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OF THE

ASIATIC SOCIETY OF BENGAL.

VOL. LXXI.

PART I. (HISTORY, ANTIQUITIES, &C.)

(Nos. I and II, and Extra Nos. I and II,-1902.)

EDITED BY THE

HONORARY PHILOLOGICAL SECRETARY.

"It will flourish, if naturalists, chemists, antiquaries, philologers, and men of science in different parts of *Asia*, will commit their observations to writing, and send them to the Asiatic Society of Calcutta. It will languish, if such communications shall be long intermitted; and it will die away, if they shall entirely cease." SIR WM. JONES.

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> > 1902.





PRESERVATION MASTER AT HARVARD



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OF THE

JOURNAL OF THE ASIATIC SOCIETY OF BENGAL,

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JOURNAL, VOL. LXXI, PART I.-1902.

Plates I and II : Copper Coins in the Wun District, Barar.

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### ERRATA.

Page 5, line 9: for Viadya read Vaidya. 6 21-22: cancel 4 after Nowwab, and place it after Amirchand in " ,, following line. 17 : for Shaja read Shuja. 8 •• ... 10, note 1: line 1: for compared read composed. ,, line 4: for Manikarn read Manikarn. 86. , 13: cancel at before somewhat peculiar. •• 23 ,, 25 : for mangalakalāça read mangalakalaça. ... ,, 22 82: " Bodhisativa read Bodhisattva. •• 39 91 87 10: "yvälämukhi "Jvälämukhi. 93 ,, 88 85: " Maņikarn-" Manikarn. ., 93 89 4: insert comma after Sitā. 11 ., 88: for State-religion by its Bulers read state-religion by its ,, 33 ,, rulers. 40 9, 15 and 21: for kalica read kalaca. ,, ... 17: for tricula "triçula. ., ,, ,,, 42 9: " Gupta made as belonging read Gupta as belonging. ,, ... 16: add railing after Buddhist. ,, ,, 44 26 : for Raugat-Tahirin read Raugatu-t-Tahirin. ,, 45 20, 28, and 33 : for A'azim read A'zam. 23 23 25 : for Jāmā-al-Magāmāt read Jam'u-l-Magāmāt. •• ... ... 2: " Mulli read Mulla. 46 ,, 11: " Anisu-t-tālibin read Anisu-t-tālibin. 37 . ,, 24: " 'Aalam read ' Alam. ,, •• 82: " buür read ba-nür ,, . ... 47 19: " Kash-mīrī read Kashmīrī. ,, \*\* 20: " Ratnā-kara and Rud-rata read Ratnākara and Rudrata. ,, ,, 31: " Harsha-karita read Harshacarita. •• . ., 1: " Babhan read Babhan. 61 ,, 11 21: " Kei read Kern. ,, ,, .... 30: " Brahman be read Brahman. ,, ,, 82: " 'my legends ' read 'many legends.' 100 •• ... 6: " 'Prithar-' read ' Prithwi-'. 108 ,, •• at end of note 4 : for ' note 14,' read ' note 2 above.' ,, 21 line 14: for 'Kalpi' read 'Kalpi.' 105, 91 15: "'Birbal' "'Birbal.' 106 " ... 1: " 'Sohanpā' read 'Sohanpāl.' " 21 ,, 11: " 'Kartik' read 'Kātik.' ., 32 95 21: "'Bīr Bal' "'Bīrbal.' ,, 107 28-4 :,, 'Bhārti-Chand' read 'Bhartichand.' \*\* ,, 28: " 'Patorib' read 'Patori 5.' " ., ... note 8; " 'note 23' " 'note 8, p. 105.' ,, "

Errata.

Page 109, line 29 : for 'Madh Kur' read 'Madhkur.' " note 3: " ' Note 26' read ' Note 6, p. 105.' ,, " 'Madhpur-Sah' read 'Madhpur Sah.' 100, line 2: ., " 'lenience' read 'leniency.' 8: ... " " ' Ghor-Jhámai ' read ' Ghor-Jhāmar.' 2: 111 •• •• " ' Baroui ' read ' Baroni.' 4: ... ,, ,, " ' Patua Kachai ' read ' Pathra-Kachar.' 20: •• ,, " " 'Gantum ' read 'Gautum.' 28 : ... ... 23 "'Bhanrer' "'Bhanrer.' 26: ,, ... 22 " 'at' read 'as.' note 1: ,, ,, " ' Pichhar ' read ' Pichhor.' 8: ,, ,, .. "'Garotka' "'Garotha.' 4: ... ,, " "'note 42' " 'note 4, p. 108.' 5: ,, ,, ... ' Chainpur.' "'Charipur', 10 ,, " ,, " 'note 50' " 'note 3, p. 110. ,, ,, •• ... line 24, 26 and 35 for 'Selim' read 'Salim, 112. ,, " 24, for 'Jehängir' read 'Jahängir.' ... ,, note 2: " 'Bhārwar' read 'Bhānrer.' ,, ,, 8: " 'Motli' read 'Moth.' •• ,, 113, line 6: " 'Indarjit' read 'Indarjit.' " 12: " 'Bhadoriya ' read 'Bhadoria.' ,, ,, ,, " 'Kuchhwäha ' read ' Kachhwäha.' : 02 ,, ,, ,, " 'Bhärer' read 'Bhänrer.' 28 : •• " ,, 25: "'Selīm' "'Salīm.' ,, ... ... 25-86 " 'Jehängir' read 'Jahängir.' \*\* ,, 33 " 88: " 'Iriobh' read 'Iriohh.' ,, ,, 17: "'Charite' "'Charitr.' 114 ... •• note 2 : " 'Muhbaras' read 'mukbaras.' ., ,, 115, line 10: " 'Chandar Bhān' read 'Chandarbhān.' ,, " 32 : " 'Kangårs' read 'Kanghårs.' 117 1: " 'Narū' read 'Nāru.' 118 " •• " 'Mān.' 20: "'Man' ,, ., ... " 'p. 129.' 119, note 5: " 'p. 87' 1: " 'note 84' read 'note 15, p. 115.' 120 \*\* 121, line 12: " 'that one day' read 'that in that one day.' 122, note 1: " 'p. 24' read 'p. 118.' ,, 123, line 12: " 'Bhāurér ' read 'Bhānrer.' •• note 5: " 'Lakhevā-dādā ' read ' Lakhwa-dāda.' ., line 6: " 'Chauderi' read 'Chanderi.' 124. ... 17: " 'Patheri' read ' Patehri.' .. 11 ... " 'note 4, p. 118. 1: "'note 74' note ,, ,, "' note 2, p. 114. 2: " 'note 76' >> 33 " 2: " 'note 35' " 'note 6, p. 107.' 125 ,, ,, 5: "'In pargana...Lalitpur,' substitute 'a pargana in the ,, ,, ... Lalitpur sub-division of the Jhansi district, north of Lalitpur.' 1 line 1: for 'Chauderi' read 'Chanderi.' 127 .. \*\* """6: " 'Duraj Singh ' read ' Durag Singh.' ,, ,, ,, 4: for 'see p. 24' read 'see p. 118,' 22 ,, ,,

### Errata.

Page 128, line 28: for 'Panari' read 'Panāri.' 8: " 'note 168' read 'note 1 above.' •• 130, note 4: " 'page 23' read 'p. 117.' •• " ,, " 'note 169' read 'note 2 above.' 5: ,, ,, ,, '(1288 A.D.)' read '(1288 A.D.); but this is of very 131 1: ,, ,, •• doubtful authenticity.' ' 4: 'note 151' read 'note 5, p. 127.' ,, .,, ,, ,, 'S. of Gwalior' read 'S. of Guna.' 7: ,, ,, ,, " "p. 87,' read ' p. 129.' 132 1: •• ... 'note 180' read 'note 8, p. 131.' 2: •• •• ,, ... " 'note 6, p. 127.' "'note 152' 8: ., " ,, " 'note 9, p. 125.' " 'note 187' б: " 'Kāli Dūn' 'Kāla Dūnr.' 183. line 6: ,, •• 7: ' note 169' 'note 2, p. 130.' note " " ,, ,, " 'Banpūr' " 'Bānpūr.' 134. line 29: ,, 'note 135' 'note 7, p. 125.' note 6: ,, •• ... " 'Gudāwal.' 2: "'Gudūwal' 135, line ,,

#### EDITOR'S NOTE.

To pp. 42 and 43 :---

Mr. R. Burn has kindly pointed out to me that the coins of Dhruva Mitra and Rudra Gupta described on pp. 42 and 43, have already been published in Cunningham's Coins of Ancient India, Plate VII, 1 and 2.

To pp. 47.60 :--

The peculiar transliteration and spelling of Oriental words adopted by Major Raverty in his paper on the Invention of Chess and Backgammon, pp. 47-60, has been retained at the author's special request.

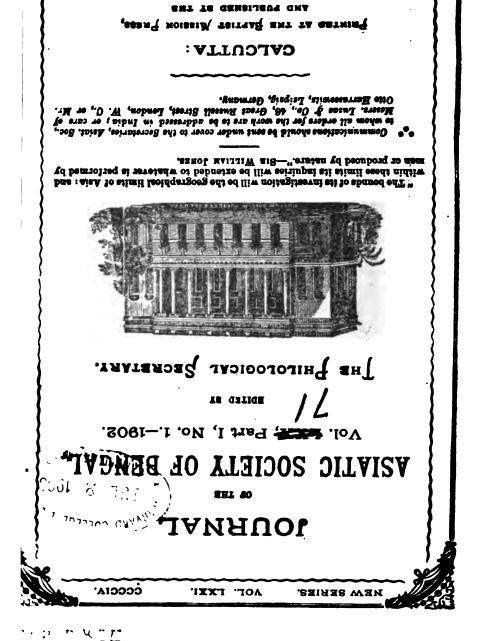
Postscript to Mr. Theobald's paper (Vol. LXX, Part I, No. 2, p. 38, 1901.)

Since writing the above I have acquired a silver 'Purana' with the figure of a Rhinoceros on it. This animal will therefore remain on the list of animals on those coins.

I find too that, by some inadvertence, the Rhinoceros has been excluded from the list of animals found on copper coins, though I had already figured it in my paper (J.A.S.B., 1890, Part I, p. 217, fig. 14), which figure was from a copper coin of Ujain. The Rhinoceros may therefore be inserted in the list on p. 71 as 55 A., that being its proper place among animals.

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## JOURNAL

### OF THE

# ASIATIC SOCIETY OF BENGAL,

2008-1-02

## Part I-HISTORY, LITERATURE, &c.

## No. 1.-1902.

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Under orders of the Council the following system of transliteration will be adopted for the future in all publications of the Society. Authors of papers for the *Journal*, Pt. I, are particularly requested to adhere to it in their contributions.

### A. FOR THE DEVANAGARI ALPHABET, AND FOR ALL ALPHABETS RELATED TO IT.

| <b>Ч</b> а, ¶Iā, ₹i, |                     |             |                       |            | <b>₹</b> 8, |
|----------------------|---------------------|-------------|-----------------------|------------|-------------|
| <b>T</b> 0,          | ৲থী∂, যী            | tai, 🖷      | au, m,                | • • • •    |             |
| <b>u</b> k,          | 👅 kh,               | <b>म</b> g, | <b>u</b> gh,          | <b>T</b> ŋ |             |
| Ч с,                 | ₹ ch,               | <b>T</b> j, | 🖷 jh,                 | <b>ч</b> ñ |             |
| <b>₩ f</b> ,         | s th,               | <b>▼</b> d, | ₹ ḍh,                 | ₹ ș        |             |
| <i>म t</i> ,         | <b>u</b> th,        | <b>₹</b> d. | ¥ dh,                 | শ গ        |             |
| Ч р,                 | ч ph,               | <b>₹</b> b, | <b>н</b> b <b>h</b> , | म m        |             |
| <b>য</b> y,          | <b>₹</b> <i>r</i> , | ₩ l,        | ब ७,                  | (ळ ])      |             |
| म् ç,                | च ₽,                | <b>U</b> 8, | <b>T</b> h.           |            |             |

In the above the virāma has been omitted for the sake of clearness. In Modern Vernaculars only;  $\mathbf{\Psi}$  may be represented by r, and  $\mathbf{\Psi}$  by rh.

Avagraha is to be represented by an apostrophe, thus चो st so 'pi. Visarga is represented by h, Jihvāmūlīya by h, and Upadhmānīya by h. Anusvāra is represented by m, thus एंघने samsarga, and anunāsika by the sign ~ over the letter nasalized, thus चैं ä, चा ä, and so on. The u-dātta accent is represented by the sign ' and the svarita by '. Thus, चांग्नि: agnih, चांगिता janitá, च kvá, च्या kanyā. The anudātta accent may be represented by '. Thus, चे च्रांभे avardhanta.

## B. FOR PERSIAN (INCLUDING ARABIC WORDS IN PERSIAN) AND HINDŪSTĀNĪ.

(The system is not applicable to Arabic when pronounced as in Arabicspeaking countries) :---

| Vowels.      | Consonants. | Sounds only found in<br>Hindūstānī. |
|--------------|-------------|-------------------------------------|
|              | <b>h</b>    |                                     |
| 8            | b ب         | +; bh                               |
| ſŝ           | y p         | <b>بې</b> ph                        |
| ļi           | é t         | th i                                |
| i إى         |             | ÷ t                                 |
| <b>د</b> ا ة |             | <b>4<sup>5</sup> th</b>             |
| · f u        | ې ڪ         |                                     |
| ū آر         | j J         | <del>ېن</del> jh                    |
| ة اور        | ē o         | to ch                               |
|              | -           | Caadla                              |

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|          |              |                       | _         |                                        |             |                       |   |
|----------|--------------|-----------------------|-----------|----------------------------------------|-------------|-----------------------|---|
| Vow      | e] <b>s.</b> | Consor                | nants.    |                                        |             | ly found i<br>ūstānī. | n |
| أى       | ai           | τ                     | þ         |                                        |             |                       |   |
| 1        |              |                       |           |                                        |             |                       |   |
| <b>,</b> | 80           | Ċ,                    | kh        |                                        | <b>.</b>    | <b>3</b> 1.           |   |
|          |              | ٥                     | d         |                                        | <b>\$</b> 3 | đ'n                   |   |
|          |              |                       |           |                                        | ŝ           | ģ                     |   |
|          |              |                       |           |                                        | <b>\$</b> 3 | <b>d</b> h            |   |
|          |              | <b>i</b>              | Z         |                                        |             |                       |   |
|          |              | ر                     | r         |                                        | 3           | F                     |   |
|          |              | -                     |           |                                        | 5           | <b>t</b> p            |   |
|          |              | ;                     | 2         |                                        | •           | •                     |   |
|          |              | ز<br>ژ                | zh        |                                        |             |                       |   |
|          |              |                       | 2.00<br>2 |                                        |             |                       |   |
|          |              | بن<br>بن              | ah        |                                        |             |                       |   |
|          |              |                       |           | ,                                      |             |                       |   |
|          |              | 5                     |           |                                        |             |                       |   |
|          |              | ص                     |           | • .                                    |             |                       |   |
|          |              | ط<br>ب                |           | • •                                    |             | •                     |   |
|          |              | <b>3</b>              | ş         |                                        |             |                       |   |
|          | •            | · 6                   | 6         |                                        |             |                       |   |
|          |              | è                     | gh        |                                        |             |                       |   |
|          |              | ٽ                     | f         |                                        |             |                       |   |
|          |              | 3                     | q         |                                        |             |                       |   |
|          |              | ى                     | k         |                                        | 45          | kh                    |   |
|          |              | ع<br>ف<br>ئ<br>ئ<br>ئ | g         |                                        | Ş           | gh                    |   |
|          |              | J                     | ĩ         |                                        | •           | 8-                    |   |
|          |              | r                     | m         |                                        |             |                       |   |
|          |              | ،<br>ن                | n         |                                        |             |                       |   |
|          |              | ں<br>ر                |           | mananting a                            |             |                       |   |
|          |              | 0                     |           | presenting a:<br>i, by ~ on the        |             |                       |   |
|          |              | و                     | w (or r   |                                        |             |                       |   |
|          |              | Á                     | h         | ······································ |             |                       |   |
|          |              | ى                     | y<br>y    |                                        |             |                       |   |
|          |              | Hamzah f              |           | necosce wy ) '                         |             |                       |   |
|          |              |                       | (         | necessary)                             |             |                       |   |

The J of the article J in Arabic words should be assimilated before the solar letters; and the vowel u which often precedes the article and absorbs its vowel should remain attached to the word to which it belongs. Thus قبال الدرائي.

Tanwin may be rendered by <u>n</u>-e. g., ittijāqan. Alif-i maqsūrah should be rendered by <u>ā</u>.

Final 3 need not be written in Persian and Hindüstäni words but should be written in Arabic words.

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### Postscript to Mr. Theobald's paper (Vol. LXX, Part I, No. 2, p. 38, 1901.)

Since writing the above I have acquired a silver 'Purāņa' with the figure of a Rhinoceros on it. This animal will therefore remain on the list of animals on those coins.

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## JOURNAL

### OF THE

## ASIATIC SOCIETY OF BENGAL

Part I-HISTORY, LITERATURE, &c.

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No. 1.-1902.

Account of late Maharaja Nubkissen Bahadur.-By S. C. HILL, Esq.

[ Read 5th March, 1902. ]

A few months ago Mr. N. N. Ghose published a most interesting Memoir of Maharaja Nubkissen. Amongst the documents consulted for the compilation of this Memoir was "An Account of the late Maharaja Nubkissen Bahadur, required and delivered to A. Sterling, Esq., Persian Secretary to Government, on the 30th April, 1825."

Maharaja Nubkissen died on the 22nd November, 1797, and the above Account is said to have been written by Maharaja Sir Radha Kanta Deb Bahadur, K.C.S.I. It may therefore be taken as an authentic narrative of some of the leading events in the life of the celebrated Diwan of the Honourable East India Company. I have been permitted to publish it in the Journal of the Asiatic Society by the courtesy of Raja Binay Krishna, a descendant of Nubkissen and therefore the hereditary friend of the British Government whose power his ancestor assisted to establish.

This all too short Account should be extremely interesting to the historical student not only because the early history of the British connection with India is attracting so much attention at the present moment but because the proper understanding of Hindu character depends largely upon our being able to obtain side-lights illustrative of it as it

J. 1. 1

### 2 S. C. Hill-Account of late Maharaja Nubkissen Bahadur. [No. 1,

appeared before the mantle of European customs and language began to obscure its features from European eyes. If anything is evident from a consideration of this *Account* it is that the Hindu of Bengal, in all the essentials-of character, is unchanged and unchangeable.

In the first place the apparent resignation of the Hindu to "the powers that be" does not imply the death of his national and religious feelings. In 1756 the Hindus were looking for a deliverer. A Frenchman, resident in Chandernagore at the time of the capture of Calcutta by Siraj-ud-daula, wrote to Paris that the people of the country "hugged themselves in the expectation that the English would defeat the Nabob and deliver them from his cruelty and oppression." In fact it was the intrigues of the Hindu merchants and bankers at the Murshidabad Darbar that brought about the rupture between the English and the Nawab, and, when they saw their new allies beaten, the Hindus with a loyalty not often ascribed to them, took every opportunity of protecting them from the Nawab's vengeance. Their action was none the less effectual because it bent to the storm and was secret.

The Hindu has always been fond of what may be called "political speculation," and clever young men of this *reputedly timorous* race have always been prepared to risk life and property by lending a helping hand to brave men in adversity on what appears an almost impossible ohance of recovery. Nothing could have appeared more hopeless than the condition of the English at Fulta, yet Nubkissen thought it wise to urge his relations to save these apparent outcasts from starvation.

It is not the Hindu only who worships the great Goddess Chance, but the Hindu delights in recalling the influence of trifling incidents upon the careers of great men. Nubkissen walked in a certain street on a certain day, and so became the Company's Diwan.

Finally as an illustration of Asiatic reserve and Asiatic love of dramatic effect one may notice the disclosure of Nubkissen's rank. A man of high birth, he accepts a post, which, though lucrative and probably honourable amongst his fellow-countrymen, gives him no position commensurate in the eyes of his European employers with his real rank. It is disclosed by an enemy in a way which is intended to mortify as well as damage him, but, owing to the lucky accident of Clive's intuitive knowledge of Asiatic character, the disclosure only adds to his honour and confirms his position.

I have vainly searched the records of the Government of India for evidence of Nubkissen's having assisted the English at Fulta, but the accounts of what happened at Fulta are extremely meagre and, though the secret supply of provisions by natives under cover of night is mentioned, the names of these natives are not given. This is no reason for doubting the family tradition,<sup>1</sup> for it is certain that Nubkissen's friends were influential people at Fulta, and it was only the inhabitants of the immediate neighbourhood who could hope to correspond with the English without attracting the notice of the Nawab's spies. How this brought him to the notice of Lord (then Colonel) Clive is explained in a note by Babu Nilmani Mukerjea, late Principal of the Sanskrit College, Calcutta, which I append to the Account.

S. CHARLES HILL,

Officer in charge of the Records of the Govt. of India.

January 14th, 1902.

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Account of the late Muharaja Nubkissen Bahadur required by and delivered to A. Sterling, Esq., Persian Secretary to Government on the 30th April, 1825.

As an account of this family from its first founder and his immediate descendants would contain an immoderate length of detail (they having held respectable situations under the former sovereigns of Bengal) I will begin with his eighteenth descendant named Daveedas Mujmocadar; this individual was appointed Kanoongoe of Pergunnah Mooragacha, &c., in the District of 24-Pergunnaha, where he resided having removed his dwelling-house from his native village of Cansona, near Moorshidabad. On the demise of Daveedas Mujmooadar his sons Sahasracsha Mujmooadar and Rucminikant Byabaherta presented themselves to Nowwab Mahabutgunge<sup>2</sup> at Moorshidabad, who was pleased to appoint the former to his late father's office, and the latter a Manager of the Estate Casubram Roy Chowdhoory then minor Zemindar of Pergunnah Mooragacha, &c. After the death of Rucminikant Byabaherta his son Rameswar Byabaherta having succeeded his father, paid into the Nowwab's Treasury the Revenues of the above Pergunnah amounting to more than the former settlement, in consequence of which Casubram Roy having attained to full age confined Ramswor Byabaherta in his own house, on account of which Ramchurn Byabaherta (son of Rameswor Byabaherta) went to Moorshidabad and introduced himself to the Royrayn<sup>8</sup> Chain Roy and delivered in writing in the Nowwab's Record

<sup>1</sup> The Rev. J. Long, as Mr. Ghose points out, mentions Nubkissen's assistance of the English as an undoubted fact. Governor Verelst in his "View of the English Government in Bengal" writes: "Nubkissen is a native Hindu, who had been extremely sealous in the English cause during the troubles preceding Meer Jaffer's elevation to the subahdarry." This, I think, is as near as we can get to a complete confirmation of the family tradition.

- <sup>2</sup> Mahabat Jang or Alawardi Khan, Nawab of Bengal.
- 8 Rayrayan. A title bestowed by the Muhammadans on Hindu noblemen.

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an additional Tahud or agreement for the sum of 50,000 Rupees for the Pergunnah of Mooragacha, and was appointed Ohdadar or Revenue farmer for that Pergunnah, and obtained the release of his father from confinement and revenged on Casubram Roy by imprisoning him and paid in sums to the Nowwab's Sircar over and above the Tahood executed by him and afterwards quitted his abode in Pergunnah Mooragacha and built a house at Govindpore in Calcutta where he having left his family proceeded to Moorshidabad, and presented himself to the abovementioned Nowwab and Royrayn, and was appointed Salt Agent and Collector of Hidgelle, Tumlook, Mohisadub, &c., and discharged his duties to the great benefit and entire satisfaction of his superiors.

In the meantime Nowwab Muniruddeen Khan, brother of the Subadar of Arcat, having quarrelled with his brother came to Nowwab Mahabutgunge, Subadar of Bengal, who showed him much respect and nominated him Subadar of the Province of Cuttack and also appointed Ramchurn Byabaherta Dewan of that Province and sent them with a considerable force for preventing the incursions of the Mahrattas. They accordingly arrived at Midnapore to suppress the Pindaras, and from thence marched towards Cuttack, but their Army was at a great distance excepting a few people of their retinue who accompanied them when a number of Pindaras consisting of about 400 Horsemen, suddenly fell upon them from the woods, and plundered and cut off the Nowwab and Dewan with their attendants who fought them with great bravery.

At that time Dewan Ramchurn had three infant sons, viz., Ramsundra Deb the eldest, Manickchandra Deb the second, and Nobocrishna Deb the youngest. They were very much distressed at the loss <sup>1</sup> of their father, and their paternal property by the death of Fukher Tojjar at Hooghly in whose hands the same had been deposited. Their mother defrayed the expense of their maintenance, education and marriage with her own money and built a new house at Govindpore in consequence of the old premises having been encroached on by the River. Some time since that Fort William was erected at Govindpore, after the residences of Individuals of that village having been removed, they received from the Hon'ble Company 10 Biggahs of ground in Arpooly<sup>8</sup> and 5,000 Rupees for buildings in lieu of their dwelling-house at Govindpore. The ground received in Exchange at Arpooly not being sufficient for habitation Ramsundra Deb purchased a house, formerly belonging to Ramsunker Ghose, at Sootanooty in Calcutta with the above money after which

<sup>1</sup> Fakhretujjar, *i.e.*, the pride of merchants. This name is mentioned in a letter from Mr. John Young, Prussian Agent at Chandernagore, dated July 10th, 1756.

<sup>\$</sup> Arpooly in Calcutta.

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Nobocrishna Deb bought more grounds and built suitable buildings, and resided there with his numerous family and relatives. When Ramsundra Deb became fit for business, he at first did the duties of Aumeen or Supervisor of Panchcote commonly called Punchet<sup>1</sup> and other places and supported his family for some years.

In the year 1756 all the nobles and principal persons of the Provinces of Bengal and Behar were dissatisfied with the tyrannical conduct of Nowwab Seraj-ud-dowlah, whereupon Rajah Rajbullabha <sup>2</sup> (who was a Viadya by caste of Dacca) fled from Moorshidabad and took refuge at Calcutta, in consequence of which the Nowwab issued a Perwannah to Mr. Drake then Governor of Calcutta, directing him to seize and send the Rajah to him but Mr. Drake without complying with this requisition answered the Perwannah stating that he would make the Rajah pay immediately if the Nowwab had any demands against him, on sending particulars of the same, upon which the Nowwab was very much incensed at Mr. Drake, and wrote him another Perwannah threatening him that if he did not deliver up the Rajah on receipt of the Perwannah he would send his Troops to seize the Rajah and to drive out the English from Bengal, in consequence of which Mr. Drake and other English gentlemen were thrown into perplexity, they not having sufficient force to repel the enemy when Rajah Rajbullabha assured them that all the Sirdars who were dissatisfied with the Nowwab would never fight the English and accordingly all the Ministers and Sirdars of the Nowwab joined together and sent a Persian Letter from Moorshidabad to Mr. Drake, by a Hurcarah<sup>8</sup> who delivered it with the instruction that it was a Letter which contained a secrecy and should not be read nor replied to by the agency of any Musulman Moonshee but that a Hindu should be employed for that purpose, for which reason Mr. Drake without shewing that Letter to the Company's Moonshee Tajuddeen, ordered his Hurcarahs to search for and bring a Hindu Moonshee from Calcutta.

On that very day Nobocrishna Deb was gone to Burrah Bazar in the afternoon, when one of the Hurcarahs of Mr. Drake knowing by inquiry that he was acquainted with the Persian language took him to Mr. Drake to whom Nobocrishna Deb read the Persian Letter and explained the contents thereof and wrote an answer to it, although he was then a youth attending school, yet he executed this arduous task, by the superior mental faculties he was endowed with and thereby met

<sup>1</sup> Panchet in the Manbhum District.

<sup>3</sup> The English account is that Rajbalav's son Krishna Das took refuge at Calcutta with all his father's treasures.

<sup>8</sup> Harkara, one who does every business. Here a messenger or spy.

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with the highest approbation of Government who were pleased to appoint him to the office of a Moonshee of the East India Company and granted him a Palankeen with Bearers for his conveyance and 200 Rupees for Dress.

After the above the Nowwab Seraj-ud-dowlah attacked Calcutta with a grand Army in June 1756, and the English baving but a small force did not engage in hostilities, and the Governor and most other English gentlemen retired to Madras<sup>1</sup> on board of ships and the rest were imprisoned in the Black-hole, and all the inhabitants of Calcutta fled to different places. The Nowwab having taken Calcutta, named it Alinugur and dominated one Rajah Manickchunder Governor of Alinugur, and returned to Moorshidabad. Mr. Drake and the former members of Council having arrived at Madras brought Colonel Clive on board of one of Admiral Watson's fleet who landed with his force at Fulta (otherwise Colpy)<sup>2</sup> within six months and took the Forts of Budge Budge, Tana Magooa, and Aligar<sup>8</sup> (which was built and so named by Manickchunder) and defeated the Nowwab's Army and surprised Rajah Manickchunder who was then amusing himself at Nautches and caused him to flee to Moorshidabad and took possession of Calcutta, in January 1757, when Moonshee Nobocrishna waited upon Colonel Clive. and resumed his Office.

Subsequently in 1757 Nowwab<sup>4</sup> Seraj-ud-dowlah attacked Calontta again, and encamped in Amirchund's garden called Hulsy Baug whereupon Colonel Clive deputed Moonshee Nobocrishna with an Engineer Officer under the pretence of making proposals of peace and sending presents to the Nowwab and his attendants. The above two Officers of English Government brought with them in writing a particular account of their encampment and Colonel Clive marched his force up to the Nowwab's Camp at the end of the night and blew up the Nowwab's Tent and those of his Sirdars by the first fire from Cannon, the Nowwab however saved his life by having prudently removed to another Tent during the night and so escaped with the loss of the greatest part of his Troops and battle and Colonel Clive followed him to Plassey where he fought a dreadful battle with the Nowwab's Commander-in-Chief

1 The English retired only to Fulta where they were reinforced from Madras.

<sup>2</sup> Colpy or Kalpi, about 20 miles below Fulta.

<sup>8</sup> Tanna Muckwa in Bennell's Map. Hunter's Gazetteer says :--- "An old port on the Hughli River, opposite Fort Aligarh in Garden Reach, an old suburb in Calcutta." It is said that the old Fort of Tanna was on the site of the house occupied by the Superintendent of the Botanical Gardens.

• Better known as Omichand, the great banker, who threatened to betray Clive and the English to Seraj-ud-dowlah and was himself ontwitted. 1

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Meer Mudun <sup>1</sup> and slew him, and totally defeated and dispersed the Nowwab's Troops.

Another account says that the above successful attack on the Uamp of Nowwab Seraj-ud-dowlah, induced him in February 1757 to conclude a treaty to the greatest advantage of the English but scarcely had this contest terminated when news was received of a War having been declared between England and France and the reduction of the French power became an object of importance to the English. Nowwab Seraj-ud-dowlah informed the Council of Calcutta that if hostilities were carried into his country by the English, he would assist the French with all his power-However after a vigorous assault, Chandernagore was taken by the Eng. lish and the Nowwab having shown marks of displeasure at this event it was resolved to depose him by supporting Mir Jafer Aly Khan (who had married the sister of Aliverdy Khan Seraj-ud-dowlah's predecessor). This was followed by a decisive action on the Plains of Plassey in which the Nowwab's Troops were routed in every direction and he was obliged to fly from his Capital in the disguise of a Faquir and was brought to Moorshidabad and beheaded by Meer Jafer's eldest son.\*

Jafer Aly Khan from Letters having passed between him and Mooushee Nobocrishna did not give battle, but formed an alliance with Colonel Clive who took possession of Moorshidabad and declared Jafer Aly Khan to be the lawful Nowwab of Bengal. With the sanction of Colonel Clive Moonshee Noboocrishna<sup>8</sup> settled the terms of the Soobadary agreement with Nowwab Jafer Ali Khan, and made arrangements for conducting the affairs of the Provinces in concurrence with the Naib Soobadar Nowwab Moozufferjung and fixed an annual Nizamut allowance at 18,00,000 Rupees and the expenses of the Soobadary, &c., at 7,00,000 Rupees making in all 25 lacks of Rupees (some say 24 lacks) and returned to Calcutta with Colonel Clive, and was crowned with the highest esteem and regard of that gentleman for his faithful discharge of the important public duties intrusted to him, after which Colonel Clive proceeded to England assuring Moonshee Nobocrishna that he would return soon with the appointment<sup>4</sup> to a distinguished situation.

In the year 1761 Mr. Vansittart, being appointed Governor of

<sup>1</sup> The only faithful general of Seraj-ud-dowlah. The Hindus claim him as originally a Hindu, which is inconsistent, I believe, with the title of Mir Seraj-uddowlah was present at the battle and fied when he heard Mir Madan was killed.

<sup>3</sup> Miran, himself killed by lightning about three years later.

<sup>6</sup> The official accounts say that Mir Jafer employed Jagat Seth as his Agent with the English.

• Mr. Henry Vansittart was Governor, from July 27th, 1760, to November 1764.

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Calcutta, nominated Ramchurun Roy as his Dewan and sent for Nowwab Jafer Aly Khan and Nowwab Mozufferjung from Moorshidabad to Calcutta on account of some faults that they had committed and displaced them from the Musnud and instated Nowwab Kassim Aly Khan Soobadar in their stead. Shortly after Kassim Aly Khan removed his seat from Moorshidabad to Monghyr and treacherously killed all the English gentlemen of Moorshidabad, Patna, Cassimbazar, &c., and also inhumanly destroyed almost all the nobles of Bengal, namely, Royrayn Ommed Roy, Maharajah Ramnarain,<sup>1</sup> Rajah Rajbullabha with his son and Jugut Sate with his brother and others, excepting Nowwab Jafer Aly Khan, Nowwab Muzufferjung and Moharaja Doollu Charan who were then in Calcutta.

Afterwards Major Adams<sup>2</sup> went to war against Kassim Aly Khan, accompanied with force<sup>3</sup> and Moonshee Nobocrishna and fought a signal battle at Oady Nullah, for four days successively (some say nine days) and defeated Kassim Aly Khan's Trobps and gained victory over him pursuing him across the Nullah, he however fled to Nowwab Shaja-ud-Dowlah at Lucknow. Moonshee Nobocrishna having been employed for three days in the execution of the orders of Major Adam fell sick in consequence of the extreme fatigue and was confined in his Tent on the fourth day when the plundering soldiers of the Nowwab robbed his Tent and attempted to cut him off, but he ran away, and jumped into the Nullah and swam it over and saved his life by joining the British Army. Major Adams having been most arduously employed in this war, was taken dangerously ill, for which reason Moonshee Nobocrishna and Mr. Skinner were bringing him to Calcutta in a boat but this meritorious officer unfortunately died near Calcutta.

In 1765 Lord Clive being appointed Governor-General of India with unlimited powers arrived at Calcutta on the 3rd May and Mr. Vansittart embarked for Europe previously to that without seeing his Lordship, in consequence of the calamities occasioned by his nomination of Kassim Aly Khan Soobadar of Bengal. Lord Clive was pleased to employ Moonshee Nobocrishna confidentially as before and after consulting him reinstated Nowwab Jaffer Aly Khan Soobadar and Mozufferjung Naib Soobadar, after which Moonshee Nobocrishna accompanied Lord Clive as far as Allahabad (some say Delhi) and concluded a treaty with his Majesty Shah Alum, and his Highness Nowwab Shaja-ud-Dowlah to the satisfaction of his Lordship, and obtained from his Majesty on the 2nd Showal 1179 Higeree (A.D. 1765) a dignity of Munsub

1 Raja Ram Narain, Deputy Governor of Bihar.

\$ i.e., Major Adams.

8 2ud August, 1763.

Punjhuzaree,<sup>1</sup> three thousand Suwars or Horsemen Title of Rajah Bahadoor Palky Jhalerdar Toogh, Nukarah, &c., and also from his Highness valuable Khelats and other marks of honor and on the same day a Munsub of one thousand five hundred Suwar and Title of Roy were conferred on the above mentioned two eldest brothers of Bajah Nobocrishna, who then proceeded with his Lordship to Benares and Azeemabad and consecrated an Image of the Deity Shiva in the Temple of Visweswora, and effected the settlement of the Province of Benares with Moharaja Bulvant Singh and that of the Province of Behar with Moharaja Setab Roy and came back to Calcutta with his Lordship.

One day as Lord Clive was engaged in the Council Chamber in consultation on the subject of rewarding the useful services rendered by Rajah Nobocrishna Bahadoor, a Persian Letter in answer to that of Lord Clive arrived from the Soobadar of Arcat, and his Lordship desired Rajah Nobocrishna to read and explain that Letter and he, finding the contents thereof to be adverse to his interests, remained silent for a moment but was obliged to interpret it on being urged by his Lordship. The substance of it was as follows: "It is my wish also that the war with English Company being ended and a treaty concluded with them, both the Powers continue in good terms, but Rajah Nobocrishna (who manages the Company's affairs, being the son of Dewan. Ramchurn, the associate of my enemy Mouneeruddeen Khan) will obstruct the intended negotiation for which reason it is needless to make mention of Peace during the continuance of Rajah Nobocrishna."

The subject of the above Letter being explained to Lord Clive, he desired Rajah Nobocrishna to await in a room adjoining the Council Chamber for a moment who therenpon was alarmed at the probability of his dismissal, but on the contrary, his Lordship having consulted with the Council, called Rajah Nobocrishna and said thus : "Why did you not inform me so long that you were of such a noble family? The Company have derived great benefit from your services and laborions undertakings. Not knowing the rank of your descent we could not show you the respect due to it. From this day, we appoint you Dewan to the Hon'ble Company and the title and Robe of Honor, &c., shall be conferred upon you shortly."

In the 1180 Higeree (A.D. 1766) Lord Clive was pleased to get a Furman or Mandate from his Majesty Shah Alum granting Rajah Nobocrishna Bahadoor a dignity of Munsub Shush Huzary,<sup>2</sup> Four thousand

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<sup>&</sup>lt;sup>1</sup> Munsub Punjhusaree, a title bestowed with a khilat of 5,000 rupees value Palky Jhalerdar Tope, a fringed and covered palankeen. Nukarah, the right to have a kettle drum.

<sup>\$</sup> i.e., 6,000.

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Suwar, and Title of Moharajah and to bestow upon him a gold Medal with a Persian Inscription, as a Testimonial to all India of the regard which Lord Clive and the Hon'ble Company had for his faithful and honest services, and a Khelat of ten Parcha I with Precious Garland of Pearls, Chowkurah, Jeggah, Sirpech, Murussa, &c.; and also Shield, Sword, Elephant, Horse, Jhalerdar Palky, Assa, Sotta, Bullum, Choury, Morechul, Ghury, &c., and allowed him a Guard of Sepoys to watch his Gate and fixed to him a monthly salary of 2,000 Rupees, upon which Moharajah Nobocrishna Bahadoor thankfully represented to Lord Clive that through his Lordship's benevolence he was not under the necessity of receiving from the Hon'ble Company such a large sum per mensem but that a monthly allowance of Rupees 200 might be fixed hereditarily to preserve the character of his family; and his Lordship accordingly complied with his representation and kindly handed him to his conveyance on an Elephant and the Moharajah came home in a grand procession scattering Rupees all about him and received the sum of 200 Rupees every month from the General Treasury during his life-time, but it was stopped after his death.

In the year 1767 Lord Clive gave the charge of Government to Mr. Varelst<sup>9</sup> and proceeded to England and Moharaja Nobocrishna Bahadoor continued in the capacity of political Dewan to the Hon'ble Company and discharged every part of his duties to the utmost satisfaction of Mr. Varelst. At that time the old mother of the Moharaja died and he performed her Sraddha or obsequies at such an immense sum of money that no Sraddha of the kind has before or after been made by any person. On hearing this, the Members of the Council informed Mr. Varelst that Moharaja Nobocrishna having expended all his money in the celebration of his mother's funeral rites, distributed in alms many Lacs of Rupees belonging to the Hon'ble Company's Treasury in his charge. After the completion of the Sraddha when the Moharaja went to visit Mr. Varelst, he told him in jest saying: "I am informed that you lost your sense and have expended the whole of your wealth as well as several Lacs of Rupees belonging to the Company's Treasury in the

1 i.e., of ten pieces. The Khilat or dress of honour was compared of different pieces and the number of the latter was graduated in accordance with the honour intended to be bestowed. Chow Kurah, a four cornered cap. Jeggah, a feather on the Serpaith, which is a bund clasping the forehead. Murussa, a turban. Assa, a straight silver staff. Sotta, a shorter silver rod with a bent handle. Bullum, an arrow. Chowry, a silver rod with a horse-tail attached. Morechul, a silver rod with peacock feathers. Ghury, a kind of plate which was supposed to break when poisoned food was placed upon it. These were manufactured at Ghore, near Candahar.

<sup>9</sup> Mr. Harry Varelst was Governor, from January 29th, 1767, to December, 1769.

performance of your mother's obsequies." Moharaja Nobocrishna, as soon as he heard the above, locked up the Treasury (then called Money Godown) and left the key on the table of Mr. Varelst, soliciting him to remove his doubts by sending for the person who accused him together with one of the Members of the Council and desiring them to examine and receive the Cash in Balance at the Treasury, upon which Mr. Varelst endeavoured to pacify the Moharaja by using expressions of politeness and wished him to depart in the temper he came, but the Moharaja said that if the Cash at the Treasury was not examined such measure would degrade his character. Mr. Varelst said to the Moharaja: "I am well acquainted with your character and conduct, there is no doubt but the Cash is in the Treasury;" notwithstanding which, the Maharaja replied saying: "As long as the Cash shall remain unexamined the imputation both on you and me shall increase." Finding the Moharaja inflexible, Mr. Varelst sent a Counsellor to the Treasury who examined the Cash account and found a surplus of 7,00,000 Rapees belonging to the Moharaja and apprized Mr. Varelst of it, who was very much ashamed, apologized and delivered back the key of the Treasury to the Moharaja, but the Moharaja declined receiving the key saying, when you were informed of the embezzlement on my part, you could disgrace me immediately by summoning and detaining me until you had examined and received the Company's Treasure, but, instead of doing so, you have kindly preserved my character. In your absence no other Governor will do me so much favour, for which reason I think it proper to resign to you all the high and important offices of the Hon'ble Company, which I have the honour to hold and not to do service any more from this day.

On the next day, Moharaja Nobocrishna Bahadoor removed all the public offices which he had in his house to Mr. Varelst, namely, Moonshee Dufter (Persian Secretary's Office), Aruz Beguy Dufter (Office of the Individual presenting all Petitions and representing such as may have been made verbally), Tuhseel Dufter of 24-Pergunnahs, Collector Office of the District of 24-Pergunnahs, Maul Adaulut of 24-Pergunnahs (Financial Court of that district), Cutchery of Jota Mala (a tribunal trying causes relative to tribe or caste), &c., and remained unemployed, devoting the remainder of his days to Beligion and preparing himself for future life.

Moharaja Nobocrishna Bahadoor presented a valuable spot of ground for the erection of Saint John's Church, the present cathedral, without accepting the sum of 45,000 Rupees offered by the Council for the same and constructed a Highway known by the name of Rajah's Jangal or Dike from Behala near Calcutta to Coolpy—about 16 coss in

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length-at his own expense of upwards of one Lac of Rupees conformably to the wish of Lord Clive and constructed a wide road leading to his dwelling-house, called Rajah Nobocrishna's Street, by purchasing grounds at a considerable cost and paved and repaired it at his own expense during his existence, and rendered great assistance in establishing House Tax in Calcutta and obtained a Talookdary Grant for Mowza Sootanooty, Bagbazar and Hogulcoondy in 1778 from the Hon'ble Company in exchange for Monza Nowparah, &c., belonging to him, whereby most part of the respectable and opulent native gentlemen of Calcutta became his tenants, and made a settlement for the District of Burdwan in 1780 and preserved the sources of Government Revenue as well as the Estate of Moharajah Dheraj Tejchunder Bahadoor during his minority. He supported and assisted his numerous kindred and relations as well as respectable Cooleens or individuals of eminent descent and Pundits or learned men of Bengal of renown and encouraged all kinds of Arts and Sciences and gratified the wishes of Actors, Dancers and Singers from different parts of the World. He was the leader of fashion and model of imitation to the native community of this Metropolis and received the first reverence as well as Chaplet and Sandal before others at any Assembly he or his family was present agreeably to the Hindu custom. His house was honoured with the presence of almost all the former Nowwabs, Soobadars, Royrayns, Governor and Rajahs. He died on the 22nd November, 1797, leaving a large Estate, both real and personal, amounting to one crore of Rupees more or less, and two legal heirs or representatives, viz. :

lst, Baboo Gopeemohun Deb, who was third son of Moharajah Nobocrishna's eldest brother—Ramsundra Deb, and adopted by the Moharajah for his son, agreeably to the Hindu Law, and 2nd, Moharaja Rajorishna Bahadoor, who was born some years after the adoption and died on the 19th of August, 1823. Gopeemohun Deb has only one son named Radhakant Deb (who is the Author of the Bengalee Spelling Book, and Sanscrit Dictionary, entitled Sabda Calpa Druma and a Director of the Vidyalaya or Hindu College, Member of the Calcutta School Book Society, Secretary and Member of the Calcutta School Society and Vice-President of the Agricultural Society). Maharaja Rajorishna has left eight sons, of whom Baboo Sivacrishna Deb is the eldest.

### Note by Babu Nilmani Mukerjea, dated 24th July, 1899.

"About 30 years ago, when I visited the English School at Sarisa, near Diamond Harbour as Deputy Inspector of Schools, I met some members of the Bose family of that village, and our conversation turned on one occasion upon the antecedents of Maharaja Nabakrishna Deb. I ł

was informed that the mother of Nabakrishna had come of the Sarisa Bose family and that young Nabakrishna used to visit his maternal uncle's house now and then.

"When Colonel Clive halted at Fulta on the Hughli, on his expedition to re-capture Calcutta from Nowab Sirajoodowla, he was put to great trouble for want of provisions. Nabakrishna was then staying with his maternal uncles at Sarisa. Having received news of Clive's difficulties, he began to collect rice, ghee, live stock, &c., and succeeded in getting a deceut supply through the interest of the Bose family, who possessed great influence in that part. Young Nabakrishna had then a presentiment that he would make or mar his fortune, though his relatives were not very sanguine about the success of his adventure; they had then misgivings and endeavoured to dissuade him at first, but he was not a man to be deterred from an undertaking on which he had his heart.

"He then started for Fulta which lay about 6 miles from Sarisa presented himself before Clive who was struck by his pre-possessing appearance and resourcefulness, and accepted whatever provision he had brought with great joy. Nabakrishna followed the expedition up the river, and rendered useful service to his employer Clive by bringing provisions as far as Budge-Budge, where Manickchand, the Nowwab's Governor of the local Fort, showed some fight. Since that time, Nabakrishna who was well-versed in Persian, the lingua-Franca of India at that time, and had a smattering of English, was employed by Clive as his Munshee and rose step by step into high favour, till at last in 1765, when the Emperor of Delhi conferred the Dewani of Bengal, Behar and Orissa, on the East India Company, he played a prominent part by acting as interpreter between Clive and the Emperor, for which he was eminently fitted on account of his knowledge of Persian and English."

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### The Secret Words of the Cühräs.—By Rev. T. GRAHAME BAILEY, B.D., M.A., Wazirābād.

### [Read 8th January, 1902.]

Like other tribes, which from the practice of generations, have become addicted to evil deeds, the Cūhrās have a secret vocabulary which greatly facilitates the commission of crime and equally hinders its detection. In their case the special words are connected chiefly, on the one hand with thieving and house-breaking, and, on the other, with the eating of cattle which have been found dead, and consequently with the means employed to ensure a moderately good supply of such dead animals. Throughout this article the secret words will be in italics.

Without a knowledge of these words one cannot become thoroughly acquainted with the Cührās or with their ways of thought and action. In order to get right to the heart of things let us accompany an expedition which has as its object the plundering of some rich man's house. Some churm (thief), who always keeps his eyes open has discovered a kuddh (house), belonging to some Rārkā (Hindū) or Ghir balā Musalmān). He seeks out another  $K\bar{a}!\bar{a}$  (thief) from among his own people, the Rünge (Cühras), or he may find an obliging Bhatu (Sasi) ready to help him. Having painted in glowing colours the richness of the house in bhimte (rupees) and bagëlë (do.) and harjiye (paise) and thëlë (a kind of ornament), he says 'calo gul laiye (let us break into the house). We shall follow these men, as on a dark moonless night they set out. Having reached the house they produce their tombū (iron instrument for house-breaking, an oriental jemmy) and set to They take the precaution of placing by their side several chikāre work. or clods of earth with which to assail any unwelcome intruder. The hole is finally made and the thief leaving outside his kārkī, stick, and paintri or cakhal (shoes), and telling his litara (confidant) to keep a sharp look out, enters the house. If he finds no one inside he will venture to light a ghasāi (match). Suddenly a small clod of earth drops near the house-breaker; this is the neola (piece of earth thrown as a warning of impending danger). He looks round in alarm and hears the whispered words "kajjā cāmdā i" (a jāt is looking). This interruption in his gaimī (thieving) he feels to be most inopportune. He feels still more ill at ease when he hears another hoarse whisper "thip jā (hide yourself) palwē hōjā" (get to one side). He calls back "kaiykar kar (throw a clod of earth) lōth lai sū" (beat him or kill him) and emerges from the house. The neodī (theft) has not prospered. The two thieves flee by different ways to their homes, and next day discuss with great astonishment, bordering on incredulity, a report which has got abroad that a kajjā has been attacked by two Cūhrā churm (thieves) who were engaged in lāllī (robbery) and has almost lug gayā (died).

An account given me of an event which took place in a town in which I was staying will serve as an introduction to the subject of cattle poisoning and carrion eating.

"Aj ik iththē dāhdī sõhwī tē tomī Kaŭsī lug gai. Te kisē To-day a here very fine and fat cow died and someone *Rārkē*ā dē koļ *põlkē nūkar* kitī bhaī *Rī*ā wiceō

to-the-Hindūs having-gone accusation made that out of the Cūhrās kisē jā tiārī sairī, jā lānjī mārī, jā kisē tarā someone either poison gave or poisoned-iron-point smote or in some way nāļ gand dittī. Tē Rārkčā kathāyā sī bhaī asī na inhā nū

killed. and the Hindu said that we neither to-them khānjarā tilma dēšgē tē na inhš nū lāprā sairāgē the carrien to eat will give and not to them the skin will give.

Each company of Cührās is supposed to possess at least one rukhm, or cattle poisoner. It is his business to arrange for the poisoning of suitable animals. He charges six annas for a cow and eight annas for a buffalo. The poison is made up into little balls, white, and black, and green, the black and green being more potent. One tola put into the food of a cow is sufficient to cause death in 24 hours, but a buffalo requires two tolas. They say that a horse will not take food with the poison in it. For this reason they kill horses with poisoned sharp-pointed instruments, which are made in two sizes; the smaller can be concealed in the hand and is called a *lanji*, the larger is a short stick with the poisoned iron point affixed to the end, and is called *chaggi*.

It is extremely hard to get Cūhrās to admit any knowledge of these practices or even of the secret words. After speaking to a considerable number of the people I have come to the conclusion that a fair proportion of them are genuinely ignorant of the less common words of their vocabulary. Militating somewhat against this is the fact that they, one and all, delight in the songs sung by their giyāņis, which contain a proportion of secret words. There is little doubt

### T. G. Bailey—The Secret Words of the Cuhras. [No. 1,

that this Pashtō, as they call their special phraseology is better known in some places than in others, and in all cases it is extremely probable that those men are best acquainted with it who habitually give themselves up to criminal pursuits. The Säsis call their own specially secret dialect Fārsī. It is hardly necessary to point out that in neither case is there any connection with Pashtō or Persian.

Unlike the Säsis the Cühräs have no grammar of their own. They use ordinary Panjābī, inserting, when there is need for secrecy, their private words which others will not understand. If it be objected that their hidden vocabulary is too meagre to allow them much freedom in this exercise, it may be answered that the subjects in connection with which they desire secrecy are very limited, and it is wonderful how far it is possible, even with a few unknown words, to mystify the uninitiated.

Sometimes to disguise an ordinary word the letter 'm' is inserted. Thus a little boy said to me -" uh Kūtrā Ghirbaliā dē skamūl poliā jē," --that boy (to the) Musalmāns' school gone has." Here 'skamūl' is used for 'skūl.'

One of my informants amusingly but forcibly illustrated the unwillingness with which  $C\bar{u}h_T\bar{a}s$  will tell strangers anything about their argot. He confided in me only when all doors were shut, and even then the slightest sound used to make him start and look round to find out if anyone was listening or watching.

The following song, which sings the delights of carrion eating, will give some idea of the verse current among these people.

- J. Maddar Pir pahāti cathiā Khilgat mātthā tēkdī.
- 2. Sundī Māi akkar bhannē Culhēdē wicc lētdi.
- 3. Giclī Māi jhand khalārē Dandā wallo wekhdī.
- 1. Lo! St.<sup>1</sup> Thigh has risen on high<sup>2</sup>

The people bow their heads.

- 2. Mother Cutlet<sup>8</sup> twists and turns, I' the fireplace as she lies.
- 3. Mother kneejoint's grizzling<sup>4</sup> now,

And looking towards the teeth.

1 Observe the canonisation in the first couplet and the dignity accorded in the second and third.

<sup>8</sup> i.e., has been elevated to the cooking pot.

<sup>8</sup> Akkar bhannā means to stretch as in yawning, hence to walk stiffly and proudly. Here it refers to twisting under the action of the fire. For sundī and giclī see vocabulary.

<sup>4</sup> Jhaud khalārņā, used of hair standing on end, here of splitting up and separaion of meat.



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- 4. Illä jhurmat pä liä Kä bahn banere
- 5. Jat jo puchdā Cūhriē Ghar kī hāi tērē.
- 6. Caudhri nikkē di gand bai Waddē dē phērē.
- Mat bharās chaddiš Cūhrī phěrē cauphērē.
- 8. Bhanni hõi saindki Cühri bhānyi**š**<sup>6</sup> phērē.
- 9. Pāți bõi taiŋgņi Walpaiņ cauphērē.
- Khālō mēriō kurmō<sup>7</sup> Köhli dē bērē.
- 11. Chailī de wicc sukdē, Khurdumbe<sup>8</sup> bērē.

4. Kites have formed a circle round,

Crows sit upon the roof.

- 5. Asks the farmer 'Cuhri, say what is there in thy house ?'
- 6. "The younger son's engagement, Sir,<sup>1</sup>

The marriage of the elder."

7. The pot sends forth a savoury steam,

The Cühri bustles round.

- 8. Broken is her vessel now She hands round<sup>8</sup> marriage food.
- 9. Torn also is the Cühri's skirt, Round and round she goes.
- 10. "Eat away my<sup>8</sup> hearties all Fragments from the breast."
- 11. In the basket, see, are drying Fat<sup>4</sup> delicious morsels."

Another pair of couplets relate a practical joke played by a Cührä.

| The bundle bound I tight and       |
|------------------------------------|
| fast (i.e., bundle of carrion).    |
| On top a bunch of rice stalks      |
| placed (to hide the carrion).      |
| By a farmer's hand I sent it home. |
| Hot and ready for soup.            |
|                                    |

"Here we have an Oriental version of "beautiful soup, so rich and green, waiting in a hot tureen." The farmer must have been a Hindu to account for the Cühra's glee at getting him to carry the carrion.

1 The Cühri (female of Cühra) displays a facility in saying the thing which is not.

<sup>3</sup> Bhanyiž, food given on the occasion of a marriage; the host gives it expecting to receive as much or more when he in turn is guest at a marriage feast. The delicate humour of comparing the joys of eating carrien to the rejoicings at a wedding will be appreciated.

<sup>8</sup> The fathers of the girl and boy to be married are 'Kurm' to each other. Here 'Kurm' (pl.) includes all the guests who have come with the 'Kurm.'

• A fat-tailed sheep is called 'dumba;' 'Khurdumbā' means 'full of fat,' rich like the tail of a 'dumba.'

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The following refers again to a carrion feast-Lāl lāl kandhī lāvā. The red is thrown to the wall

|                           | (red = the blood of the dead<br>animal).                                                                              |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Cițțe dā dēgā cārhīdā.    | The white is placed in the pot (white=the flesh).                                                                     |
| Ghar sādē thāna latthā.   | In our house there's a thana to-day<br>(referring to the congregation<br>of kites and crows watching<br>the carrion). |
| Wagyārā nahī chuțkāri dā. | There's no time even for labour that's forced.                                                                        |

There's a fifth line to this rhyme, but it has an obscene meaning.

The following vocabulary will be of some interest. The connection between the Cührā words and those of Qāsāis, Gamblers, and Säsis is worth noting.

### VOCABULARY.

#### STEALING.

chikāra, clod of earth. cāmnā, watch (used also by gamblers in general). chāpelnā, hide. churm, thief. gul launā, break through a house (san mārnā). gaimi. theft (cf. Qasāi argot gaimbī, theft, gaimbā, thief). kala, thief. kuddh, house. kainkar karna, strike with a clod of earth. kārkī, stick. lālli launā, steal (? cf. Säsi lālli, night, Arabic lāil). litārā, confidant. nĕolā, throwing earth to warn thief. něodi, theft.

paintri, shoes (left outside), cf. Säsi pauni.

thipnā, hide oneself.

tombū, weapon for breaking into a house.

#### Poisoning.

chaggi, a short stick with poisoning iron point affixed.

dhārkī, knife.

gand dena, kill.

goli, poison ball.

lānjī, a small chaggi (see above) which may be concealed in the hand.

rukhm, professional poisoner.

tiārī, poison.

thimā, poison.

### Human Beings.

bhātū, Sāsī cf. Sāsī bhattū.

ghirbalā, Musalmān.

kajjā, Jāt used also for Europeans and others (a word used by Säsis).

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kūtrā, boy (kūtrī, girl). rārkā, Hindā. tōmā, feminine of Ghirbalā. rūŋgā, rčēņā and rā, all Cūhrā.

### Animals.

ardlī, buffalo. bad, pig (used also by other Panjābis). cailī, little goat, kid. katīsī, cow. khanjalā, buffalo. kurmā, horse. kortā, khutringā, donkey. rēwal, dog.

### Food eating, etc.

*dhimā*, gur (S**š**si dhālā). guls, lassī. hundak, food. kūndņā, eat. mitkā, gur. nibal, ghī. nirkā, water. pakhsat, food, roţī. tilmņā, eat.

### Carrion, etc.

anjāla, heart. āndrā, entrails. batlī, fat remains. bukkā, part of the side. caura, thigh. cūl, lower half upper fore leg. dīthā, carrion. ghārā, part of entrails. ghanārī, upper part of side. giclī, flesh round kneejoint. jannū, upper half lower hind leg. jagar, carrion.

kaund, back of neck. kāņā, upper half, upper hind leg. kangī, part of lumbar vertebrae. khānjarā, carrion. khurarā, flesh on front part of lower half of leg. kohli, breast. līprā skin, cloth (in Qasāi's argot lipri = skin). lukrā, the part along the spine. maddar, thigh. mord, pieces of breast. minj, fat. miny, brain. murkan, part of shoulder. nĕōrī, fat. patri, lumber vertebrae. pōtā, round about anus. phar, shoulder. pattha, small of back. rukrā, part of side. sundi, an oblong narrow slice of meat. surkayg, lower half of lower leg. tikiyā, upper half, upper fore leg. totiā, upper half, lower fore leg. gölü, lower half, upper hind leg. tari, soup (connected with Urdū tar, wet). lās, soup. General.

almnī = kind of cow = sickness.
ābrņa, come, arrive (cf. Sắsī asrņā, Qasāi aparņā, Panj. apaŗņā.
burkņā, huqqa (used also by Sắsī).
beī kūl, keep quiet ('shut up,' used also by Sắsīs. See kūlņa).
bagēlā, money, rupee (cf. Sắsī bagēlī = eight anna bit).
bhīmtā, rupee (used by gamblers in general). T. G. Bailey-The Secret Words of the Cuhras.

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dhāndā, evil, worthless, bad.

ghasāi, lucifer match.

harjīyā, paisa, pice.

kathāņā, say. It is notewortby that the Panjābī words gal, katth, bāt (all meaning 'word' 'matter') have a verb formed from each of them. But while bataņā is used in Panjabī proper, kathāņā is used among by Cūhŗās, and galāņā is found among hill people in the direction of Camba.

kūlņā, do (used also by Sāsis). kērmņā, kill.

kaurūā, huqqa. kōkā, intrigue. ōthņā, beat, kill (Sắsi lõhņā, Kashmīri lāyun, cf. Urdū laganā, Panjābi lauņā).
lugņā, die (used by Sắsis).
nēparnā, seize (Panj. naparnā,

*iēparnā*, seize (Panj. naparna, napņā).

nükarņā accuse.

nükar, accusation.

pōlņā, come, go.

palwā, side (cf. Urdū pahlū).

pachikkā, bad, ugly.

sairnā, give.

sōhwā, fine, fat.

tomā, fine fat.

thēlā, ornament worn round neck.

tēlnā, give.

*tēlnī*, turban.



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### Three Documents relating to the History of Ladakh : Tibetan Text, Translation and Notes.—By the late DR. KARL MARX, Moravian Missionary at Leh, Ladak.

### [Read 4th December, 1901.]

Introductory remark by the Rev. Professor Gustaf Dalman, D.D., Ph.D., Leipzig, Germany.

Under the above title, in Vol. LX, of this Journal, pp. 97-135, and Vol. LXIII, pp. 94-107, translations and partly texts have been published from three manuscripts, once in the hands of the late Dr. Karl Marx. But the main part of the third document (called C-MS.) was still wanting. Now I am so happy to be able to put even this end of the history of Ladakh before the readers of this Journal. *Mrs. Theodora A. Francke*, of Leh, sister-in-law of Dr. Karl Marx, has completed the work by giving the translation of C-MS. from the point, where the history of Ladakh was left in the last publication. The whole of C-MS. is preceding this translation.\*

### English translation.—By MRS. THEODOBA A. FRANCKE.

Then the Wazir on his way back left the Ladakhi boundaries. During winter the Ladakhi king and his ministers made the following bad plan: "We shall not keep to our former promise, according to which we are to send taxes, but we shall begin war (send soldiers)!"

• In Proceedings of the Asiatic Society of Bengal, No. II, February 1902, p. 30, my name is mentioned in connection with the publication of the late Dr. Marx's three Documents relating to the History of Ladakh! This is a greater honor than I deserve. Our thanks for this publication are entirely due to Dr. Marx. Even as regards the third MS. (C-MS.) published in this number of the journal, the preparation of the Tibetan text is his own. The language of C-MS. is not exactly that described in my Ladakhi grammar, ante, Vol. LXX, part I, Extra Vol. 1901. The language of my grammar is that of daily life whilst that of C-MS. is the style of modern Ladakhi letter-writing, which leans more or less towards the classical language. Because a summary of the first part of C-MS. has already been given in Vol. LXIII, mostly on pages 106 and 107, the accompanying translation gives only the second part of C.-MS.

A. H. Francke.

Next year the Wazir quite suddenly, coming through Balldar arrived in Zangskar. Then he went through Kharnag and Shang with his soldiers and arrived at Leh before anybody knew of it.

The (old) king's son, the king *Chogsprul*, went through *Drangtse* and *Wamle* to *Spiti*; one or two months later *Chogsprul* died there.

Chogsprul's first wife's son was Jigsmed-choskyi-senge-migyurkunganambar-gyalwai-Lha.

The second wife's son, who is now living at Mashro, was Stan-shrungyurgyal.

Then the Wazir sent the (old) king Dondrub-Namgyal out of the castle, took all the treasures and riches and ordered the Leh minister Ngorub-Standzin to be proclaimed king. He also built the old kila (fort) at Skara near Leh and made the Tanadhar Magna and Janda-Sing captains. There he left altogether 250 men.

Ngorub-Standzin the Raja had to issue all orders and to send the taxes, amounting to 18,000 Rupees, without fail to the Maharaja. The Wazir himself and the other soldiers took the father-king, Bangkhapa and other noblemen, about 20-30, along with them to fight against Baltistan.

After having fought against the Baltis he (the Wazir) took all Baltistan and returned home. He sent the father-king back to Leh together with the Ladakhi noblemen.

The noble father-king was seized by small-pox in *Baltistan* and half-way back he died. His body was burned (given to the fire) at *Stock*.

Then the Raja Ngorub-Standzin reigned for three to four years. He sent the taxes to Jammu; but as he did not agree with Magna, the Tanadhar, the latter wrote, calumniating him, to the Wazir.

Therefore after four years the Wazir came again to Leh with his soldiers; he sent the *Raja* out of the castle and said, that the taxes had not been paid satisfactorily, and that he would punish him severely. "Now I am going to make war with *Tibet*, and you will have to go with me!" But when the *Raja* replied : "I would rather die than go!" The Wazir became very angry and imprisoned the *Raja* in the fort.

Noble young Sodnam, Sgolam Khan of Chushod, the minister of Basgo and many other Ladakhi noblemen he took along with him up to Ngari-sgorsum to the war.

He (the Wazir) made the *Tanadhar Miya* responsible for the Government (all the orders) of *Ladakh* and *Meta Basti Ram* was sent to fight against *Rutog* with five hundred soldiers. *Basti Ram* fought against *Rutog* and took it.

The Wazir went off with seven thousand men through Gar. He

fought and gradually got as far as *Purangs*. At a place called *Purangs*toyo the Wazir threw up trenches. At the same time the Tibetans also arrived at *Purangs*. In the castle of *Purangs* called *Dagla* there were about one hundred and fifty *Dogras*. Against those the Tibetans fought and killed several; some had to flee, and when the Tibetans attacked the castle, they took it.

Then the Wazir fought several times during a month and a half in a desultory way. One day, after that time, the Tibetan warriors, with their officers and all fighting men, made a desperate (not caring for death or life) attack at daybreak on the Wazir's trenches.

About noon one of the Tibetan bullets hit the Wazir's left shoulder and the Wazir fell down from his horse (on the ground). The Wazir still held a sword in his right hand. The Tibetans knowing that the Wazir had been hit (by a bullet), not minding their lives (speak of dying), attacked the Wazir's trenches. Then one of the Tibetan horsemen ran to the Wazir and meeting him, pointed his spear at (the borders of) the Wazir's heart, thrust the spear and the Wazir died.

When the sun was near setting, the Wazir's trench was destroyed. They (the Tibetans) killed as many *Dogras* as they could and took as many prisoners as possible. Many of the *Dogras* fled, firing backwards towards the Tibetans (hereto).

Then when the Tibetans had taken some men prisoners, they went back to their own camp. The next morning the Tibetans sent to *Lhasa* by a post all the details about the Wazir's death and how his head (and neck) had been cut off and so on.

On the following day, the Tibetans imprisoned all whom they had seized, among them the Ladakhi minister of Basgo, the young noble Sodnams, the noble Sgolamkhan of Chushod, besides 18 men and 30 Dogra officers and men. One hundred Tibetans accompanied them on their way towards Tibet.

The Tibetan army went as far as Gar with its General to try the prisoners. After one month they went back to Tibet. One officer with 300 soldiers remained at Gar for one year.

The Dogras who had fled arrived at Leh; so did those who were in **Rutog**, when they heard of the Wazir's death.

After one or two years the Ladakhis rebelled against the Dogras, summoning for war Lower and Upper Ladakh, Nubra, Baltistan and Khapulu. All these together sent about two thousand five hundred soldiers. They blockaded the kila and the Ohaon (fort) at Leh. In the kila (fort) there was the Tanadhar Magna, and about 50 Dogras, and in the Chaon fort there was a Komidhan and about 300 Dogra soldiers.

The Ladakhis made their trenches surrounding the two forts.

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For one month, they had only little fighting. Then there arrived a Tibetan, called *Pishi*, who was the head of the bowmen, together with about 100 men, to assist the *Ladakhis*. He took up his quarters in the *Leh*-castle.

After that, there arrived from Kashmir Dewan Harichand and the Wazir Ratun, together with about 7,000 men, marching towards Ladakh.

When people at Leh heard that the Dewan and the army had reached Khalatse, they all held a council and agreed on fleeing, because Dewan Harichand had so many soldiers, cannons, etc., with him.

The king and minister and the chief of the bowmen fled in the direction of the upper *Indus* valley, together with one hundred men. The *Ladakhi* soldiers fled to their own villages.

After two days the *Dewan* and the Wazir arrived at *Leh* with their men. They destroyed all the idols that were in the castle and monastery, not leaving even a single one.

The king, the minister and the men, accompanying them, had reached *Drangtse-lungs-Yogma*.

The day after this, more soldiers from Tibet arrived at Lungs-yogma, together with the minister Ragasha and Zurkhang, chief of the bowmen, accompanied by 3,000 men. When they all were assembled, they digged trenches.

The Dewan and the Wazir also took their men with them and going north, arrived at Dorkhug.

There the Tibetans heard a rumour (about their arrival). Then the chief of the bowmen, Zurkhang, together with one thousand soldiers, went and fought against the Dogras at Dorkhug.

During the first battle on the plateau of *Dorkhug* about 30 *Dogras* were killed, and *Zurkhang*, the head of the bowmen, returned to *Lungsyogma*; then the *Dewan* and the soldiers also went to Lungs-Yogma.

There were two hills on either side of the water. The Dewan and the Wazir divided their army and had their camps on these two hills. As the Tibetans had made their trenches on the plateau, there was no fighting until the Tibetans came out from behind their walls.

The Dewan and the Wazir with their men, working in turns, dammed up the water in the valley. As the Tibetans could not remain in the middle of the water, they were obliged to come out from their trenches and flee; so, they were conquered.

Then the *Dogras* seized all those Tibetans that were left and took them to *Leh*.

The Tibetan minister Ragasha, and some of the army who waited, were killed by the Dogras.

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The minister Zurkhang and the chief of the bowmen, called *Pishi*, both were also seized and taken to Leh.

The Tibetans and Dogras lived in peace (good order) without any war ever since; the annual trade going on as before according to the contract made (with the Dogras).

The Tibetan minister Zurkhang and Pishi, the head of the bowmen, then went back both being the leaders of the Tibetan army.

The Dewan Harichand re-installed all the Tibetan ministers and promised to establish again the Ladakhi king and queen with their court.

From Gangsri in Tibet there used to be given several men as servants to the Ladakhi king which he (the king) gave into the hands of the Dewan Harichand and the Wazir, and then went to his castle.

Not to a single nobleman the power, which he had possessed during the old king's reign, was left. But the *Dewan Harichand* and the Wazir said: "Only the minister *Rigdzin*, who was the servant of the late Wazir *Zorawar*, who died at *Purangs*, shall remain for ever, what he was before: the servant of the Government!" and transmitted to him all the Government work of *Ladakh*.

Then the Dewan and the Wazir both took the Ladakhi noblemen, among whom there were the Leh minister Ngorub Standzin, Ajo Gonpo, Lhadagtsering-stobgyes, along with them and returned to Jammu.

In Ladakh they left the minister Bigdzin and Magna the Tanadhar, together with the soldiers in the kila fort.

I think, it is all true, which has been said, from the first page to this.

। १९४८ मा में भें के मा में भी से मा में प्रायमिक कि कि में कि से कि

ଔ୶୶ୖ୶୕୶୷୷୳ୠୣୄୢୄ୷୷୳୷ୄ୷<sup>ୢ</sup>ୖୢ୕ ଽ୶୶ୄୖ୶ୢଽ୷ୣୄ୶୷ୢୖ୶ଽ୷ୖୄ୷ୠ୶୲ ୶ୄଽ୶୷ୄୢ୶୷ୖୠୄଽ୶ୡ୲ ୠୄଽୣୄୄୢ୶୷ୠୢ୶ଽୖୠ୷୲ୡ୶୶ଽ୶ୠୄୠ୶୲ୠୖ୷ୖୄ୷ୠ୶ୠୠ୲ୣ ୠୢୢ ୢ 3.7 सना पा नगरसा दिन्सा में ना पा नगप क्विंग र सना से नर म र सा नगर है. કે બઽ આવર કે ર સે ઽ ર માન ર મના ર ઽ ન સ ર ચરે . ર સ ન સ . ન સ સ . શે સ સ . શે સ . સ સ . શે સ . સ સ . <u>ৡ</u>৾য়৾৾য়৾৾৾য়৾য়ঀৣ৾৾৾৲ৢ৾ঀৣ৾৾৾৾৾৾ৼ৾৾৾য়৾য়৾য়৾য়৾ ୄଌ<sup>੶</sup>୪୶୲ୣ୶ୢଽ୶୶୳ୢ୶୵ୖୢଌ୷ୢୠ୷ୢୠ୷୶ୡ୲୷୷୷୷୷୶ ୵ଞ୍ଚ୶ୡୖଽ୶୵୵୵୲୶୵୲୷୰୷୰ୠ୶ଊ୶ୖୠ୶୷ଌ୶ୖ୶୵୳୵ୄୠୖ୵୴୲୷୵୷୴ୖୄୢୡ୕୶୷ ઽઅના અર્વે : દેવા રા રા તાપ કું શું તા સે દ રા લે . છે યેવા લક્ષ સુંદ શ રા શ 4 ៹๚ุณนนิ ๅ๛๚๚๚ . สุณณ ฏิณ ๚า ๛๚า ๛๚ ๛๚ ๛๚๛๛ ર્કે⊑ સેઽપઽ બેઽા ાદ્ય દેવાય ઽઅવાસે ૧૯૫ ડુવાય પરમવાસે વઢજા છુ. ૹૻૺ૯ નવે સેભ સેંગ મેં ને દેશ મુન નથુન વેદેન સરનસોનય નય ! શે૯ ન મેના มนาว พิราส์พารนา รัฐานาวทุจาลีจาฏินิงาส์พารนา รุมๆามิาสุมมา ๚างพี่ยามิรายางศึกเสียงเติยายางดูมา เมืองมีรับระเยยายายา ୶ୄୠୡ୲ୄୖୢୄୗ୰୵୶ଽ୳ୖ୳୵୴ୖଈ୕ୖ୵୕ୄ୕୵ଽ୶ୄୣ୕୶୶୵୵ଽ୶୲ୣଽୠ୵ୣ୶ୠୄୖ୳ୠ୵ୄୢୗୖୖୖୖୡ୲ୄୢୠୡ୲୶ୖ મુભ<sup>∙</sup>ર્યતે નગાવ નગોું ન વેવા પર નશ્ચ ભેઽા રેજેન છે ને ર તરા રવોં સાસ ૡૺૹઽૡઽઽૢૺઽ૾ૡૢૹૢૢૢૢૢૢૢૢૹૢૢૢૢૡૢૢૢૢૢૢૹૻૡૻૹ૱૽ૻઌૢૻઽૻૹૻૣઽૻઌૻૼઽૡૡ૾ૺૻૹૡૢૹૡૹ สู้ราศีลายุ พราพีราสายรายรายุรูป **ઌ૾ૢ૾ૼ**ઽૻૹૻૺૼૹૻૢૺૼઽૼૻૹૣૣૼૼ૽ૻૢૻ૾ૻૹૼૡૻૣ

*য়ঀઽ*ઽૻૡૹઙ૾ૢૺઽૡૼૡૼૡૡ૽ૼૡૼૹ૱૱ૡૹૡૢૻ૽ૼ૱ૡ૾૾ૹૡૡ นลิงาสา สิราราสา สังาริ สิลาลีรา สีราสา สายงารา ୶ୠୖୢ୶୳ୡ୲୶୶୲ୖୄୢୄୄୄୄୄୄୄୄୗ୵ୖ୶ୖୄୢଢ଼୕ୖ୵ୣଌ୴୲୳ଌୖ୕୶ୄୄଌ୴୲୳୵ଽ୕୶ୄୢୖୢୄୣୣଌୖ୵ୖଢ଼୕୲୳ଢ଼ୖୢ୷ୄୢୖଢ଼ୖୄ୶ୠୄ୵ଌ ଌ୕୵୶୳୶୵୲୲୲ୠୖ୷ୖୠୄୖ୶ୖୖ୵୵୵୵୵୳୵୲୳୴୶୭ୖ୶ୄୖୄ୴୵୳୶୶୷୷୶୶ୣଌ୶୶ଋୖ ฺชุล นาดุรูตฺาริ ลสารุธูณฑรัฐารศัสาวอูฐาพยาณสาสาวกุรูตฺาลสสาชิฺา <u>ઽ૾ૺૡૢઽૻૡ૿૽ૡૢૺ</u>ૻઌૣૼૼૼૼૼૼૼૼૻૻૢૻૡૻૡૻૺ૱ૡૻૡૼ૱ઽૻૻૹૡ૱ૻૹ૾૾૱ૡ૽ૻૹૻૹ૽૱ૼૢૻૡૢૼઽૢૻ૾ૡૢૼ૱ ૻૺૼૼૡૡૢૺૼ૾ૼૡૼૼૼૼૼૼૼૻૡૢૻ૱ઌ૾૾ૼૡૢૼૻ૱ૼ૱૱૱૱૱૱૱૱૱૱ <u> ને નર સ્વયર્થ કુલ સાથ રે શાસે ને ગયર તે ને ના શાસે તે કુલ દ્વારા સ</u>્વયાન તે નદ ઽૻૼૼૼૼૹૻૻૡૢૼ૾ૻૼૼૼૼૼૼૼૼૼૼૼૼૼૼૼૺૼૻઌૺૻૻૻૡૢૻ૱ૡૻૹૻ૾ૡૻૻૡૻૻૡૻ૽ૼૻ૾ઌ૽ૻૺૡૢૻૺ૾ૻૢઌ૽ૻ૱ૡૻ૾ૡૻ૾ૡૻ૾ૡૻૻૡૻૻૡૻ૽ૡૻ૽ૡૻ૽ૡૻૻૡૻ૽ૡૻૻૡૻ૽ૡૻ দ্র্রিম-দ্রুমন্ট্রা ୄୣୄ୷ୖୖୢୖୖ୕୶ୖ୶୳ୣ୵ୄୢୠ୷ୄୠ୶ୖୄୠଵ୕୶୶୶ୖ୰ୢୄୢୖ୰ୢୄଵ୕୶୶ୖ୷ नन' करा होता सामर' मी महिर सहेरी गा नडा या करा हे कर मुर में होट युग यरें भूते भेट मका मुल में सरे मासक कर महत मार्ट प में कि कर में भ कर में भ कर में मा कर म ଽ୳ଽ୵୲୵ୠଽ୶୶୲ୖ୶୕ଽୄ୷ଽୄୖୄୢୠ୲୶ୖୖୄ୶ଽ୵୷ଡ଼୲୳୲ୡୄୄ୲ଵୖୄ୕ୄ୕୵ୖଽଡ଼୕୶୲ୖଽ୲୷ୡୖୄ୲ ณล मुक्ट न श हे मुहिमा मी रेट रा मट से रट नगत में ना मह सा मिट महिस <u>વભા ભેદા</u> મિંદ માં આ દાય છે. મું આ વા તે આ દાય તે આ આ દાય તે આ દા આ દાય તે આ આ દા આ દાય તે આ દાય તે આ દાય તે આ આ દે

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พระพาครระกระกุลๆ มีรระกระเริ่า พิศาษัรยุ 121 มีรายิมาณ ભઽ૱ઌૹ૾ૻઌ૽૽ૢૻઽૼૹઌૻૻૹ૽ૻૻૡૼૹૹૻૹ૾ૺૹૻઌૹ૾૾ૹૻૻૻ૽ૼ૾૾ૡૻ૽ૼૡૻૼૡૻૡૻૼૼૼૼૼૼૻ૾ઌૻૻઽૼૹ૾૾ૺ૾ૻૹ૾૾૾ૺ૾૾૾૾ૡૻ૽૱ૻ ૹ૾ૢૺૡૻઽૢૢ૾ઌૹૢ૽ૺઌૹૺૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૡૻૹ૾૾૱ૡૡ૱ૹ૾૾ૹૻઌૼૡૢૻૺૼૼૼૼૼૼૼૡૢૻૹ૾૾૱ૡ૱ૡૻૢ૾૱ઌૻૢૡૻ ฐนามินาฐนานาลิณารูาลลินพรา สินาทนานสานการุามทายนา વઽવઃવૃક્ષઃદેરઃભ્દુષ& Iદેઃવૃક્ષઃક્રુભઃદેઃભઃકુઃશ્વરશ્વર્શ્વરુદાયરઃક્ષેદઃવૃક્ષઃભ્વ ลราคาสตั้ เวลาสา พยาสูการีาทราศลีาลาญ สิราคาสาญสาคาสินสา ઌૢૻ૽૱૾ઌ૾૾ૢૢૡૢૡૢૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡૡ ଌୖୖୖୖ୶୵୳୳୳୶୶୶ୠୄୠ୶ୖ୳୷୵୵ୢୠ୩ୄୠ୶ୖ୶୵ୣ୵୲ୖୄ୶୵ୄ୷ୄୣ୷୲୷୳ୡୢୖୣ୷ ૡૡૢૡૻૡૢૼૡૢૼૹ૾ૻ૾૽ૼ૱ૡૡૡૡૡૻૻૻૼૡૢૹૻૡૹૡૻૹ૽ૻ૱૱ૡૡૹ ૡ૾ૢૺૻ૾ૻૡૻૻૼૼૼૼૼૼૼૼૻૻૢ૽ૼૻ૾ૻ૾ૺૻ૾ૻૢ૽૾૾ૻ૾૾ૻ૾૽ૻૺ૾ૼૡૹૻૻઌૣૺ૽૽૽૾ૺૼૻ૾ૼૻ૾ૡૻૻ૾ૼૼૼૼૼૼૡૻૻૹૼૹૹૻૻૡૼૹૻૡ૾ૢ૾ૺૼૻ૽૽ૡ૽ૼૼૼૡૼ ୶୶୲ ୖୄଌ୕୶୕୵୶୶୴ୖ୲ଽ୕୵ୄୢୄଈୖୄୢୖ୶ୖଌୢ୶ୖଽ୶୴୶୴୲୶୶୶୶୶୶୶୶୷୶୲୷୶୶ <sup>ઽૹઌ</sup>ૻઽઽૻૡ૽ૢૼ૽9ૢૼૹૡૹૡૡૢૢૡૹૻૻૻૻૻૻૡ૽૿ૢ૽ૡૻૺઽૡૻ૽૽૱ૻઌૢૼૼૼૼૼૼૼૹ૱ૡૡૻૻૡૼૡૻૢઽૻ वश्वा=८२४ नगरामा मेटा देवर्श्व स्वापर क्वा नटा कुन वर्शना से नटा नग्र्या वेद्र हे जिन्हा सुरा गुम् म के राजन के मानु नक्षेत्र । निम

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ૻ૽ૼૼૼઽ૾ૼૹૣૹૻૡૢ૾ૢૼઌૻૻઌૻૼ૱ૹૺ૱ૼૼૼૼૡૻૹ૾ૻૡૻ૽ૡૻ૾૾૾ૡૻ૾૾૾ૡૻ૾૾૾ૡૻ૾૾૾ૡૻ૾૾૾ૡૻ૾૾ૡૻ૾ૡૻ૾ૡ૾૾ૡૻ૽ૡૻ૽ૡ૽ૼૡૡૡ૽ૢ૽ૼ૾ૼ ૹૼૻ૾ૼ૾૾૽ઌ૽૽૾૾૾ૹૣૹ૾ૻૡ૽૿ૡૡ૾૿ૡૢૻૹૻૹૺૼૢૻૻૹૻ૾ૼૹૼૹૻ૽૽૽ૢ૿ૹ૽૾૽ૢૢૼૼ૾ૺૹ૽૿ૡઌ૿ૢઽૻઌ૿ૢૢૢૢૢૢૢૢૢૡૻૻ૾ૡ૾૾૱૿ૡ૾૾૱ૻૻૡૻૻૼૻ ୴ୄୣୄଔୄୠ୶୶୴୶୲ୄ୲ୖୖ୲ୖଽ୶୶ୄୄୖ୷ୖୖୢଈ୵ୄୄୖୄୠ୶ୄୢୠ୶ୖୖ୷ୖୖଽ୶ୄୣ୷୷ୢ୶୶ୄୢୠ୶୶୶୲ क्रायनः भ्रेमिनिरमहिन्द्र दिन्द्र भिन्द्र किरानिर हो। कुमायेन क्रेमिक्र किरानिर हो। ५टेर्भग्मूनग्वश्रुत्दित्मुभयोग्नुसात्रसामित्यन्द्रन्वस् । सेटायार हू ५टेर्स ײַזָאַאַאַראַדאָר באָראָדיר אַראָיאַאיין איזאָאיין איזאָאיין איזאָאיין איזאָאיין איזאָאיין איזאָאיין איזאָאיין א ୶୶୶ୖୄଈୖୢଌୠ୵୵ଽୄୠ୶୕୶ୢୠ୵୵୵୶ଌ୶ୄୠ୲୶ଢ଼୶ୄ୲୵ୄୢଢ଼୵ୖ୵୕୶ୄୣ୴୶୵୶ୢୡ୶ ૡદેં મુભય્યે નુસારે કું ગુમારે આ જે આ ગુમાર જે મુખ્ય તે બુરાય તે બુરાય તે છે. ૡૻૼૡૻૢૼઽૻૹૣਗ਼૱૽ૼૼૼૼૼ૱ૡૄૢૼઽૻૡ૱ૡૡ૱૱ૡ૱૱૱૱૱૱૱૱૱૱૱૱૱૱૱૱૱૱૱ न्समासे क्रसा न्द्रम् मुमार्य न्द्रमा माम का साम के साम भुश्च गढार्डमाह्ने न खभा सभा हे द्वा भारतमा हिराहे। ते वहा सभा हे दार ૡૹઌૻૡૹૹૣૣૢૣૣૢૢૢઌ૾ઽૢ૾ૢૡૻૡૹૹૻૻૹૼૻઌૢૡૡૹૡૢ૿ૺૼૼૠૼૡૼૼૼૡૻૻૡૻૻૡૻૻૻૻૡૻૻૡૻૻૡૻ૾ૡૻ૾ૡૻ૾ૡૻ૾ૡૻૻૡૻૻૡૻ૽ૡૻ૾ૡૻ૾ૡૻ૾ૡૻ૾ૡૻ૾ૡૻ૾ૡૻ૾ૡૻ૾ૡૻ ઽઽ<sup>੶</sup>ભ<sup>.</sup>ઽ<sup></sup>གૹ<sup>.</sup>ଘ<sup>.</sup>ઽ<sup></sup>ག,ઽ<sup>૾</sup>གૹ<sup>.</sup>ફઅૹ<sup>.</sup>ૹૣૺૡ<sup>.</sup>ઽૢૻૡ૾ૢૺઽ<sup>੶</sup>ૡૻૼૼૼ<mark></mark>ૼ<mark>ૻ</mark><sup>ઌ</sup>ઌૼૼ สธิ์ๆ ณ สาวร์ เป็นเว้ เช่นี่สาว เ นลี่ชาย เ ช่ยเนร์ เ เช่น เ นิ่ม เ นิ่ม เ  $\widetilde{\Pi}$ દશ તથા સુર  $\widetilde{f}$ ના દુ સે ભાસભા | ] તે તથા ર દૂ ર દેશ નુન નથુ ત ર દિત મેં ୶ୡୢ୶୶୶ୖଵୄୖୖ୶୕୶ଽୖୄ୵ୢୢୠ୶ୖଽ୲ୢୖୠୡ୲ୖୄୖ୶ଽ୲ ୯ୢଽ୶ୡୢ୲୷୕ୡ୳୶ୢ୲୲ୄୖ୲୷୶ୄୖୄ୴୶ୖ 

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ଽ୶୶ୖ୶୵ଽଽ୶ଽୡ୲୷ୄଽୖୖ୴ଽ୶୶୶୲ ଽୄୢୢୢୢୢୢୖଽ୶୲୶ଽ୶୶୰୶ୢୖୡ୲ ୡ୳୳୶ ૡૡ૽ૢૻૼઽૼૡ૾ૻૼૼૼૼૹૻૹૺ૱ૻૡૻ૾ૡૻઌૡૡ૱૱ૡૡૡૡૡૡૡૡ MAN [Hay ] नः क्वें नगातः क्वेंतर् ८ माल्तरभाषा प्रमाशः गुरे दमा रेमा शास्त्र या য়য়য়ড়৾য়৾ড়ৣয়৾য়৾ঀ৾য়৾ঀৼ৾৾য়৾য়য়৾য়ঀ৾৾ঀ৾য়৾ঀ৾৾য়৾য়৾৾য়৾৾য়৾৾য়৾৾য় ॻॖऀॺॱॖॖॱॺॕॖॻॱय़ॱॸॖॺॻॱॸॸॖॱॱढ़ॺॱॖॖॱॺॕॻॱऄढ़ॱऄ॔ॎॱऻॎय़ॱॾॆॸॱॻॖऀॺॱॸॺॻॱऄॱ ୖୢଡ଼୕୳ୣୣୣୣୣୣଽ୶ୄୣ୵୶ୄୢଽ୶୵ୠଽୄୢୠୄ୵୷୵୶୶୲ୣଌ୶୶୵ଽୢଽୖ୶୶୲ୖଽ୶୷୶୶ୄୠ สาราสราไ ไร้าระรูลเลอี่และสร้านจิรามจิเลยามิเพยายาระรู नक्केनसा दुर्गर दुमाया मामराय केट यते दमना के खेर दर मार्क का नमु ४मग्पेन्यम्। नेप्यवेन्यसन्ममायन्द्रका भेष्यः केन्यम्। र्हेनः ଌୖ୕୶୲ୖ୶୕୵୶୶ଽୢଽ୶୲୷୲୶୲୶ଽ୷ୖ୶୕୵୲୴ୖୖୠୄୖ୲ୖୠ ૡૹ<sup>੶</sup>૾૾૱ઌૡ૾ૢૢૡૢૻ૱ૡૢ૾ૺૢૢૢૢૢૢૢૢૢૡૻઌૢ૾ૹ૽ૻઌ૽ૢૢ૽૾૾ઽૺૻૡઌૣૻ૽૽૱ઽૡૹઌૻઽૺૹૻૻૹૻૻૻૻૼૻૡૹ 

<u> २</u>ेक्स्र<sup>.</sup> केम्स् म्यामन् प्याप्ते वेरामी रेम्स् राष्ट्रमा विष्टारायसन् विय aziani नहाः भून: की. नहाः । इ.सट. के.स. मु. Q& F. मेक . र् ] ] रे. कु श. मेर् . यह . र के पा मा के र . के पा मा के र . के पा मा के पा मा के पा मा के पा मा क พตุฑฺ๛ฉีรามพาว เราวริเพิริทุฬามารูทุฬานาวริเวทุณริลา ริรัง ୳ୖ୶୕ଽ୶୶୶୲ ଌୖୖ୶୕ଡ଼୵୴ୖୖଽୖୢୖୄଈୖ୕୴୶୲୴୶୵୵୰୶ଌ୶୴ୖ୶ୖ୳ଌୖ୕ଽ୶ୄ୶୵୰୶୵୵୳ श्रेटया द्यें निर्मेण द्र दिन्म मिन के मे के सुम के के सुम के के मा के कि म ર્દ્ધભારુ નુશ્રાયથાં વેંગર સમાન વનું સેંગ નાજના રાજ્યના વસાવે ગુગાય ગું વહના ાબદ વેંગ્ય ગયના ગયેં ગુદ ગુમાં જે એંગ જ ગુમાં સુવા સુગમાં ગુમાં સંગ મારેંગ arvicaraal क्षर रु. त्वायामीरेमा दर्गा वक्षा येने ar क्षेत्र योगा केंद्र न रुगमा ૹૼ૯ૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૢૹૻ૾૾૾ૡૹૻ૾ૡૹૹૹૻૹ૾ૣૡૻઽૢૻૡૹ૽૾ૣૡૹ૱ૡૢૻૡ૾ૻૡૡ૾૾૾ૹૣૡ ૹૻૹૼૹૡૹઙૻૻૹૼૼૼૼૼૼૼૼૼૼૼૡૢૻૡૼઌૻઽૼૡૡ૽ૺઽૼૹૡૻૹ૾ૻૹૹઌ૽ૻૢઽૻૡૼૼઽૡૹૡૹ૾ૣૺ૱ૹ૱૱ૺ

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ૡુાયા ભુા યુરુષ છે. દુશ્વા મારે જેંદ સુવા છે દારા મારુ શાય છે. સુવા છે. ૡૣૻ૾ૻઽઽ૾૾ૺ૱ઌૢ૾ૺૼૼ૱ૡૡ૾ૺ૱ૻૡ૱૱ૡ૱ૡ૱૱ૡ૾ૡૡ૾૽ૡ૽ૻ૱૱૱૱૱ વરુસ મેદ યા છુ: તુરુ જાત કા કા જોવ વળ્યુ મે કવ દા સુવા વસ માગ ત્વ મે ૻઃ સુર્ગુ વનુ જેસ એંન ગયા ને ગાય જેસ ગય સવત નર્સે મે વેશ ખાટે ના સાથ તે. รุณฑาฐราชกาฐา สามาชิ้มามากรราวุจริการสารสายาง ନ୍ଦିଶ୍ୟୁନ୍ମ୍ମ୍ୟୁ ଅନ୍ମ୍ୟୁକ୍ ମୁହ୍ମିକ୍ ଅନ୍ମ୍ୟୁକ୍ ଅନ୍ମିକ୍ ଅନ୍ମ୍ୟୁକ୍ ଅନ୍ମ୍ ભર્મેન્દ્ર નુસમાસે સમસગ્દા ૧૯ માં છુલા દું ને દા દે નુસ છે. સમાછે સ য়ঢ়য়ৼ৽ঀৼ৽ঀ৾ঀ৾য়ৼ৽য়য়য়৾৾ৠৣয়ৢয়৻য়ৢৼ৾য়ৢয়ঀয়৾ৼ৾ঀয়য়য়য়৾য়৾য়ঀ৾৾৾য়ঢ়৾৾য়৾য়য়৾ঀ Inganangaragara સંસ્થાય માટે જુરુ પ્રદેશ સાથે છે. આ પ્રદેશ સાથે છે. આ પ્રદેશ સાથે છે. આ પ્રદેશ સાથે છે. આ પ્રદે নন্দ্রীনাধা ୶ୢଈୖ୶୶୲୲ୖୖ୲ଽୖୖୖୖ୶ୖ୲ଌ୶୲୶୲ଵୄୄୣ୶୲୷ୖ୶୵୳ୖୖୖୠ୵୳ୡ୲୷ୖୢୡ୕୶୷୷୲ୖୢୡ୕୶୷୷୲ୖୢୡ୶୷୷ୢୢୗ୲୶୵୷ અન્વન્નચ્લેન્ટ્રુન્નામાં માર્ગ્સ્ટ્રેસ્ટ્રન્ટ્ર માર્ગ્સ્ટ્રેસ્ટ્ર્સ્ટ્રન્ માર્ક્સ્ટ્રાયુદ્ધ સામા

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अन्त्यन्नेनरान्ही नेन्द्रम्बराख्नान्हर्म्साक्सा नेन्द्रमनाञ्चरान्हनाक्स. न्येंब हरामा ना ना के हेंद सुना नरेना नरुष हेंग मुना कु के द य ना Qबनःयरःय५८४, द्रिम्माब्रायः Qबनः रेश्रम् क्रिम् स्टियः ୢୣୄ୷ୖୢଈଽ୕୴ୖୄୠୡ୲ୄୖୄୄୗୄୡ୲ୖୡ୲ୖଽୡ୕ୖ୳ଽ୳ୖ୶ଢ଼ୗୄୡ୲୵ୠୡ୲ୄୠୄଵ 175 **ન્**શ્રमाद्वय्राध्नप्रदेश्या स्थित ঀঀঀ৻ড়য়৾৾ঀৢয়ঀ৾৾৾৾৾ঀঀঀ৾ঀৣ৾৽৾৾য়ৼ৾ঀ৾৾ৡয়৽ঢ়৾ৣয়৽৾য়৾য়৾ঀৢয়৾ঀয়য়৾৾৽ৼয়৾৾ঀ৾ รุญิณรูากุรูฑานราพายุฉานพ รุณฑาฐราสุฆาษิาณิฑาษิ วิรารศักมายู่ नस। वेर्नन्मनायमा ।रेनुसावेर्नन्मनायुसारेन्स्सासेट्रयसः ๚ลูลาซู้ามู้ณารู้าามู่กลง อัรายาการสังาราการรายสารราคา मृश्रेशगु८म्बहृत्वसञ्चेत्रनुमञ्चेनस। ।२ेवसर्वेनयन्तर्भेत्यमश्रेस 

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พิงส์ราวุๆ

नलमार्मे। ୖ୶୕ୄୣ<sup>ୠ</sup>ୄୖ୶୕୶ୡ୳ୖ୶ଽ୷ଽୖ୶୷ୖ୶ଽ୷ୠୖୄଽ

<u>ૼૢ૱ઙૼૼ૱</u>૽ૢ૾ૺૹૡૢ૱ૡૡઌૡઙૻૢૼ૱ૹૹ૱ઽૡૡઽ૾ૡૹૡ૾૾ૡ૾૾ૡૡ૱૱ૡૡ ૹૼઽૻૹૻૹ૾ૢ૾ૺઽ૽ઌ૽ૼૼૼૼૼૼૼૼૼૻૻઌૻૻૢ૽ૼૻૼૹૼૼૢૻઌૢ૿ૢૼૼૹૻ૱૱૾ૺ૾૽ૻ૽ૼૻ૽ૼ૱ૡૻ૽ૻૻ૽ૻ૱ૡ૽ૻૡૻ૽ૼૻ૽ઌ૽૿ૢૻ૽ૼ૱૱ૡ૽ૼૡૻૻૡ૽ૻૡ૽ૻૡ૽ૻૡૻૻૡ૽ૻૡ૽ૻૡૻ ભ<sup>્</sup>ષ્ટર્માનુદશ સુભ<sup>્</sup>ર્તુ શળી સુદ્વ ગાઉના મા અદ ૧૧વદ સેવ પર ૧**૭**શ વશ ૹ૾ૻૼૼૼૼૼૼૼૼૼૼૹૻૡૡૼૡૻૻ૾૾ૻૡૻૻૡૻૻ૱ૡૹ૾ૺૡૻઌ૽૿ૢૡૻૻૡૡૻૡૻૡૻૡૻૡૻૡૼૡૻૼૡૼૡૻ ระ รู จิสศลขึ้าน ลิร ลัร ญร ซึ่งดาล รัฐานรุ เล่ราหา พะ ส ૡૹૻૻૻઌઌૡૻૻૡૻૢૼૡૻઌૻઌૻૣૢૢૢૢૢૼૹ૾ૻૢ૽૾ૺૻૡૹૻૻ૽ૢૼૼૻૡૡૻૻૡૻૺ<sup>૾</sup>૽ૻ૾ઌ૿ૢૼૼૹૻઌ૽૿ૢૹૻઌૻઽૢ૿ઌૻૹૻૻઌ૽૿ૺ ลูรๆลินลิ์จนัรรังเขูงจรงจรังรา เพริมพัดนัรรา จลูง ઽ<sup>ઌ</sup>ૢૹૻૺ૾ઽ૾ઽૻૹૻૢૼૼૼૼૼૼૼૼૼૼૼૼૼૻ૾ઌૢૻૼૹૻૻઌ૱ૹૻૡ૽ૻઽૡૢૻ૱ૡૻૺૼૼૼૼૼૼૼૼૻ૾ૡૻૻૼૼૼૼૼૼૼૼૡ૾ૻૡ૽ૻૡ૽ૼ૱ૡૻૻૡ૾ૻૡૻ૽ૼૡૻૻૡ૽ૻૡ૽ૼ૱ૡૻૻૡૻૻ য়ঀ৾ঀয়য়ৼৼ৾৾৽৾ঀ৾৾৾ঢ়ৣ৾৾ঀৣ৾৾৾৾ঽৢ৾য়৾য়য়য়য়য় ભ<sup>.</sup>નગવ:દ્વેંગરેમાવદેંગર્ડા

# Triloknāth.—By J. PH. VOGEL, ESQ. [Read 8th January, 1903.]

In the course of a summer-tour in the Kängra District I had the opportunity of making some notes, which may help to elucidate the connection between the Bodhisattva Avalokiteçvara and the brahmanical god Çiva.

An endeavour has been made to explain the former as the Buddhist counterpart of the Hindū deity Brahmā, chiefly on account of iconographical observations.<sup>1</sup> This connection however seems à *priori* highly improbable, considering the place occupied by these deities in the Pantheon of both Religions. The Bodhisattva in its origin the vague creation of monastic contemplation—in order to obtain so prominent a place in the Mahāyāna system, must have assumed the shape and attributes of the much-honoured and beloved Çiva, not of Brahmā, himself merely the personification of an abstract conception, who by his passiveness never appealed to the popular imagination. The close relation between Avalokiteçvara and Çiva has lately been vindicated by M. A. Foucher.<sup>9</sup> The following facts connected with the name of Triloknāth will, I believe, corroborate the same view.

One of the most famous  $t\bar{t}rthas$  of the Western Himālayas is Triloknāth, situated on the left bank of the Candrabhāga river, some thirty-two miles below the junction of its constituents, Candra and Bhāga. Though geographically belonging to Patan, which is the name of the lower part of Lāhul, the place has been included in the territory of Cambā. Its inaccessibility, no doubt, enhances greatly the merit resulting from a pilgrimage. Moorcroft<sup>8</sup> when passing through Lāhul on his way to Bukhāra met "two half-starved Hindu fakirs: one of them had come from Chapra, the other from Ougein: both were going on a pilgrimage to Triloknāth."<sup>4</sup>

1 L. A. Waddell in J.R.A.S., 1894, p. 57 sqq.

<sup>2</sup> Etude sur l'iconographie Bouddhique de l'Inde Paris, 1900, p. 172 sq.

<sup>8</sup> Travels, I, p. 193 sq.

• Kängra Gazetteer, Part III, p. 18. It is therefore strange to find that only three pages further on in the same volume the word Triloknäth is said to indicate.

Since the construction of the Central Asian trade road the number of pilgrims must have considerably increased. When travelling in Kullā one often meets sādhus, who after visiting the hot springs of Manikarn in the Parbati valley, cross the Rotang-pass and wander down "the wild and willowed shore" of Bhaga and Candrabhaga in order to reach the celebrated *tirtha*. When I visited the place on the 17th August it happened that the annual melā was just going on. So I had a good opportunity of satisfying myself that the deity of this place is equally honoured by the Buddhists of Lahul, Ladakh and Basāhiras by the Hindus of Cambā, Kullu and other parts. The variety of type and dress displayed by the numerous pilgrims would be highly interesting to the ethnologist. Though their devoutness is of at somewhat peculiar sort, manifesting itself chiefly in dancing and drinking, the question rises: Who is the devatā, who attracts people so different in race and religion to his remote and inaccessible shrine?

It has already been stated by the Rev. Mr. Heyde, late of the Moravian Mission at Kyelang, that the Triloknāth of the Candrabhāga valley is no other than the Bodhisattva Avalokiteçvara.

An inspection of his image fully confirmed this statement. The position of the legs (mahārāja-līlā) at once suggests a Bodhisattva, though it is noticeable that not the right but the left leg is hanging down. The six arms have the following mudras and laksanas: R. upper abhaya, R. middle akşamālā, R. lower vara, L. upper triçūla, L. middle (resting in lap) sarpa, L. lower mangalakalaça. The number of arms, their position and attributes seem rather exceptional, if compared with the Nepalese miniatures, discussed so ably by M. Foucher. The absence of the padma especially would almost raise a doubt as to its identity with Avalokiteçvara. But from the same author it appears that the number of arms is anything but fixed and that six-armed images of Avalokita are not unknown.<sup>1</sup> Moreover, there is the varamudrā, a main characteristic of this Bodhisativa, whilst the snake also occurs among the attributes of one of M. Foucher's miniatures (Pl. IV, 6). To remove all doubt it will only be necessary to state that the image of Triloknath in its mukuta shows a cross-legged figure : the Dhyāni-buddha Amitābha. The image is of white marble, a material, which I did not find used anywhere else in the Kullu sub-division,

"the Hindu Trinity" and explained as "the three lords of the world." The Hindu Trinity occupies a larger place in the imagination of the West than in the religious belief of India. Sanskrit *Trilokanātha* of course can only mean "Lord of the three worlds."

<sup>1</sup> Foucher, l.c., p., 97 sqq. Cf. Waddell, l.c., pp. 58 and 79 No. 12.

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though miniature images of painted marble are occasionally met with in Lāhul.

It is a curious circumstance, that the abode of the Bodhisattva is a regular *cikhara* temple of moderate size, said to be founded by the Pāņdavas! This tradition it has in common with every ancient shrine in the District. It simply indicates the antiquity of the building and the fact that its origin is unknown. Of one shrine, which is supposed to be older than the others, not the foundation, but the restoration is attributed to the Dharmarāja and his brothers. It is that of yvālāmukhī.

As to the Triloknāth temple the sanctum is combined with a plain oblong structure, covered by a wooden sloping roof with gilt pinnacles. A similar combination is regularly found with Vişşu temples in the Kullū valley.

In that part of Lāhul which is known as Patan the transition between Lāmāism and Hindūism is gradual, but this is by no means the case on the Kullū side. Here the mid-Himālayan range marks a very distinct boundary between the two religions. Any one who has crossed the Rotang-pass must have been struck by the contrast in climate, scenery and population, between the Candra and the Upper Biās valley.

It has been asserted and seems generally accepted by the European inhabitants that Buddhism was once prevalent in Kullū. Captain Harcourt in his in many respects valuable book! on the sub-division, which for some years was committed to his charge, is of the same The arguments, on which his conviction is based, are the opinion. frequent occurrence of the Buddhistical wheel on temples besides the effigies of Buddhistical animals, birds and snakes, and the ceremony of "the swinging rope." As to the first I may remark that locally the ornament referred to is mostly explained as representing the sun and moon, and shows more resemblance to a conventional padma than anything else. But even if it were meant to be the cakra it should be borne in mind, that the wheel is by no means a purely Buddhistic emblem.<sup>8</sup> As to the curious ceremony of a man sliding down a rope stretched from the top of a precipice, it is practised at Nirmand on the Satlaj.<sup>3</sup> But this place though for political purposes included in Kullū does not belong to the valley geographically. It was witnessed, Captain Harcourt says, by one of Major Montgomerie's pandits in Potala fort outside

<sup>&</sup>lt;sup>1</sup> Kooloo, Lahoul and Spiti (London, 1871), p. 205 sq.

<sup>&</sup>lt;sup>9</sup> Grünwedel. Buddhistische Kunst in Indien (Berlin, 1900), p. 6.

<sup>&</sup>lt;sup>8</sup> Harcourt, l.c., p. 318 sqq.

Lhasa, but this alone is no reason for styling it Buddhistic. At the utmost it might be called lāmāistic, and in that case we ought probably to look upon it as a part of the aboriginal worship, certainly not as an ingredient of the "thin varnish of Mahāyāna Buddhism."<sup>1</sup> For in other non-Buddhist tracts of the Himālaya the ceremony of the swinging rope appears to exist. Moorcroft<sup>3</sup> found it practised at Srinagar, the capital of Garwāl.

The most plausible explanation I can offer is, that it is a survival of human sacrifices, the prevalence of which in former times in Kullü and Lāhul is indicated by popular tradition.<sup>8</sup> But in this peculiar case the victim instead of being actually killed, had to undergo a risk that endangered his life. An offering was thus made to the deity who might decline or accept the sacrifice according to her divine pleasure. In 1856 the latter happened, *i.e.*, the man was killed and since then the practice has been prohibited. I am given to understand, however, that the ceremony still takes place, but on such a small scale that the man's life is not imperilled. If my hypothesis be true, it offers a curious instance of the tenacity of religious customs, which are still preserved after having entirely lost their original significance.

I have digressed on this subject, because during a stay of nearly two months in Kullū, I did not meet with any real traces of Buddhism, such as topes, images, inscriptions or even popular traditions. There is one exception only, which is of special interest for my present subject, vis., an image of Avalokita, known as Triloknāth, at Kalāt on the Biās.

In three places in the Kullü valley there are hot springs: at Manikarn on the Pārbatī, a tributary of the Biās, at Basisht opposite Manālī and at Kalāt, halfway between this place and Katrain. In each of these spots the phenomenon has been connected with popular worship. Manikarn is the chief *tīrtha* of Kullū, now a centre of Vișnu bhakti, though originally as appears from the Māhātmya belonging to Çivaism. Basisht has received its name from the Rşi Vasiştha, the Saint being worshipped as the guru of Rāma, who has a stone *şikhara* in the same place. At Kalāt there is a plain village-temple, dedicated to Kapila Muni. When Vasiştha was carrying 'the precious water from Maņikarn to the place, which was destined to bear bis name, he passed Kapila, who ceasing his *tapas* for a moment snatched from him a few drops and thus gave its origin to the hot spring at Kalāt.

The image of Kapila Muni is made of astadhatu. This circumstance deserves notice, because nearly all metal images, which I found

1 Waddell : Lamaism, p. 80.

<sup>2</sup> Travels, I, p. 17.

<sup>8</sup> Harcourt, l.c., p. 825. Kängra Gazetteer, Part III, p. 17.

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in Kullū, belong to Viṣṇu-worship, and for this reason, are of a comparatively recent date, both having been introduced in the seventeenth century under patronage of the Kullū Rājās. The shrine of Kapila contained some more images of the same material: Rāmcandar, Sītā Caturbhuj, Rādhā and Hanūman.

But besides, there was a small image-slab, much effaced and apparently, of considerable age. It showed a six-armed figure, but its attributes were unrecognisable. Only the vara-mudrā of the lower right hand was plainly visible, while in one of the left hands there was something like a staff, which might have been either a trident or a snake. The *āsana* was exactly like that of the Avalokitas of Lähul. Moreover, there was a second figure in *dhyāna-mudrā* on the head. The *pūjāris* had never noticed the latter and when it was pointed out to them, they declared it to be Lakşmi! The image itself, however, they knew by the name of Triloknāth and admitted that it represented the same deity as that worshipped in Lāhul. It seems highly probable, that Avalokita was originally the main object of worship at Kalāt and was superseded by the Brahmanical Muni, who still grants him a subordinate place in his shrine. The material of the image in any case tends to show that it was not imported but belongs to the spot.

The same curious mixture of Hinduism and Lāmāism as is found at Triloknäth in the Candrabhäga valley, is met with in Rawälsar, the famous tirtha of Mandi, the hill-State stretching along the middle course of the Bias. Here in an absolutely Hindu country we find Padmasambhava,<sup>1</sup> the founder of Buddhism in Tibet, worshipped not only by Lāmās who have their own Gan-pa here, but equally by Brāhmans, who call him Rsi Lomaça and even possess a Mahāimya, in which the local legend is given in its Brähmanic version. But for my present subject it is of more interest, that in Mandi Town we meet again with the name Triloknath, but here to indicate-Civa. The preponderance of Civaism in Mandi is the more striking, when entering the State from the Kullū side, where Vişnuism, though by no means the popular worship-has been made the State-religion by its Rulers of the seventeenth century. In Mandi Çiva is worshipped under his well-known symbol, the linga, but besides the images of Civa Pañcavaktra or Pañcānana are remarkably numerous. It is worthy of notice, that the five faces of this deity are not placed in one row as is mostly the case with polycephalic statues but in such a way, that the fourth face is on the reverse side of the slab which is otherwise quite plain and the fifth on the top of the image-slab. Thus when seen in front only

1 Not Padma Pani as given in the Gazetteer, Part III, p. 18.

three faces are visible. I may also note that according to a local *purohita* the five faces of Mahādeva indicate the five *Dhyānas*.

The images of *Çiva Pañcavaktra* without exception are ten-armed in accordance with the number of faces. The attributes and *mudrās* are rather divergent and not always easy to identify. The following belong to three different images in Mandi Town :---

| , Ι | R. upper      | Khadga         | L. upper     | triçūla               |
|-----|---------------|----------------|--------------|-----------------------|
|     | " 2d          | sarpa          | " 2o         | gadā                  |
|     | " 8d          | a <b>yukça</b> | " 8d         | ghanțā or kalāça      |
|     | " 4тн         | vara           | " 4тн        | broken                |
|     | ,, 5тн        | broken         | " 5тн        | Çakti (viz., Pārvatī) |
| II  | R upper       | `triçūla       | L. upper     | cakra                 |
|     | " 2d          | empty          | " <b>2</b> D | <b>d</b> amaru        |
|     | " 3d          | <b>çankha</b>  | " <b>3</b> d | vādana                |
|     | " 4тн         | akşamālā       | ,, 4тн       | kalāça (and Çakti)    |
|     | " 5тн         | P              | " 5тн        | sarpa                 |
| III | R upper       | tricūla        | L upper      | <b>d</b> amaru        |
|     | " 2d          | abhaya         | " 2d         | cakra                 |
|     | <b>,, 8</b> d | dīpa (?)       | " <b>8</b> d | sarpa                 |
|     | " 4тн         | akşamālā       | " 4тн        | "                     |
|     | " 5тн         | vādana         | " 5тн        | kalāça (and Çakti).   |

As a rule the *devatā* is represented seated on its *vāhana* the bull Nandi, while Pārvati's *vāhana* the lion is standing behind it, the head turned in the opposite direction.

It will not escape notice that the attributes of *Çiva Pañcavaktra* are partly the same as those of Triloknāth-Avalokiteçvara. Snake trident and vessel are common to all images. Also the rosary which may be conjectured to have occupied the fifth right hand of the first described image. Even the vara and abhayamudrās occur though not regularly. The occurrence of the rosary and vessel as attributes of *Çiva* considerably weakens one of the chief arguments in favour of the connection between Brahmā and Avalokita, viz., the similarity of their attributes. I have only to add that in one of the oldest temples of Mandi situated on the right bank of the Biās *Çiva Pañcavaktra* is worshipped under no other name than Triloknāth.

Now travelling down the Biās-valley into Kāngra proper, again the name Triloknāth is met to designate a village (also called Trilokpūr) and  $t\bar{t}rtha$ , about two miles east from Kotla. This shrine "is not a building, but a naturally formed cave. Water charged with mineral matter, dropping from the roof, has at the far end of the cave produced two large stalactites and stalagmites, which meeting midway now form two pillars. The roof and floor of the rest of the building are covered with masses of stalactite and stalagmite."<sup>1</sup> Besides these numberless svayambhū lingas there is in the centre of the cave, as chief object of worship, a linga of white marble, which is pañcavaklya and thus forms a link between the linga and the image just described.

The substance of the present paper may be briefly stated thus: that in the Candrabhāga valley and also on the southern side of the mid-Himālayan range on the upper Biās Triloknāth is the name by which the Bodhisattva Avalokiteçvara is indicated, while along the lower course of the Biās river the same name is assigned to Çiva, represented either as a *linga* or as a five-faced statue, which in its attributes shows a marked resemblance to some of Avalokita's images.

<sup>1</sup> C. J. Rodgers. Revised List of Objects of Archeological interest in the Panjab (Lahore, 1891), p. 43.

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# Notes on two Coins of the Sunga Dynasty.-By Col. C. E. SHEPHERD.

#### [ Read 6th November, 1901. ]

In Vol. XLIX, Part I of 1880 of the Journal of the Asiatic Society of Bengal are two papers on coins of the Sunga dynasty, one by Mr. A. C. Carlleyle describing some coins of the dynasty collected by H. Rivett-Carnac, Esq., C.I.E., F.S.A., etc., and a second paper by Mr. Rivett-Carnac himself giving a further description of such coins. In neither paper, however, is mention made of Dhruva Mitra or Rudra Gupta made as belonging to this dynasty. I send two casts showing one coin of each of these Kings.

The three symbols above the name are identical with those on the coins of Agni, Bhumi and Phaguni Mitra in the papers above alluded to so that Dhruva Mitra and Rudra Gupta undoubtedly belonged to the same dynasty; the style of the coins is similar, the name and symbols of the obverse having evidently been struck with a square die and the reverse has the Buddhist much the same as that shewn in some of the coins in Plates VII and VIII of the papers above alluded to. These two coins were obtained at a village near Rāmanagar from the ruined site of Ahichhatra. A more detailed description is as follows :--

#### DHRUVA MITRA.

Coin of medium size, and of mixed metal having a brassy lustre with however two spots of coppery colour showing on the reverse side, as



if the metals were not thoroughly mixed. The coin has two splits, one very slight, made most likely during process of manufacture.

Obverse.--Square depression with the three symbols in line above, and name below.

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*Reverse.*—Buddhist railing with traces of uprights at each end and an upright in the centre but what is at the top of this is undecipherable.

# RUDRA GUPTA.

Coin of same medium size, also of mixed metal, but the mixture not uniform, the copper more largely predominating in one half the coin.



Obverse.--Square depression with the three symbols in line above and name below.

Reverse.—Buddhist railing, on the left corner an upright ending in a trident, in the centre an upright rather higher than the left-haud one and having a ... near the top, on the right traces of an upright but too deleted to decipher.

Both these coins I believe to be rare.



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A short Notice of a Persian MS. on Gaur.—By H. BEVERIDGE, ESQ.

### [Read 6th November, 1901.]

The attention of students of the history of Bengal is hereby drawn to a thin folio in the India Office Library, p. 1541, No. 2841 of Dr. Ethé's catalogue. It is an account of the buildings and inscriptions at Rajmahal Gaur and Panduah, and it also has a chapter containing a list of the rulers of Bengal from the days of Laksmana Sena. It is the result of local investigations made by Shyām Prasād in November and December, 1810, when he visited Gaur, etc., in attendance on Major Francklin. The report was drawn up for Major Francklin and appears to be the source of the information given in Francklin's Journal of which good use has been made by Mrs. Ravenshaw and Mr. Grote in Most, if not all, the inscriptions quoted in the Ravenshaw's Gaur. notes to that work are to be found in Shyām Prasād's report. The latter does not contain much that is new about Gaur or Panduah, but as it is a very small work-only thirty-two pages of Persian, and is our earliest topography of Gaur, I beg to suggest that it should be published in our Society's Journal. For this purpose it would be advisable to borrow the original from the India Office. Shyām Prasād tells one story about Firūz Shāh's Minār which is new. He says that the builder was one Pirir and that when Firuz Shah visited the Minar after its completion Pirir said to him that he could have made a still finer column. This enraged the King, who said: "Why didn't you then?" and had him toppled down from the summit.

In Ravenshaw's Gaur, p. 53, the inscription on the tomb of a child is given. This is also given by <u>Shyām</u> Prasād, and it is interesting to observe that the child must have been the son of the Tāhir Muḥammad who wrote the Rauzat-Tāhirīn. Tāhir Muḥammad's work shows unusual knowledge of Bengal, and this inscription helps us to understand how he got his information. In the list of the Kings of Bengal we find <u>Shyām</u> Prasād giving Qadir Sen as the original name of Sulṭān Jalālud-din whom he calls the son of Kāshī, or (Kāsī) Rai. It may be remembered that Buchanan, who got his information from Francklin, also gives Qadir Sen as Jalāl-ud-din's name.

The really new part of <u>Shyām</u> Prasād's report seems to be his first chapter which gives an account of Rājmahal. So far as I know the particulars he gives have not been recorded elsewhere, though there is an account of Rājmahal in Buchanan. 11

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# The Khojas of Eastern Turkistan.—By H. BEVERIDGE, ESQ., I.C.S., retired.

#### [Read August, 1901.]

Mr. Ney Elias remarks in the preface to his account of the Khojas, published in the supplement to our Society's Journal for 1897, that Mr. R. B. Shaw appears to have used another book besides Muhammad Sadiq's, but that he has been unable to find it. Had that excellent man been alive, he would have been pleased to learn that the missing manuscript is almost certainly in the Oxford Indian Institute. It appears to be one of two Persian MSS. which were presented to the Institute in December 1880 by General Younghusband who is a connexion of Mr. Shaw. Both of these MSS. give the genealogy of the Khojas and describe the coming of Kamālu-d-din Majnūn from Medina to Farghana, &c., but the one which best corresponds to the "other book" of Mr. Shaw is a well-written octavo bearing the Institute-library number 294. It is called the Anisu-t-talibin (Friend of inquirers), and appears to have been written by Shah(?) Mahmud son of Mirzā Fāzil Jarās (جواس) about 1049 A.H. It is divided into two parts, one giving the history of Ali and sundry Imams and the other describing the Khojas. It describes Makhdum-i-A'azim and gives his proper name as Maulānā Ahmad Khwājagī Kāsānī. Compare Mr. Elias' note, p. 5 of the Introduction where he says that the name Ahmad Khwāja has evidently been taken by Mr. Shaw from the "other book," for it is not mentioned by M. Sādiq.

The other MS. is called Jāmā-al-Maqāmāt (collection of assemblies) and bears the Institute-library number 309. The author appears to be Abū-al-baqā, son of Khwāja Babāu-d-dīn, and grandson of Makhdum A'azim, and also nephew of Princess Mahim. He appears to have resided in Yārkand and to have been in the service of Hazrat Khwāja Jahān. He records the death of a Yūlbārs Khan and appears to have composed his book in the beginning of 1026 A.H., though the copy was made in 1030 or 1040. The book is an elaborate biography of Makhdum A'azim and is divided into three chapters. The first gives an account of the material and spiritual descent of the Makhdum; the second records his sayings, and the third, which is much the longest. gives an immense number of his miracles. I could not find that any of them were interesting except one relating to Babar, and which gives the circumstances under which he composed a quatrain quoted by Abul Fazl, and another, the last in the book, which records the reformation of an opium-eater of thirty years' standing. The author says in his

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preface that anecdotes and conversations of the Makhdum had been recorded by his disciples Hāfiz Ibrāhīm and Mullī Qāsim Kātib, but that they had not been gathered into one place. Hence the title of his work. Apparently the author was ordered to compose his work by Maulanā Dost, a disciple of the Makhdum. The MS. is a small, thick octavo well-written and well preserved. Both MSS. describe Kamālud-din Majnūn's marriage with the daughter of Sultan Iliq Mazi of Far ghana, the birth of Burhāual-maujidīn, and his succeeding his father. in-law on the throne. Their accounts correspond with the beginning of Mr. Shaw's epitome p. 31, l.c., and they are probably the sources of M. Şādiq's book which was written in 1768. The Anisu-t-tālibin calls Sultan Iliq Mazi the graudson of Sultan Satuq Bughra Khan which is also Mr. Shaw's statement. It may interest students of Central Asian history to know that Mr. Shaw's English papers, and also his MS. of Muhammad Sadiq Kāshghari (in Turki) are in the Oriental department of the British Museum. In the same press in the Institute-library which contains the two MSS. above described there is a shelf full of Turki MSS. One of them is a history and another is a biography of Hazrat Afaq.<sup>1</sup> These MSS. also were presented by General Younghusband. The Shaw papers in the British Museum were presented by Mrs. Younghusband.

<sup>1</sup> See appendix to Shaw's epitome, l.c. and Dr. Bellew's history of Käshghar, Yarkand Report, p. 176.

A short Note on the Date of the Death of Nur Quib 'Aalam.—By H. BEVERIDGE, ESQ.

#### [Read 6th November, 1901.]

In a note published in the J.A.S.B. for 1892, Part I, p. 124, I stated that a book in the possession of the guardian of Nür Qutb's throne at Pandūā was said to give 7 Zī-l-qāda 818 as the date of the Saint's death. Lately I have found this date confirmed by the Mirāt-alasrār, B.M. MS. Or., 216, which on p. 479b gives the date as 10 Zi-lqāda 818 and also gives the same chronogram "*Nūr buūr shud.*" This is interesting for the Mirāt-al-asrār was written in 1045 A.H. (1685 A.D.) and the difference in the day of the month seems to show that the guardian's book and the Mirāt are independent authorities. The Mirāt has a long biography of the Saint, and another of his father.

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The Invention of Chess and Backgammon.-By MAJOR H. G. RAVERTY.

[Received 2nd April, 1902. Read in March, 1902.]

There appears to be much uncertainty regarding the origin of the game of chess. One who has written on the subject asserts, that "The date of its inception no one has discovered, and the question remains to this day a vexed one. Periodically something turns up to bury all former suppositions in the matter, and the day of its birth is pat back a few thousand years."

A German Professor however is said to have "discovered from the last excavations on the pyramids of Sakkara, a wall painting in which an Egyptian king, Teta, is represented playing chess with a high official." This monarch is stated to have reigned about 3,700 B.C.; while another Professor corrects this chronology, and puts it back some six centuries to 3,300 B.C.; so that, according to this last surmise, the game of chess is very old indeed, and must have been known in the once mysterious land of Mizraim only about 5,205 years ago. But all this is absurd.

The game of chess is mentioned in Sanskrit literature, and may be found in some stanzas occurring in the writings of two Kash-miri authors, Ratnā-kara and Rud-rata, the first of whom lived in the first half of the ninth century A.D., and the other in the second half, and in their writings the game is called "*Chaturanga*, or the Four Membered (Army)."

Abū Rihān, the Berūnī or Foreigner, as he is called (the "Albērūnī" of Europeans—al is merely the Arabic article answering to 'the'), who wrote in the reign of Sultān Mas'ūd of <u>Ghaznih</u>, says it was wellknown in his time, early in the eleventh century A.D.—1030 to 1038.

But the earliest mention of the game in Sanskrit writings, as far as we know, is in the first half of the seventh century A.D., in a work entitled "Harsha-karita" said to be the earliest attempt at historical romance in that language, which was translated by Professor

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E. B. Cowell of Cambridge a few years since; but chess is only referred to therein as *known* in Hind, not the time of its inception.

I shall now proceed to show how, when, and why it was invented.

Among the events of the year 353 H., which commenced on the lst of August, 946, of the Christian era, just nine hundred and fifty-five years ago, the death is recorded of Abū-Bikr Muḥammad, known as Sūl-uṣ-Ṣūlī, or Ṣūl, who was a native of a place called Ṣūlī. He was a man of vast erudition, and proficient in most of the sciences and learning then cultivated, including chronology and the traditions of the prophet, Muḥammad, and was the author of several works. He was moreover, the greatest chess-player then known, and was famous as such throughout the Musalmān countries. His skill and proficiency in this game, in consequence, became a proverb; and when anyone attained great skill therein, people used to say: "So-and-so is a perfect Ṣūl at chess," or "He is as proficient as Ṣūl before him."

On this account an idea arose among some persons, that Şūl was himself the inventor of the game; but this was totally incorrect. It was invented by the sage, Sahsih or Sihssih, or Sis as it is written by different foreign, *i.e.* non-Hindī, authorities—but it is a Musalmān corruption of the purely Hindī name of Sahasī, son of Dāhir, whose family, in after years, became rulers of Sind, and which Sahasi was also known under the by-name of Laj-Lāj. He is said to have invented it for a Rai or Rājah of the territory of Sind, named Bhalīt, by some called Baghil, who was famous under the name or title of <u>Sh</u>eram. The reason of its inventiou is said to have been because Ard-<u>sh</u>ir, son of Bābak, of the Sāsāniān dynasty of Irān-Zamīn, or the ancient Persian empire, had invented, long before, the game of *Nard* or Backgammon.

Ard-<u>shir</u> Bābakān having invented it, the game was also sometimes called Nard-i-<u>shir</u>, after him. He devised a chequered cloth (both it and chess are still played throughout the East, on a chequered cloth, which folds up, instead of on a board, as with us) containing twelve divisions or compartments according to the twelve solar months of the Persian year and the *muhrahs* or counters with which *Nard* was played, corresponded with the number of days of the lunar month of the Fire-Worshippers or Ancient Persians; and one half of the counters were white and the other half black, because one half the month has moonlight nights, and the other half dark ones. The moves from one division or space to another he likened to the decrees of destiny, which vary and change, are turned and inverted, in the life of every human being, the fate of each one differing from that of another.

So, after this game of Nard or Backgammon had been invented,

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it was received with the utmost interest and delight; and after it had become generally known, the people of Fārs (Persia proper) used to make a great boast of it, and to exult over those of Siud adjoining them. On this account the ruler of Sind is said to have sent for the snge Sahsih (Sahasi) and to have commanded him to try and invent some other game, which should entirely surpass this boasted Persian game of *Nard*, but to be also played like it, on a chequered cloth, and which among the wise, should be considered much more intellectual, and to require much greater skill, and far deeper thought, to play successfully.

But some centuries elapsed between the time of Ard-shir Bābakān, who was the first monarch of the fourth or Sāsāniān dynasty of ancient Persia, and that of Nāh-shirwān, who was the first of the fifth or Akāsirah dynasty, and in whose reign the Rai or ruler of Sind is said to have sent him a set of chess-men, and a chequered cloth to play it on, as presently to be related.

In the Sindi, as well as in the Hindi dilects, the name of this game is said to be derived from the Sanskrit word *Ohaturan*, signifying 'artful,' 'cunning,' and also 'variegated,' 'bi-coloured,' 'tesselated,' 'chequered'; which is said to refer to the several members, pieces, or component parts, a mere figure of speech referring to the elephant, the horse, the chariot, and the foot soldier, common man, or pawn. The Persians rejected the short u in the word, and called it <u>Shatrang</u>, while the 'Arabs styled the game <u>Shatranj</u>.<sup>1</sup>

The statement regarding its invention, contained in a famous old book, entitled "Nafāyis-ul-Fūnūn," or "Precious Things in Science," is as follows.

Sahsih (Sahasi), also known as Laj-Lāj, son of Dāhir, which latter was one of the ancient rulers of Sind (and the last of the Rais or

1 An amusing scene occurred on one occasion with reference to the pronunciation of the name of chess, at a Court of Requests at Poonah in 1851 of which I was a member, when the Assistant Bäzär-Master, who acted as Interpreter to the Court, mistook the word Shatrang—Chess—for Shatranji—a Carpet. A native, one of the professed chess players, had made a claim on a young Queen's officer totally ignorant of the language, for money lost to him while playing chess, and which the Interpreter rendered, "money, the price of a carpet." When the President was about to give the claim in the native's favour—and the Interpreter had had ample time to correct his mistake, had he known of it—I ventured to observe that the Interpreter had made "a slight mistake," and that the claim was not for a carpet, but for money lost at chees, and which, on being again asked, the native confessed. On this the President, a hot old Colonel, thundered out to the claimant: "Get away you insolent rascal! I have a great mind to order you a flogging, coming here and taking up the time of the Court with your gambling claims!"

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kings of Sind, who fell in battle fighting against the 'Arabs, when they subdued that territory in 94 H.-712-13 A.D.-, was also called Dāhir), was the inventor of the game. Two reasons are given why it was invented. One is, and apparently the most authentic one, that among the ancient rulers of Sind, Rai Bhalit, 1 by some called Rai Baghil, who was very warlike, and who was never contented unless leading his troops against some one, and carrying on wars against his neighbours, at last became afflicted with some painful disorder which precluded him from sitting a horse, or on an elephant; and as he was passionately fond of military operations, and "setting squadrons on the field," he assembled together the sages, and all the most sagacious and ingenious persons of his court and of Sind, and addressed them, saying: "As you are all aware that I am afflicted with this complaint, I desire that you would devise some contrivance, whereby, without being obliged to sit on horse-back or on an elephant, I may still be able to occupy myself in (the semblance of) warfare; so that I may divert my thoughts from brooding over this disorder afflicting me, and thereby obtain some relief."

Sahsih (Sahasī), otherwise Laj-Lāj, son of Dāhir, then came forward, and hàving made his obeisance, represented, saying: "I have in my possession an expedient whereby this difficulty may be solved and remedied, and the Rai obtain the alleviation he seeks." Thus saying, he arose, and having gone to his own dwelling, he soon returned, bringing along with him the game of chess complete, a cloth to play it upon, and the chess-men, all of which he had invented. The other wise men there assembled greatly applauded Sahsih for his invention, and considered that *nard* or backgammon was not to be compared with it; while Rai Bhalīt, was so transported with delight, that he declared to Sahsih, saying: "Demand of me, O sage whatever thou mayest desire, and I will grant it unto thee."

Sahsih, thanking the king, replied: "If the Rai shall be pleased to grant what I ask for, well and good, otherwise it is as he may please to command. I merely ask that a single grain of wheat may be placed on the first square of the chess-cloth, and doubled every time on each

l Al-Mas'ūdī who wrote the "Murūj-uz Zahab wa Ma'ādīn-ul--Jauāhir----" "Meadows of Gold and Mines of Gems"---and described the state of the countries of the east and the west, about 332-33 H. (945 A.D.), in his 7th Chapter, records, that Dab-<u>Shalīm</u>, one of the kings of Sind, who wrote the famous book, "Kalīlah and Damnah," was succeeded by another king named Bhalit, who reigned 80 years; and other writers, including the "Gardaizī," state that, in his time, the book in question, and the game of chess and the means of playing it, were despatched to Nuh-<u>sh</u>īrwān, as mentioned farther on.

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succeeding one. For example; on the first square one grain of wheat on the second two, on the third, four, and on the fourth, eight, and so on; and when the number of squares on the cloth shall have been computed after this manner, be pleased, O Rai! to command that that quantity of wheat be made over to me."

When Rai Bhalit heard this, as he supposed, modest request, he exclaimed to those present in his assembly, in the most contemptuous manner: "I was desirous of bestowing upon him something of great value, and he has instead, merely asked for the most insignificant and paltry thing possible !" To this Sahsih replied : "This is the request that I desire to make, if the Rai shall be pleased to grant it, I do not desire anything more, and shall be quite satisfied with that." The Rai, who imagined he had gone out of his wits, commanded that what he had asked for should be given to him. But when the revenue officials began to make their computation, in order to carry out the Rai's commands, they, in a great fright, despatched one of their number to his presence, who represented saying: "In the whole of our country such a quantity of wheat cannot be obtained as would be required to carry out the Rai's commands respecting Sahsih." When Rai Bhalīt heard this statement, he was filled with amazement, and could not credit it; and he commanded that all the revenue officials should be summoned before him, and show how they arrived at, as he conceived, such an absurd conclusion.

When the revenue officials, with very long faces, appeared before him, he required them to show how they made out that there was such difficulty, nay impossibility, in complying with what Sahsih had asked for; and what they thought it would be advisable to do under the circumstances. They replied, that if the wheat produce of the whole world could be collected together, it would not come up to the quantity required to carry out the Rai's command. On hearing this, Bhalit was still more amazed than before, and he felt certain that they could not be speaking the truth; and he commanded that they should proceed to prove their statement clearly and fully. A number of arithmeticians accordingly assembled together for the purpose; and after making their calculations, declared that it was beyond the power of anyone to comply with Sahsih's request. The way in which they proceeded to prove this was, that, having placed one grain of wheat on the first square, and doubling the number each time, when they reached the sixteenth, it was proved that the quantity then amounted to 32,760 grains of wheat, which is equal to 5 sers; 1 and when the nineteenth square was reached,

1 A weight varying from one pound to one pound fourteen ounces in different parts.

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a mann was required, which is equal to 40 sers. Going on calculating in this nanuer by the time they came to the fortieth square, the quantity required was 2,970,152 manns, which the revenue officials computed to be the produce of one city with its dependent lands and villages, according to the revenue custom in those parts; and they then began to calculate by cities. For the fiftieth square it was found that the produce of 1,024 such cities would be required ; for the sixtieth square, the produce of 1,048,576 cities; and for the sixty-fourth or last square, 16,777,216 cities! But, taking the surface of the whole earth into account, if there should be one city on every square mile even, there would not be sufficient to furnish the quantity of wheat required to carry out the promise given to Sahsih, much less the cities and their lands and villages contained in the Rai's dominions. Hearing this astonishing statement, Rai Bhalit turned his face towards Sahsih and exclaimed: "O sage! thy genius and sagacity in inventing this game of chess are as nothing compared with the astonishing kind of reward which thou hast chosen for it."

As it was found thus to be impossible to comply with Sahsih's request, whether he received or accepted any other reward, the chroniclers do not say. Be this as it may, Rai Bhalit used to be constantly occupied in playing the game up to the time of his death. When this took place, there was no heir to succeed him on the throne, save his wife. who was then pregnant by him. Consequently, his widow, in concert with the chief men of the country, proceeded to administer its affairs until the period arrived for her being delivered; and she gave birth to a male child. She gave him the name-not a title here-of Shah; and used to devote herself to his bringing up, and to his education. During his childhood and early youth, she continued as before to carry on the affairs of the country; and when Shah grew up, he, inheriting his late father's warlike spirit, began to undertake military expeditions; and he brought the whole of his father's territories, some of which had been seized by enemies during his minority, completely under his sway. In whatever direction he turned his arms he used to be successful, until after some time had passed away, in one of his more distant expeditions, he was dangerously wounded in an encounter, and died of his wounds.

There was no one about the court who could venture to break this sad news to his mother, and acquaint her with the fate of her son, until one of the chief men, who was a proficient in the game of chess, which her late husband, Rai Bhalit, used so much to delight in, agreed to acquaint her. When he reached the presence of the Rāni, he found her in a state of great anxiety and despondency, and her mind much disturbed on account of the prolonged absence of her son. Although he was well

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aware of the reason, he inquired of her the cause of her affliction. and the disturbed state of her mind, waiting for an opportunity to acquaint her with her son's fate. She replied : " It is now a long time that no news has been received of Shah, my son, and nothing appears to be known as to the cause thereof, or what may have befallen him; and this surely is enough to make his mother's heart sad." The great man replied, saying: "It should be known to the Rani, that from the hardships and dangers attending distant expeditions there is no remedy, and no avoiding them, nor the anxieties, uncertainties, and reverses attendant on the exercise of sovereign power, and the couduct of military affairs." He then managed to lead the conversation to the invention of the game of chess for the amusement and diversion of the late Rai, her husband, which interested her so much, that she requested him to go at once and bring the chess-men and the cloth to play it on, and teach her how the game was played. He did so accordingly; and he continued to teach her for some days, in such wise that she soon gained some expertness therein, while, at the same time, it diverted her mind from constantly brooding over the non-receipt of authentic tidings of her son.

She was one day engaged in playing the game with this great man, and was winning, the superiority being on her side, when all at once she called for the <u>Sh</u>āh or King; and as her opponent's <u>Sh</u>āh had no move left on the board or cloth, she exclaimed: "<u>Sh</u>āh māt," which, literally, means, "<u>Sh</u>āh is undone," "overthrown," or "destroyed." The great mau, now finding the opportunity he sought, replied: "May the life of the Rānī be prolonged, but it is now some time that this very mishap occurred to <u>Sh</u>āh, her son, as is here shown; and no one dared to break the sad news; but now it has been pronounced from her own lips." The truth now flashed upon her, and the fate of her son she thus learnt by means of the game of chess; and though she was greatly distressed, as may naturally be conceived, the delicate mauner in which it was imparted, tended, in some measure, to alleviate her affliction and sorrow, and to enable her to resign herself to the inevitable and irrevocable.

There is, however, another account respecting the manner in which the news of her son's death was imparted to the Rānī, as I before mentioned. It is, that when Rai Bhalit found his end approaching, he named his only son, Gau, then a mere boy, his successor, and soon after died. On account of his youth he was then incapable of being intrusted to carry on the affairs of government, and, consequently, the chief men of the kingdom held counsel together, and deemed it advisable to coufer the government on the late Rai's brother, Gau's uncle, who was named Dambir, and made him Regent, until such time as Gau should be capable of assuming the reins of authority.

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As soon as Dambir became firmly established in possession, and affairs had assumed a settled state, he married the widow of his late brother, the mother of Gau; and she in due course of time bore him a son, who was named Talchand. Not long after Dambir also died, and the twice widowed mother of these two sons by her two husbands, was left to administer the affairs of the country, until her eldest son should be capable of doing so, and she accordingly assumed the reins of Government. Bat as her two sons grew up, rivalry arose between them, which continued to increase, until, at last, when they had attained near unto man's estate and years of discretion, they began openly to quarrel for the possession of the sovereignty. Notwithstanding that their partizans and supporters and well-wishers endeavoured to pacify them, and bring about a reconciliation between the rivals, their efforts were of no avail, and, at last, the two brothers came to an open rupture, and hostilities ensued between them. Having mustered their followers, they come to an encounter, during which, the forces of Talchand took to flight, leaving him on the field among his adversaries. He was mounted on an elephant, and was unable to get out of the mélée, and manfully stood his ground. His brother's forces had so completely surrounded him, indeed, that his elephant could not move one way or other, and his escape was entirely cut off; and in this helpless state he died of pride and chagrin. His mother was overwhelmed with grief at his loss, and would not be comforted; and it was with great difficulty that she could be prevented from ascending the funeral pyre with the corpse of her son, Talchand.

Gau, her eldest, sent a message to his mother, in order to clear himself from the supposition that he had caused his brother to be put to death, and at the same time, besought her to abandon the idea of destroying herself; that he had had nothing to do with his brother's death, which had happened in the manner related above. Gau then directed the sages of Sind to adopt some means of demonstrating to his mother how Talchand was situated at the time of his death; and this one of them succeeded in doing by means of the game of chess, in which he had managed to interest her. He took the chess-men and chequered cloth, and showed her how the game was played. In the course of the game the Shah Badshah, or Shah, the King, on the board or cloth, became shāshdār, or unable to move, and the Foot-men, the Elephant (the Bishop of Europeans), the Horse-man (the Knight or Chevalier), and the Wazir or Queen, surrounded the Shah Badshah or King, on all sides, when the players exclaimed : "Shāh māt" or "Shāh, the King, is undone or destroyed," and having no move left, and no means of flight or retreat, he perished accordingly, and the game was won.

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The wise men who were present during the playing of the game, now succeeded in showing the Rāni that this game represented the situation and positions of Gau and his brother, Talchand, on the occasion of the latter's death, after being deserted by his followers, and being left on the field completely surrounded by his opponents; that Gau himself never moved from his position in the slightest degree; but that his forces had made Talchand "shāshdār" or unable to move; and that Talchand, finding himself in this position, out of his great pride, and the chagrin at the helpless state he found himself in, died, and thus became "Shāh Māt" or undone—Check-mated.

The Rānī thus became convinced as to the cause and manner of her son Talchand's death; and she was satisfied in her mind that Gau had not slain his brother. She now learnt the game, and began herself to play it; and whenever the "<u>Sh</u>āh Māt" came about, she would melt into tears at the remembrance of her son's fate; and Gau now became ruler of the country.

It is from these words "Shāh Māt," that the words "Check Mate" are derived, showing how words in the course of ages, handed down, too, from one race of people to another, become vitiated. The word "Māt" is derived from the 'Arabio māta, "he is dead"; and is used in Persian to signify 'conquered'; 'subjected,' 'reduced to the last extremity,' etc. Both Shāh and Bādshāh mean a king or sovereign, but the former word is given as a name to a man, as well as being used as a title, but the latter very rarely so, as in the title and names of the famous Saljūk sovereign, Sultān Malik Shāh, all three words being of the same meaning; but the first is his title, and the latter his name, Malik Shāh. The word "Rukh," likewise, which Europeans call the Rook or Castle, has various meanings, one of which is the name of the fabulous bird of the "Arabian Nights," and other eastern romances and traditions (but vitiated into "Roc"), and after which word, "Rukh," eastern lexicographers say, one of the pieces in chess was named.

It remains now to be mentioned how and in what manner the game of chess was first introduced into Irān-Zamīn or the ancient Persian empire.

That part of western Hind or India lying nearest to Persia, which at present constitutes the province of Sind, and the southern part of the country of the Panj Ab or Five Rivers, at the period in question, and for a long time after, was well peopled, and in a flourishing condition. The Mihrān of Sind, the great river known as the Great Mihrān, or Hakrā, or Wahindah, and now known as "the Lost River of the Indian Desert," or more correctly, the Dried up Hakrā, flowed through the middle of the country and fertilized it. The Sindhu, or Indus of

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the Greeks, was at that period but a tributary of the Mihran or Hakra and united with the Panj Ab or Five Rivers, giving name to the present territory so called, three days' journey below, or to the southward of Multan. Sind had at a very early period, formed part of the empire of the Persians; and in the time of the Kaiānīan, or third Persian dynasty, in the reign of Gushtäsif, Bahman, his grandson, and subsequent successor, led an army into Sind and Western India. He reduced Sind completely, and some portion of India adjoining it; and in the district of Sind known as Būdah, he founded a city, which he named after himself, Bahman-Abad or Bahman-Nih, which the people of Sind, in their dialect, call Bahman-No, or Bahman's City-ābād and nih both meaning a city in the ancient Persian. The ruins of this city of Bahman still remain; but English writers, under the erroneous idea that the name must refer to the Sanskrit word Brahman, and unacquainted with the past history of those parts, have turned it into Brahman-ābād-a purely Sanskrit name with a purely Persian termination, a wholly impossible combination.

Bahman, known as "Dirāz Dast," or "the Long Armed," is the Longimanus of the Greek writers. He is entitled Kai Ard-<u>sh</u>īr, who married Hadassah or Esther, the Isrā'ilī, a direct descendant of <u>Tālūt</u> or Saul, king of Isrā'il; and to Bahman, the Isrā'ilīs owed their delivery from captivity.<sup>1</sup>

Thus in the time of Nūh-shīrwān, the first monarch of the fifth or Akāsirā (the plural of Kisrā) dynasty, known as "The Just," the territory of the rulers of Sind extended into the northern Panj Åb of the present day, to the then southern boundary of the Kash-mīr kingdom, which then extended over the whole of the alpine Panj Åb and beyond; on the east it adjoined Hājpūt-ānah; northwest to the Khwājah Åmarān range; and west over great part of Mukrān. The then rulers of Sind were not under the direct control of the Persians; but they acknowledged the supremacy of the Persian monarchs, and paid a small tribute in virtue thereof.

Shortly after Nūh-<u>sh</u>irwān had reached his capital, Istakhur of Fārs or Persia proper, on his return from an expedition against the <u>Khākān of the Turks</u>, an envoy reached his court from the Rai of Sind bringing presents for the Kisrā, Nūh-<u>sh</u>irwān, including several elephants; and among other curious things, a set of chess-men, and a cloth on which to play the game. The envoy also brought a message from his sovereign, the Rai of Sind, to the effect that, if the sages of the Kisrā, Nūh-<u>sh</u>irwān's court could discover how this game was

I See my "Mihran of Sind," in the "Journal," Vol. LXI., Part III. for 1893, and "Extra Number," for 1895. ı.

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played, which game one of the sages of Sind had invented, he would be ready to give up his territory and his treasures to him; but, if they could not, it would be unworthy in him to acknowledge Nuh- $\underline{sh}$ irwān's superiority, or pay tribute to him in future; and it would be unjust and unbecoming in him, the Kisrā, under such circumstances, to entertain the idea of enforcing it by invading his territory; and further, in case any of the Kisrā's wise men had invented any thing of the kind, that he would be pleased to send it to him." This message, therefore, was equivalent to a wager, that he would stake his territory and wealth against Nuh- $\underline{sh}$ irwān's claim to suzerainty over Sind and the extortion of tribute, and that the sages of Persia could not discover how the game of chess should be played; but, in this, the Rai of Sind was "Check Mated" at his own game, as will presently appear.

I must here retrace my steps for a moment, to refer to the famous Minister of Nüh-shīrwān, the sage, Būzur Jamhir.

One night in the early part of his reign, Nüh-shirwan had a dream, which greatly disturbed him. He beheld himself seated on the throne, with a goblet of wine in his hand, and was about to quaff some of its contents when a hog, which was seated at his side unperceived, snatched the goblet out of his hand, and drank of the contents. He caused the wise men of his court to be summoned to his presence; and when they were assembled he related to them his horrid dream, and requested that they would interpret its meaning to him. All were at a loss to explain it, until after a short time, one of the Mübids or Priests of the Gabrs or Fire Worshippers, brought to Nuh-shirwan's presence, a young man, a native of Marw of Khurāsān, who had lately been studying at Balkh, where was the great Atish-Kadah or Temple of the Gabrs, who was named Abūzur Jamhir, or Būzur Jamhir, to interpret the monarch's dream, which still disturbed him greatly. The dream having been told him, he, after some consideration, explain-"In the Kisrā's haram (vul. "harem")-which He said: ed it. contained upwards of one hundred ladies, the sisters and daughters of kings and petty rulers-there is one lady, the daughter of the Malik or king of Chāje (the ancient name of Farghānah) of Turkistān; and along with her, in the disguise of a slave girl, there is a youth, and he is on terms of intimacy with her." This interpretation amazed all present; and Nüh-shirwan commanded that investigation should at once be made, and that all the ladies and female attendants of the haram should be brought before him one by one; and the young man, the Khwajah, Buzur Jamhir, was in attendance. He detected the youth disguised as a female slave; and he, along with his paramour, was forthwith put to death.

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From that time forth, the favour of  $N\bar{u}h-\underline{sh}\bar{i}rwan$  was bestowed upon the young Khwājah, whose esteem he acquired, and who rose to high rank, soon becoming his chief minister. At last, according to the chronicler, Abū-l-Faẓl-i-Baihaķi, who wrote about the year 450 H. (1058 A.D.), Būzur Jamhir fell into disfavour, because he abandoned the faith of Zurtusht (vul. "Zoroaster"), and became a convert to Christianity. Nūh-<u>sh</u>īrwān cast him into prison in consequence; and notwithstanding the tortures to which he was subjected by "The Just" monarch—in this instance sufficiently Unjust—to get him to recant, he would not do so. He held out, and eventually became blind, and totally so, as it was supposed, from the tortures to which he had been subjected; but others say he was blinded by Nūh-<u>sh</u>īrwān's command.

To return to the envoy from the ruler of Sind, and the game of chess. Nuh-shirwan, and the learned men of his court, never having seen anything of the kind before, were, of course, quite unable to understand the game, and were at a loss to explain it. At this time Būzur Jamhir had been deprived of his sight, which Nuh-shirwan is said to have greatly regretted when too late; but the sage was still in confinement. He was now sent for; and when he entered the presence of Nüh-shirwan the latter expressed his regret for what had been done. Buzur Jamhir replied: "When a king becomes angry with a servant, it behoveth him to deprive the servant of something or other, in order that, should his sovereign subsequently relent, and show compassion towards his servant, he may be able to restore it to him again; but the blessing of sight cannot be thus restored when once destroyed." Nüh-shirwan was quite abashed at these words, and felt completely humbled; and the sage continuing, said: "But through the auspicious fortune of the king, my sovereign, a little sight still remains in his servant's eyes." Having expressed his delight at hearing these words from the mouth of the sage and returning thanks to Heaven that he was not totally blind, Nühshirwan had the envoy from the Rai of Sind called in; and when he entered, the chess-men and the cloth were produced for Būzur Jamhir to look at, and to discover, if he could, how the game was played. Buzur Jamhir, after examining the chess-men, said to the envoy. "Come along with me that I may play a game with thee." The envoy accompanied him accordingly; and ranging one half the chess-men on the cloth, he waited to see what Buzur Jamhir would do. He ranged his chess-men exactly after the same manner; and the Sindi envoy commencing to move, Būzur Jamhir followed him in his moves. He lost the first game, but improved on the second, which was a drawn game, and beat the Rai's envoy in the third, and checkmated him !

The sage subsequently, in the retirement of his prison, improved

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upon the game of *Nard* or Backgammon. He did not invent it, as some have supposed; for it had been known long before, as I have already shown. But, in former times, before Būzur Jamhir improved upon it, the dice were but two, on each of which were fifteen marks or dots, which being added up made thirty, and the game was single. Būzur Jamhir added one dice more, and five other *mansūbahs* or points, as now used; and when he had completed his improvements, a complete set was despatched to the ruler of Siud, as he had requested. What the upshot of the Rai's challenge was respecting the game of chess has not been recorded.

The names of the seven mansūbahs or points in Nard or Backgammon, as improved by the sage, Būzur Jamhir, are, 1. Kād, which means quantity. 2. Ziyād, increase or growth. 3. Satārah, veil, curtain, star or fortune. 4. Hazāran, thousands. 5. Khānah-gīr, holder or possessor of the house or compartment. 6. Tawil, long prolix, tall; and 7. Mansūbah, plan, project, scheme, or game.

The Arabian prophet, Maḥammad, was born in the fortieth year of the reign of the Kisrā, Nūh-shīrwān; and the historian, Abū-l-Fazl-i-Baihaķī, previonsly quoted, who states that Būzur Jamhir had become a Christian, says, that the sage, shortly after these events, died from the effects of the ill-treatment he had been subjected to; and that a year after his death, Nūh-shīrwān himself, "departed to the Fire-Temple below," after a reign of forty-seven years, when Muḥammad was in his seventh year, 576 A.D. He died a natural death, and was never deposed, as Gibbon tells us; but his son and successor, Hurmuz, was.

The pieces in the game of chess were, at first, wooden figures having the human form; and what is known now as the King, was then called Shāh Bādshāh, from Shāh son of Rai Bhalit. The Castle or Tower of the present was then styled the Rukh, after that fabulous bird, as before mentioned; the Bishop of the present day, was then the Fil or Pil (f and p are permutable) or Elephant, and was sometimes called the Camel; the Knight or Chevalier was known as the Faras, or Asp, signifying a Horse; the Queen was styled Farz, or Farzīn, or Farzī, or Farzān, and also Wazīr or Minister; and the Pawn or Foot-soldier or Common Man, was called Piyadah as those words signify. "Shāshdār" means "Confounded," "Distressed," "Astonished," "Useless for a square," "Tied up;" and "Shāh Māt," as before mentioned, means "Shāh Bādshāh, or Shāh, the King, is reduced to the last extremity, conquered," etc.

The names used in India differ somewhat, most of them being derived from the Sanskrit language.

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The wise and accomplished Khalifah, Al-Māmūn, son of Harūnar-Rashīd, composed some lines on chess, which literally are as follow :---

"Upon a square of red-dressed leather,

Two friends, for generosity well-known, Re-call war to mind, and thereon stratagems invent. Without the guiltiness of shedding blood therein,

This assaults that, and that assails this; And the eye of vigilance sleepeth not. Behold the ingenious foes! how skilfully they move Between two hosts, without banner or drum."

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#### Babhan.-By MAHAMAHOPADHYAYA HARAPRASAD SHASTRI.

### [Read 5th March, 1902.]

There are in Behar and in Benares a class of men known as Bābhans or Bhuī-hārs. Their position in Hindu society is extremely anomalous. They claim to be Brāhmans but no good Brāhmans such as the Kanojia and Sarayūpāriyā treat them on equal terms. They would neither inter-marry with them nor eat with them. On seeing a Brāhman a bābhana makes his obeisance, saying: "*Paon lagi*," (I touch your foot), the Brāhman does not nod in return but pronounces a benediction as he would do to an inferior caste.

The high position attained by some members of this class, such as the Mahārājās of Hatua, Tikāri, Betia, and in the North-Western Provinces of Benares has raised them in the estimation of the Hindus, and some of them now claim to be Brāhmans and profess to be students of Yajurveda. But the professors of other Vedas too are not rare.

The anomalous position held by these has long attracted the attention of scholars. The Pandits think that they are Murdhā-bhişiktas a class between Brāhmans and Kşatriyas. So they bow to the Brāhmans and Brāhmans pronounce benediction on them. They offer a curious problem to these engaged in the investigation of castes and occupations of Indian people.

I was struck the other day to find in the Asoka inscriptions, the term Bābhan used several times as a corruption of the word brāhmana in the pillar inscriptions. In one place it is used with the Ajīvikas a well-known sect of ascetics in ancient India whom Keī identifies with the Bhāgavatas. In another place it is used in connection with the Çramaņas, Buddhist monks.

Now the question is, why is the Asoka corruption, *i.e.*, Buddhist Corruption, of the word Brāhman be the proper name of a peculiar class of men who claim to be Brahmans, whose claim is not admitted by Brāhmans?

In Hindu Sanskrit works we often hear of Brahmana Cramanas,

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i.e., those who were Brahmans once but had became Cramanas and lost their Brāhmanhood, but still they are called Brāhmans.

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From these two facts I have been led to conclude that the Bābhans were Brāhman-Buddhists who lost their caste and position in Hindu Society, but on the destruction of Buddhism are again trying, though unconsciously, to regain the old position they enjoyed 2,000 years ago.

Leaving the safe ground of philology if I am permitted to speculate a little, I believe I have got the derivation of the word Bhūmi-hāraka. After the fall of Buddhism these Bābhans misappropriated the rich monastic lands and from that fact they are called Bhumi-hārakas. The word Bhumi-hārak is not a Sanskrit word. It is not to be found in any Sanskrit Dictionary. It is a Sanskritized form of the Hindi word Bhumi-hāra, the misappropriator of land.

The geographical distribution of the class (Bābhan) favours the theory of their Buddhistic origin. They are to be found in western Bihar and eastern Koçala countries where Buddhism originated and lingered longest.

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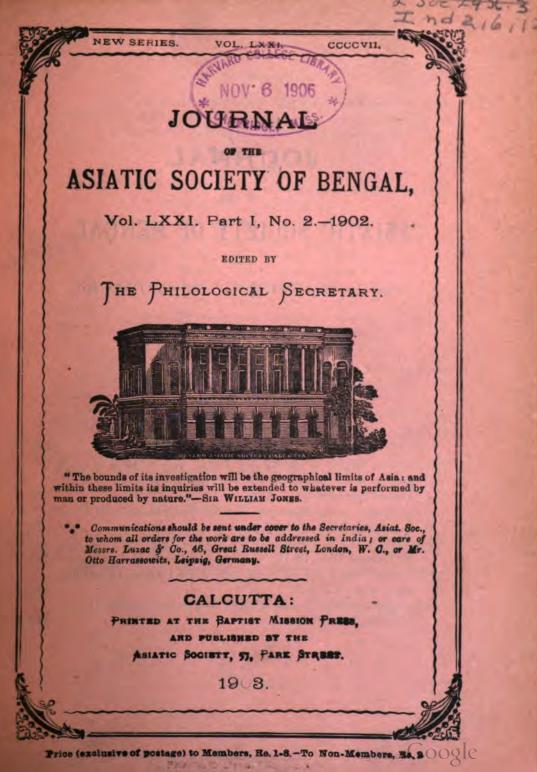
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RS. AS.



Issued 6th April, 1903.

# JOURNAL

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Part I.-HISTORY, LITERATURE, &c.

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Under orders of the Council the following system of transiteration will be adopted for the future in all publications of the Society. Authors of papers for the *Journal*, Pt. I, are particularly requested to adhere to it in their contributions.

## A. FOR THE DEVANAGARI ALPHABET, AND FOR ALL ALPHABETS RELATED TO IT.

| ₹а, |                  |                      |                     |               | 17, <b>41</b> , 100 | , <b>€</b> ē, |
|-----|------------------|----------------------|---------------------|---------------|---------------------|---------------|
|     |                  |                      |                     |               |                     |               |
|     | <b>Φ</b> κ,      | <b>•</b> <i>kn</i> , | <b>₽</b> <i>g</i> , | <b>4</b> gh,  | <b>T</b> ŋ          |               |
|     | Чс,              | 🗨 ch,                | <b>च</b> j,         | ₩ jh,         | <b>u</b> <i>ñ</i>   |               |
|     | <i>≖ t</i> ,     | T įh,                | ₹ d,                | T ợh,         | T ș                 |               |
|     | <i>त्त t</i> , ' | <b>u</b> th,         | <b>₹</b> d.         | ¥ dh,         | न n                 |               |
|     | Ч р,             | u ph,                | <b>₹</b> b,         | <i>મ bh</i> , | म m                 |               |
|     | <b>u</b> y,      | ₹ <i>r</i> ,         | च l,                | ۹ v,          | ( a J)              |               |
|     | म् ç,            | ۹ ş,                 | <b>च</b> <i>s</i> , | <b>T</b> h.   |                     |               |

In the above the *rirāma* has been omitted for the sake of clearness. In Modern Vernaculars only;  $\mathbf{\overline{\psi}}$  may be represented by r, and  $\mathbf{\overline{\psi}}$  by rh.

Avagraha is to be represented by an apostrophe, thus चो sta so 'pi. Visarga is represented by h, Jihvāmūlīya by h, and Upadhmānīya by h. Anusvāra is represented by in, thus एंडजे sumsarga, and anunāsika by the sign ~ over the letter nasalized, thus चैं ä, चा ā, and so on. The udātta accent is represented by the sign ' and the svarita by '. Thus, चा agnih, जा चिता janitá, चै kva, ज्या kanyā. The anudātta accent may be represented by '. Thus, चे घुर्धेन té àvardhanta.

# B. FOR PERSIAN (INCLUDING ARABIC WORDS IN PERSIAN) AND HINDŪSTĀNĪ.

(The system is not applicable to Arabic when pronounced as in Arabic speaking countries) :---

| Vowels.                  | Consonants.       | Sounds only found in<br>Hindūstānī. |  |  |
|--------------------------|-------------------|-------------------------------------|--|--|
|                          | b ب<br>ب p<br>ت t | e; bh<br>وي ph<br>وت th<br>ت t      |  |  |
| ۲۰ ای<br>ĕ ۲<br>۲ u<br>¢ | e ي<br>ت          | 4 <sup>₽</sup> th<br>47 jh          |  |  |
| ⊽ اور                    | ē c               | the ch Digitized by Google          |  |  |

Vowels.

ai ای

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Consonants. Sounds only found in Hindūstānī. þ ۲ Ż kh d 83 dh ż ġ **8**3 dh Z r 3 ŗ ţþ 83 z ć zh c 8 ش sþ ص ş کی تی تو خراط ملط کی کی تی تو خراط ملط مل Ţ ţ ž 6 gh f q k kh S g gh J 1 m ۴ ພ n ں when representing anunāsika in Dēva Nagari, by ~ on the preceding vowel w (or rarely v) و h à ى У

Hamzah i (where necessary)'

Tanwin may be rendered by <u>n</u>-e. g., ittijäqa<u>n</u>. Alif-i maqsürah should be rendered by  $\tilde{a}$ .

Final 3 need not be written in Persian and Hindustäni words, but should be written in Arabic words.

# JOURNAL OF THE ASIATIC SOCIETY OF BENGAL.

Part I-HISTORY, LITERATURE, &c.

No. 2-1902

Notes on the Dialect of the Kangra Valley, with Glossary of words peculiar to the Kangra District.—By the late Edward O'Brien DEPUTY COMMISSIONER OF KANGRA.

## PERSONAL PRONOUNS.

Singular.

|       | Main, " I. "                                                            |
|-------|-------------------------------------------------------------------------|
| •••   | Minjo, " me, to me."                                                    |
| •••   | Main, " by me."                                                         |
|       | Minjo te, "from me."                                                    |
| •••   | { Minjo vich, "in me."<br>Minjo upar, "on me."                          |
|       | Plural.                                                                 |
| •••   | Assán, "we."                                                            |
| •••   | Assán jo, " us, to us."                                                 |
| •••   | Assán tea, "from us."                                                   |
| •••   | $\dots \begin{cases} *Mhárá \\ Mháre \\ Mhári \end{cases}$ "our, ours." |
| •••   | Assán vich, " in us."<br>Assán upar, " on us."                          |
| Prono | un is declined as follows :—                                            |
|       | <br><br><br><br>Prono                                                   |

## Singular.

| Nominative             | ••• | ••• | Tú, " thou."           |
|------------------------|-----|-----|------------------------|
| Dative<br>Accusative } | ••• | ••• | Tijo," thee, to thee." |
| Agent                  | ••• |     | Tain, " by thee."      |
| Ablative               | ••• | ••• | Iijo tea, "from thee." |

\* Th is is like the Márwárí forms of Hindi, cf. Márwárí... Mháro, " our, onrs."

# E. O'Brien-Notes on Kangra Dialect.

| Genitive            | ••• | $\dots \left\{ \begin{array}{c} Tera \\ Teri \\ Tere \end{array} \right\} $ " of thee, thine." |
|---------------------|-----|------------------------------------------------------------------------------------------------|
| Locative            |     | Tijo vich, " in thee."                                                                         |
|                     |     | Plural.                                                                                        |
| Nominative          | ••• | Tussán, " you."                                                                                |
| Dative Accusative } | ••• | Tussán jo "you, to you."                                                                       |
| Agent               |     | Tussán, " by you."                                                                             |
| Ablative            | ••• | Tussan te, " from you."                                                                        |
| Genitive            | ••• | { Tumhárá<br>Tumhári<br>Tumháre } " of you, yours."                                            |
| Locative            | ••• | Tussán vich, " in you."                                                                        |

[No. 2,

The Proximate Demonstrative Pronoun is declined as follows :--

## Singular.

| Nominative   |     | { <i>Eh</i> , " this, ho."<br><i>Eh</i> , " this. " |
|--------------|-----|-----------------------------------------------------|
| Accusative } | ••• | Is jo, " this, to this."                            |
| Agent        |     | Ini, " by this."                                    |
| Ablative     |     | Is te, " from this."                                |
| Genitive     | ••• | Is da, etc., " of this."                            |
| Locative     |     | Is vich, " in this."                                |
|              |     | Plural.                                             |
| Nominative   | ••• | Eh, " these, they."                                 |
| Accusative } | ••• | Iná jo, " these, to these."                         |
| Agent        | ••• | Ina ne, "by these."                                 |
| Ablative     |     | Ina tea, " from these."                             |
| Genitive     | ••• | Ina da, " of these."                                |
| Locative     | ••• | Ina vich, " in these."                              |
|              |     | France                                              |

EXAMPLE.

Eh sach galánde je asá jie narású mare.

The Interrogative Pronoun Kyá "what?" is declined as follows :--

Plural.

| Nominative           | ••• | Kyá, " what ? "      |
|----------------------|-----|----------------------|
| Dative<br>Accusative | ••• | Kajo, " for what ? " |
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Ablative ... ... Kes tea, "from what ?" Locative ... Kes vich, "in what ?"

#### EXAMPLE.

Rátí de handhne dá kyá phal paeá. Jangháň dá núr guáe Rám. Of wandering on foot at night what fruit díd you get ? You spoiled the splendour (literally, light) of your legs, Oh Ram !-- Marriage Song.

The Interrogative Pronoun Kun " who ? " is thus declined :-

Singular.

| Nominative               | •••     | •••   | <i>Rup</i> , " who ? "               |
|--------------------------|---------|-------|--------------------------------------|
| Dative }                 | •••     | •••   | Kue jo, "whom, " " to whom ? "       |
| Ablative                 | •••     |       | Kus tea, "from whom ?"               |
| Genitive                 | •••     | {     | Kus da<br>Kus di<br>Kus di<br>Kus de |
| * Ágent                  | •••     | •••   | Kuni, "by whom ? "                   |
|                          |         | Pluro | zł.                                  |
| Nominative               |         | •••   | Kuņ, " who ? "                       |
| Dative }<br>Accusative   | •••     | •••   | Kináň jo " whom " " to whom ? "      |
| Ablative                 | •••     | •••   | Kináň tea, " from whom ? "           |
| Genitive                 | •••     | {     | Kináň da<br>Rináň di<br>Kináň de     |
| Agent                    | •••     | •••   | Kinan, " by whom ? "                 |
| Terá mungiá a            | lupattá | kini  | rangi ditá.                          |
| By whom was<br>(Kángra). | your gr | een d | lupattá dyed ?Marriage               |

REMOTE DEMONSTRATIVE PRONOUN Oh " that," " she, " " he, " " it."

Singular.Plural.Nominative . Oh, " he " ... Oh, " they."Dative ...AccusativeUs jo, " him, to him" Unáň jo, "them, to them."Agent ... Uni, " by him " Unáň, " by them."Genitive ... $\begin{cases} Us da \\ Us da \\ Us ds \end{cases}$  " of him"... $\begin{cases} Unáň da \\ Unáň da \\ Unáň de \end{cases}$  " of them."

\* Kini is also in use for the agent.

#### CORRELATIVE PRONOUN Seh.

Plural.

| Nominative . |                  | $\mathbf{the}$ | same," | Seh.                           |
|--------------|------------------|----------------|--------|--------------------------------|
| Dative }     | Tis jo           | •••            | •••    | Tinán jo.                      |
| Agent        | Tiní             | •••            |        | Tinán.                         |
| Curiting 1   | Tis da<br>Min di | •••            |        | Tiná <b>n</b> da.<br>Tinán di. |
| Genitive {   | Tis de           | •••            |        | Tinán di.<br>Tinán de.         |

## RELATIVE PRONOUN Jo.

#### Singular.

Singular.

## Plural.

[No. 2,

Nominative...Jo, "who, which "... Jo, "who, which." Dative Accusative Jis jo, "to whom, to which." Jinhán and Jinhán jo. Agent ...Jini, "by whom" Genitive ...Jis da, "of whom" ...Jinhán da, of whom. Ablative ...Jis tea, "from whom." Jinhán tea, "from whom."

#### EXAMPLES.

Seh apní mái dá bará ladla he.

He is a great darling of his mother.

Tis di junasa bari laráki he.

His wife is very quarrelsome.

- Main vakíl bhi kitá. Tiní dhavve máre, kichh ultar tiní bhí nahín kítá.
- I engaged a vakil. He consumed (my) money, (but) he did not even make any answer.

Jinhán musadián da bal, tinhán bhare perú pal.

Those who have the assistance of the officials, have their grain receptacles (perú pal) full.

Jinhán jo, Rajea, tera trán.

Those to whom, Oh Raja, is your help.

Tinhún de ghar na khán na manje bán.

To their houses is neither food nor strings for their beds.

#### PRONOMINAL ADJECTIVES OF KIND.

| Adehá,  | " such," " like this," Hindi, | Aisá.   |
|---------|-------------------------------|---------|
| Tadeha, | "such," " like that," "       | Waisá.  |
| Jadehá, | " like which," " as," "       | Jaisá.  |
| Kadehá, | "like what," "how," ",        | Kaisi 🛛 |

#### EXAMPLES.

Adehá guár koi mere dekhne vich nahín aea.

No fool like this came within my experience (within my seeing).\*

Seh sáhab kadehá he.

What is that sabib like ?

Jadehá aglá thá tadeha hí he.

As the former was like that exactly is he.

AUXILIARY VERB Honá, " to be."

Present.

#### Singular.

#### Plural.

Maiñ hán," I am." Tú he, "you are." Oh he, "he is."

Assán húñ, "we are" (hu). Tussán háñ, "you are" (hu). Seh háñ, "they are" (hin).

#### Future.

Main hongha, "I will be." Assán honghe, "we will be" (bhole). Tu hongha, "thou wilt be." Tussán honghe, "you will be" (bhole). Sehhongha, "he will be." Seh honghe, "they will be" (bhole). The past tha, "was," is like Hindi.

Aj mere boți kamán pichhe ke rahi gas hái To-day my cook servants have remained behind. (Kángra). Tussán aj kal kia pahrde hái?

What are you reading nowadays ?

Eh Rájpút halke háň.

These are low Rájpúts.—(Kángra).

Kasora ri wífe bari khundar he.

Kasorá's daughter is very handsome.—(Gúdí of Dharamsála).

Atháhún to páhile jo sahib thủ so khará thú.

The sahib who was before him, he was good. Pronominal Adverbs of direction like *idhar* "hither," *udhar* "thither," *jidhar* "whither," *tidhar* "thither," *kidhar* "whither," seem to be wanting in Jándari.†

This would be in Gádi :— Mhá gowár mere herne má ná á No fool like this came within my seeing. (Observe—" herna," to see, " ma " for manj, in, " a," 3rd singular past tense of áná," to come "=áyú).

† Jándar or Jhándar is the term used by the Gaddis for the country net included in their country, the Gadderan. [It literally means 'cotton-clothed,' i.s., the people not dressed in woollen garments like the Gaddis.]

1

PRONOMINAL ADVERB OF MANNER.

**Proximate Demonstrative.** 

Ihán, " thus." Correlative.

Tihán, " so."

Belative. Jihan, "as." Interrogatire. Kihán, "how?" ÍNo. 2,

## Adverbs of Time.

Agáhán, " before, " (Hindi ágé), also agen. Aj, " to-day," as in Panjábi. Kal, " to-morrow, yesterday. " Parson, "the day before yesterday, or the day after tomorrow." Chauth, " the fourth day past or future, counting to-day as the first day, tomorrow or yesterday as the second. &c. Panjoth, " the fifth day." Chioth, " the sixth day." Pachahan, " after, afterwards." Phiri, again." Bhiágá, " in the morning." Bárambár, " repeatedly. Kadi kadái " sometimes, rarely." Nit, " continually, always." Pápí lok Paharie pathar jinhán de chit. Ang maloá kadí kadáí, nain maloá nit. The mountain people are wretches, whose hearts are stone. They join bodies rarely, they are always joining eyes.-Song. Hun, " now." Adverbs of Place. Nere, " near." Pár, " over, across." Uár, " this side, " uár-pár. Wál, "to, towards." Tahsildáre wál já, "go to the Tahsildár." Aresi paresi, "on both sides," " all around." (Hindi ús pás). Páráhan, " on that side." (Hindi-Pare). Uráhán, " on this side." (Hindi-Urs). Andar, " within," and báhar, " without," are as in Hindi.

Agáhan, " before."

Pacháhan, "behind."

Taithe, Takthi, " there."

Taithi Gádí saite galá bátá karí.

There with a Gadi I talked.—(Dharamsala).

Handará, "elsowhere." So apní zamíň chaddí handara na gahnde, "they abandoning their laud do not go elsowhere."

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## PRONOMINAL ADVERBS OF TIME.

Proximate Demonstrative.Remote Demonstrative.Relative.Hun, ibhen, "now,"Then.Jálú, "when."Correlative.Interrogative.Tálú, "then."Kálú, "when."

PRONOMINAL ADVERBS OF PLACE.

Proximate Demonstrative.Remote Demonstrative.Relative.Ithú, "here."Othú, "there."Jithu, "where."Ithe (Kutlehr).......Correlative.Interrogative.Títhú, "there."Kuthú, "where?"Taithe, "there."(Gádi).

#### MABBIAGE SONG.

Rátí da handhnú jo chhadi deh, Kahná. Hun hoeá gharbárí, Rám. Agen tú thá, Kahná, hálú guálú. Hun hoeá gharbárí, Rúm.

Give up wandering at night, Oh Kahna ! Now you have become a married man, Oh Ram ! Before you were, Oh Kahna ! a ploughman and a cowherd ! ' Now you have become a married man, Oh Ram ! Mahrián dá sang chhadi, chhaddi deh, Kahna. Hun hoeá gharbárí, Rám.

Abandon, abandon the society of Gujar women, Kahna. Now you have become a married man ! Oh Rám ! Mahar is a Gujar and Mahari a Gujar-woman.

### THE NUMBRALS.

| 1. | Ik.    | 11, | Giárá.       | 21, | Ikí.    | 81,         | Ikatri.   |
|----|--------|-----|--------------|-----|---------|-------------|-----------|
| 2  | Do.    | 12, | Bárá.        | 22, | Baí.    | 32,         | Batrí.    |
|    |        |     | Tehrá.       |     | Treí.   | 38,         | Tetri.    |
|    |        |     | Chaudá.      |     | Chaubi. | 34,         | Chautri.  |
|    | Panj.  |     | Pandrá.      | 25, | Panji.  | 35,         | Panjatri. |
|    | Uhhia. |     | Solrá.       | 26, | Chhabi. |             | Chhiatri. |
|    | Sat.   |     | Satáró.      | 27, | Satai.  |             | Satatri.  |
| 8. | Ath.   |     | Athárá.      |     | Athai.  |             | Athatri   |
|    | Nau.   |     | <b>Úni</b> . | 29, | Unathi. | <b>39</b> , | Untáli.   |
|    | Das.   |     | Bih.         |     | Trihi.  |             | Cháli.    |
| -  |        | -   |              |     |         |             |           |

#### SONGS.

Songs sung by women at weddings of Brahmans, Rájpúts and Khatrí in Kángra-

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## Assán bachháí kálí kamalrí jí, Kuramen bachhái sutranjí jí ; Tussán ai baho angans

We have spread black blankets jí,

The opposite party in marriage (Kuram) have spread carpets jí ;

[No. 2]

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Come you and sit down in the courtyard.

[Note.—In marriage parties the bride's family are "kurame" to the bridegroom's party and the bridegroom's party are "kurams" to the bride's. There is no English word which expresses the relationship.]

Kí tussáň mongde tukrá, Muchrá kí tussáň súri de bhukhe the.

Assân mangde kurame diá dáriá, Lei chubáre baithe the.

Question. -- What morsel do you want?

A piece, or are you hungry for the whole?

Answer.—We want the wife of the Kuram, They took her and were sitting in the upper storey.

#### GENEROSITY.

Máli Sáli sakke bhaí, Thikria rí dál banáí; Chalande gidar tíre lae. Sálí balandá bhujjí khání; Málí balandá kání lissé há; Kání jo pujání.

Máli and Sáli were two own brothers, They cooked a dish of dál; They shot a running jackal with an arrow. Sálí says "Let's eat it fried;" Málí says "The one-eyed woman is ill; "Let's take it to the one-eyed woman."

Song on Rája Sansár Chand, Katoch Rájpút of Kángra, marrying a pretty Gaddí woman whom he saw herding her cows.-(Dharamsála)-

Gaddí cháre bakrián, Gaddín cháre gáe ; Gharrá bhaje saprián, Binná khádhe gáe. Her jawan ruía, Rája Gaddin biáhe. ľ

The Gaddí was grazing his goats; The Gaddí woman was grazing her cows; Her gharra was broken on the rocks, The cows ate the pad (worn between the head and the jar on it). Seeing her young face, The Rája married the Gaddin.

## JHÁNDAE SONG.

 He.—Pussi, pussi, Kajo russi, Láhúla giá manáná ; Chal pussi bhat khána. She.—Jáná juráná, Main nahín anda.

 Púní nahíň mukdí: Tand nahíň trutdi; Sas nahíň akhdi Jo pánie jo jáná. The ball of wool never comes to an end. The thread never breaks; My mother-in-law never says "Go for water."

## SAHNU MALI'S SONG.

Gaddí song-

- (1). Súhi, súhi pagri na láni,
- (2). Máliá Sáhnúá bo !
- (3). Manhú balale je lilárí,
- (4). Bati ri jhinjan mangání,
- (5). Mália Šahnúá bo !
- (6). Piți teri kateri khalrú?
- (7). Láliá Tundiá bo !
- (8). Pete kase-rá halarú?
- (9). Sáliá Tundiá bo!
- (10). Pete málí-ra halarú.
- (11). Sáliá Tundiá bo !
- (12). Kugti-rá teká na lená,
- (13). Máliá Sáhnúá bo !
- (14). Kálá, kálá, daglá na láná,
- (15). Máliá Sahnúá bo !
- (16). Manhú balale je há Tekadár,
- (17). Máliá Sahnúá bo !
  - (1). A red, red pagri do not put on,
- (2). Oh Málí Séhnú !

- (3), People will say you are a dyer;
- (4). Bring rice of Bhatí.
- (5). Oh Málí Sáhnú !
- (6). Oh, what is the skin on your back (full)?
- (7). Oh Lálá Tunčí !
- (8). In your womb whose child is there ?
- (9). Oh Sáli Tundí!
- (10). In your womb is Málí's child,
- (11). Oh Sálí Tundí.
- (12). Do not take the farm of Kugti,
- (13). Oh Málí Sáhnú !
- (14). A black, black coat do not put on,
- (15). Oh Málí Sáhnú !
- (16). People will say he is a farmer,
- (17). Oh Málí Sábnú!
- (Note.--(2), "Málí Sáhnú," (7), "Lálá Tundiá," (9) "Sálí Tundí." Málí, Lálá and Sálí are the names of the persons. Sáhnú and Tundí are the names of their castes.
  - (3), "Balale" is the 3rd person plural, future tense, from balna, "to say."

Het, s. f., remembrance, memory. "Abe het ai minjo," no remembrance came to me.

### THE WOOING OF SAMBHUÁ.

- 1. Sambhúá mérá múríyá dá nát!
- 2. Sambhúá dherá (<sup>2</sup>) hai lái. (<sup>1</sup>)
- 3. Dherá hoi lái bo merí ján !
- 4. Sambhúá dherá hoi láí.
- 5. Kanaka (<sup>8</sup>) ri roți, ghiú, dúl,
- 6. Sambhúá khái kari já,
- 7. Khái karí já bo meri ján !
- 8. Dohar dindi (4) bachhái,
- 9. Sambhúá soi kari (1) já,
- 10. Soi kari já meri jún!
- 11. Sambhúá soi kari já,
- 12. Kálá jíná (<sup>6</sup>), dorá (<sup>6</sup>) hachhí (<sup>7</sup>), choli (<sup>8</sup>)
- 13. Ammá merí ! Sombhúá áyá bo.
  - 1. Oh Sambhú, my first dancer !
  - 2. Oh Sambhú ! be slow (i.e., stay here).
  - 3. Be slow, my life!
- 4. Oh Sambhú be slow.
- 5. Bread of wheat, ghi and dúl,
- 6. Oh Sambhú ! ent before you go : (literally " having eaten go.")

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- 7. Eat before you go, my life !
- 8. I am spreading a shawl.
- 9. Oh Sambhú, sleep before you go : (literally " having slept go.")
- 10. Sleep before you go, my life !
- 11. Oh Sambhú ! sleep before you go,
- 12. (With) a black like girdle (and) a white frock,
- 13. Oh mother ! my Sambhú has come.

Notes.--(1). "Hoi lai," "khái kari," and "soi kari" are the conjunctive participles from the verbs "hona," "kháná" and "soná" respectively. In Hindi these forms would be "ho karke," "khá karke" and "so karke."

- (<sup>2</sup>). "Dhera" is the Hindi and Panjabi "dhirá," "slow," whence comes "dhiraj," "slowness," "dhirtái," "patience" and other derivatives.
- (<sup>3</sup>). "Kanaka." The short *a* at the end of "kanak" is added to nouns ending in a consonant to prepare them for receiving the case affix *rá*.
- (4). "Díndi" is the present participle feminine, from "dinda," "to give."
- (<sup>5</sup>). "Jina" is the pronominal adjective of similarity and corresponds to "jaisa" in Hindi.
- (<sup>6</sup>). " Porá" is the cord of black wool the Gaddí winds round his waist. Gaddí women also wear it, and the " dorá" is used as a binder by women after child-birth.
- (7). "Hachhi" is the feminine of the adjective "hachhá,"
   white."
- (<sup>6</sup>). "Choli" is the capacious woollen frock worn by Gaddí men and women. It is secured round the waist by the "dorá." The "cholí" comes down to the knees on men and to the ankles on women. The "dorá" round the waist makes a large body in the "cholá" above the waist. The body is called the "khokh," and forms a receptacle for very miscellaneous articles, such as a number of newly born lambs, bread, and wool for spinning.

THE GADDI GIBL'S CHOICE OF A HUSBAND.

- 1. Tá búdhrú jo na dení, chachúá, dení, chachúá.
- Sojre chúnde rand bholí ho.
- 3. Tá chákorá jo na dení, chachúá, dení, chachúá.
- 4. Hak pánde uthí jár de ho.
- 5, Tá dúr-desí jo na dení, chachúá, dení, chachúá.

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- Gorú chugánde jo deni ho. 6.
- Tá rojí jo na dení, chachúá, dení, chachúá. 7.
- 8. Saire chúnde rand gahlí ho.
- Bhede charande jo dení, chachúá, dení, chachúá. 9.
- Khokh bhare lelá más ho. 10.
- 11. Bhedá de puhála nú jo dení, chachúá, dení, chachúá.
- Píthi jo delá cholú ho. 12.
  - To an old man do not give me, father, do not give me, father. 1.
  - 2. I shall be a widow while my hair is (still) freshly done.
  - To a servant do not give me, father, do not give me, father. 3.
  - 4. A call comes—He gets up and goes (and leaves me).
  - To one who lives far away do not give me father, do not 5. give me, father.
  - To one who grazes a herd of cattle give me. 6.
  - To a sick man do not give me, father, do not give me, father. 7.
  - 8. I shall become a widow while my hair is (still) freshly done.
- To a herder of sheep give me, father, give me, father. <u></u>.
- He will bring me his pocket full of meat. 10.
- 11. To a tender of sheep give me, father, give me, father.
- 12. He will give me a frock for my back.

Notes .- In translating this song all the "tas" and all the "hos" should be omitted. They are without meaning.

"Jo" in the first, third, fifth, sixth, seventh, ninth, eleventh, and twelfth lines is the sign of the dative case.

"Chách" in Gádí and "cháchú" in the valleys of Kángra is a common word "father."

The meaning of the second and eighth lines is-"If you marry me to an old or a sick man I shall be a widow before my hair, which was done for my wedding, is ruffled," i.e., I shall be a widow before my wedding dress is worn out.

"Bholi" in the second line is the feminine third person singular future, from " bhona," " to be. "

"Gorú" in the sixth line means a herd of horned cattle.

"Khokh " in the tenth line is the body of a Gaddi's frock which is made into a pocket by the frock being tightly bound at the waist with a woollen rope called "dors," which passes several times round The "khokh" is used to carry miscellaneous articles. the waist. The wearer's dinner may be seen in it or even half a dozen new born lambs or kids.

"Gahli" in the eighth line is the feminine third person singular future, from "gáhná," " to go," " to become." "Lelá" in the tenth line is third person singular future, from

" lena," " to bring."

"Delá" in the twelfth line is third person singular future, from " dena, " " to give."

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"Cholú" is the woollen frock worn by both Gaddí men and women. It is made very capacious and loose, secured round the waist with a black woollen cord called "dorá." The "cholú" comes half down the thigh on men and to the ankles on women.

#### THE SONG OF RAJA GOPI CHAND.

- 1. Chanan chaukí bo rúpí jhaviyán Rájá Gopi Chand nahúe.
- 2. Tá amar bholá bo aghná chúndí bargá, thendi búnd kathon áe.
- 3. Tá chhaje bo baithí matá Nain Bantí nain bharí, bharí roe.
- 4. Tá phirí uparhún dekhe Rájá Gopi Chand, tá mátá Náin Bantí roe.
- 5. Tá kúní hí dití, mátá, tijo galián? Kúní bole mande bol,
- 6. Tá nahín bo dití, betá, minjo galián, na bole mande bol.
- 7. Tá kúní bo herú, mátú, mande nain? Us de nainán kadhán.
- 8. Tá na bo herú minjo, bețá, mande nain, na koi galián de.
- 9. Tá jaisi káyá, betá, terari taisi báwal tere.

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- 10. Tá jal bal matián ho gian húi bhasamán dherí.
- 11. Tá síkh den, mátá, meri páie umar käyá.
- 12. Tá jog dhiáyá Ráje Bharthari, páí umar káyá.
- 13. Tá jog bo dhiáná mo, mátá, meri páni umar káyá.
- 14. Tá jog bo dhiáyá Ráje Gopi Chande páí umar káyá.
  - 1. On a seat of sandal wood, with silver ewers, Rája Gopi Chand was bathing.
  - 2. "The heaven is clear like silver, whence do the cold drops come?"
  - 3. Sitting in the balcony his mother, Nain Banti, was weeping bitterly.
  - 4. Then again Rája Gopi Chandlooked up. His mother Nain Banti was weeping.
  - 5. He.--" Who gave, mother, to you abuse? Who spoke evil words?"
  - 6. She.—" Neither was given, son, to me abuse : nor were spoken evil words."
  - 7. He.—" Then who looked (at you), mother, with evil eyes ? His eyes I will tear out. "
  - 8. She.—" No one looked at me, son, with evil eyes, nor gave me abuse.
  - 9. ("It was thinking that) as your body is, so was your father's."
  - 10. "He was burned and became clay. He became a heap of ashes."
  - 11. He.-" Then give me advice, mother, make my body immortal."
  - 12. She.—" Rája Bharthari became an ascetic. He made his body immortal."

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- 13. He.-I should become an ascetic, mother. I should make my body immortal.
- 14. So Rája Gopi Chand became an ascetic. He made his body immortal.

#### A Song.

- 1. Nahlá dí tán Jati Lubáno jo chhalí, chhalí puchhdí.
- 2. Tá dublá tún kit gúne hoiá ho.

(A Jati of the valley chaffing, chaffing, a Lubána asks). She.-For what reason have you become lean?

- 3. Tá ek tán bo tútú, bo gorie, Jumúá dá hálá ho.
- 4. Tán dúje bo tán tútí balrí prít ho.

He.—First, oh fair one, the Jammu revenue is deficient (*i.e.*, I cannot pay the revenue). Secondly, the love of a girl is broken off (*i.e.*, I have been jilted).

- 5. Tán dhedu bálú deni hán Lubánúán.
- 6. Bharí dení hán Jammúán de hále ho.
- 7. Tán navví, navvi láni hán prit ho.
  - She.—Then you must sell your ear-rings and nose-ring, Lubána.

You must pay in full the Jammu revenue. Then you must get a new, new love.

- 8. Tá pahile bo tản hále bo Lubányán dhedú bálú dení hán.
- 9. Dúje hále math dí janjírí ho.

She.—Then at the first instalment, Lubáná, you must sell you ear-rings and nose-ring. And at the second instalment the forehead chain.

- 10. Tá ammá bajhún rahní hán, Lubánúán.
- 11. Bápú bájhún rahní hán.
- 12. Túdh bájhún dhún bo madhúni ho.

She.—Then you must remain without mother, Lubáná, You must remain without father. Without thee I am silent (*i.e.*, sad).

#### A Song.

Uchí, uchí marhiá merá srí thákar scndá ; Rádhá báü jhulándí hán.

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Rádhá — Tả daráníán mochrú, jithinián mochrú, Mú gorí mochrú nahí hán

Krishna. – Tá tú mat ruthín, ruthin merí Rukmaní Badhá; Rádhá jo mochrú le dena hán.

> On a high, high eminence my Lord God is sleeping ; Rádhá is fanning a breeze.

- Krishna.—Why are you pouting, pouting, my Rukmani Rádhá? Without you sleep does not come.
- Rádhá.—My younger sisters-in-law (have) shoes, my elder sisters-in-law (have) shoes;

I fair-complexioned (have) no shoes ;

(To me fair is no shoe, literally).

Krishna.-Do not pout, pout, my Rukmaní Rádhá !

To Rádhá I will give shoes.

(Literally-To Rádhá shoes are to give).

## A DITTY.

| Khasam marie   | ••• |       | If a husband die.     |
|----------------|-----|-------|-----------------------|
| Dal bal karie. |     |       |                       |
| Khind tute     |     | •••   | If a blanket is torn, |
| Ţali paie      | ••• | •••   | Put on a patch,       |
| Ambar tute     | ••• | · • • | If heaven splits,     |
| Kiá siná       |     | •••   | How can one sew it?   |
| Yár mare       |     | •••   | If a lover die,       |
| Kiá jiná       |     | •••   | How can one live?     |

Glossary of Words peculiar to the Kangra District.

Aj (aj), to-day.

Akhoka, adj., of this year, akho, as in "akhoki chhalí parok, chhalí thaun kharí hin," "this year's maize is (*lit.*, are) better than last year's."

Alá, a bird's nest. "Kas pakhrue da álá hai?" (Of what bird is that the nest?)

Alhía = Amaltás. (Lambagráon).

Ambar, sky.

Amri, bâráni land, cf. otar.

Andarwar, the court-yard of one or more houses. (Saloh).

Ang, relationship. (Shahpur). "Tahsildáre kane tis dá ang hai," (he is related to the Tahsildár).

Angujha, "not hidden," "known." (Saloh).

Ankhiá, trouble : "Mitr dusman ankhiá de waqat pachháne," (Friend and enemy are distinguished at the time of difficulty).

(Kángra).

Apan, but.

Ate, and.

Aunda, drain, a small drain cut across a field to drain it (= chalra).

Awan, awana, the court-yard of a house. (Hamirpur).

Bachálná, destroy, injure. (Kángra).

Badhna, to cut = Vadhna. (Bandla).

Bagar, a kind of grass, used for fodder and for ropes, Andropagon involutus and Ercophorum cornosum (Stewart); cf. gáo-dhan málá.

Bagur, s. f., air, wind. (Kutlehar).

Bahri, year.

G. Báhú, fore-quarter of a sheep. (Dharmsála).

Bái, a covered spring. "At the bái is the camp of Harjála." Also a woman's nipple. (Garli song).

\* Words to which G. is prefixed are peculiar to the Gadi dialect.

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Báj, ploughed land. (Kaloha).

Bajhi, " except."

Bajog, loss.

Bajrothi, hard, strong, used of hard, round stones in a riverbed as opposed to the soft sandstone of the cliffs; cf. kasarál. (Baragráon).

Bakhán, ease, comfort.

Balad, in the south of the District, *i. e.*, in Hamírpur and Dera, "balad" is used for bullock. In Pálampur, Kángra, and Núrpur dánd is used.

Balná, tell, speak.

Banj, excommunication. "Tujjo banj pá ditá" (J have excommunicated you).

Banná (=Samalu) Vitex negundo, Stewart, 166.

Baran, subst. masc. or verb, rain or to rain.

Baruthi, the court-yard of a house=dalán, cf. áwán. (Hamírpur)

Barsárá (spelt barsálá), rainy season.

Bása, a hamlet when high up on a hill.

Basáh, trust.

Básand, ploughed land-taraddadi. (Garlí).

Basdi, a hamlet. (Kutlehar).

Basinda, a hamlet.

Basúntí, Adhatoda Vasica, Stewart, 164.

Bat, a road.

Bat, s. f. egg.

G. Bát, wind, as in "bará bát jalurá" ('a great wind is blowing') Bat, upper millstone. Thali, under millstone. (Bhawarna. Batrá, 1½ times, of interest. (Kutlehar).

Datra, 15 times, or interest. (Eutenar)

Batti, a measure = two sers pakka.

Baurá, sown.

Behand, capable of cultivation (cf. behan).

Beis (=bido,) a willow. Stewart, 206-8.

Bekanú, a wether.

Berá, a cluster of houses, a hamlet. (Dhatwál).

Bețari, wife.

Bhájná, be broken, as in "had bháji-go," (the bone was broken) Bhakrári, a mallet for crushing clods.

Bhalel, fibre made from the bark of the dhaman tree. (Baragráon). Bhangan, the name of a fish : (Bhadpur), Biás. Bhanná, break. Bhanor, see darohlá. G. Bharakh, s. f. hunger. Bharauta, a clod-crusher. (Nadaunti). Bhedu, a sheep generally, also a ram. Bher, an ewe. Bheth, a precipice. (Alampur). "Bhitán dei dea," shut the door (lit., the planks, used here as a door). Bhukrán, a clod-crusher. (Dera). G. Biár, wind, as in " bari biár jaluri" (a great wind is blowing). Bido, see beis. Bij, lightning when it strikes (it is said), while bijli=the flash. Bilangan, a clothes' horse, a stick suspended by two ropes from the eaves of a house. Bir, a ridge between fields. (Daro). Birla, broad. Biul, see dhaman. Boglú, a Gaddi's purse of untanned skin. Bohar, the upper storey in an agriculturist's house. (Sujánpur). Búhlá, adj., low, depressed. (Nagrota). G. Bujazú, tinder. Bun, adv., below, as in "bun gich top" (go down and search). Chach, father. Chakona, square. Chalca=aunda, qu. vide. (Malán). Chamal, the plant which children call "Jack-in-the-box " (Garli). Chamba, Michelia campaca, Stewart, 5. Chamrá, skin (of cattle). Chámri, skin (of a man), Chatráti, mahser, cf. kakiáru. (Dera and Sujánpur). Chhalu, a lamb. Chharola, a stile.

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Chhiri, wood.

Chhopa, vaccination.

Chhú, the six-sided cactus.

Chhú-nali, water-cress.

Chhubba, the rope with which a load of grass is tied.

Chhumb, a stack of maize. (Kutlehar).

Chirindi, ? maple.

Chírná, to split.

Choi, a stream, a torrent.

Chorná, to strip, to skin.

Choü, a stream, —" Is jiminiá ki tre choü lagde, tap nau hans;" (to this land three streams are attached, there are nine months for the water). (Kángra).

Chunchal, a sort of blackbird with a blue tinted plumage in the sun.

Chura, parched rice.

G. Churiáti, hind quarter of a sheep. (Dharmsála).

Dah, courtship, as in "meri dah karni" (make love to me) Dadhuní, hive.

Dagúlá, grape-vine, and Dhura, grape.

Dand, tooth.

Danga, a stone wall.

Dangu, a scorpion.

Darohla, the multicomb, domesticated tree-bee; cf. bhanor, the unicomb, wild tree-bee.

Dera, crooked, as " deri lakri" (a crooked stick).

Dháman = Biúl (Gervia oppositifolia, Stewart, 27).

Dhak-dhak, little by little.

Dharírná, to drag.

Dherá, sun.

Dherá, day (=dhiárá).

Dhingará, Hind. arhar, a kind of pulse, Cajanus Indicus. (Rámgarb)

Dhiotra, a daughter's son.

Dhirna, to drag. (Chaumukha).

Dhíú, a tree with large leaves ; bears a fruit. Artocarpus integrifolia. (Lodhwan).

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## E. O'Brien-Glossary on Kangra District.

Dhiu, daughter.

Dhor, bullock.

Dhura, vide Dagula.

G. Díná, to cross (a pass, river, etc).

Dolna, to tremble.

**Dond, a wood-pigeon**.

Dote, to-morrow.

Dudhár, a hut in the cultivated land for the purpose of being near the fields.

Etki, this time, now.

Gá, cow.

Gabe, between.

Gadi, a sheaf of rice. (Saloh).

G. Gahná, to go.

Galáná, to speak.

Gáo-dhan málá, a rope of *bagar* grass and mango leaves suspended across the path to a cowshed to avert cattle-disease. (Baragráon).

Gappí, chatterer, flatterer, as in "Katochári di parol, Ghálakári jo ata, Gappiári jo Chole (*i. e.* cháwal "), (at the doorway ofa Katoch helpers get flour, flatterers get rice).—*Proverb*.

Gar, fort.

Garáká, a clap of thunder.

Garju, thunder.

Garna, Carissa diffusa, Stewart, 42, very like karaunda, which is Carissa carandas.

G. Gaülá, langur.

Ghálak, helper.

Ghálná, to help.

Ghálki, help.

G. Gharangar, saddle of a sheep. (Dharmsála).

Ghirini, the bird which makes bottle-shaped nests. (Saloh). Gharu, a precipice.

Ghuárá, a stack of rice-straw. Kángra.

Gid, the name of a fish, (Bhádpur), Biás.

Gidli, name of a fish. (Dera and Sujánpur).

God, an eel-like fish, Mestacemblus armatus. (Dera and Sujánpur).

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Gobrú, son.

Gorá, white, fair (of people).

Gorú, a herd of cattle, as in " tere goru kate tahar hin ?" (how many head are there in your herd ?)

Gotar, tribe (restricted to the descendants of one ancestor). Grs, town.

Gulu, a cob of maize from which the grain has been picked. Gulú, a cob of maize with the grains on. (Lodhwan),

Gurlu, the sweet viscous matter deposited by insects on the leaves and flowers of the mango in spring. (Rajhún).

G. Hachhá, white (of things and animals).

Hákhar, eye.

Hákhí, a glance.

"Duhí janie di hákhí lagí," (the glance of two lovers met) (Garli song).

Hand, ploughing the standing crop of rice "Hand Har mahine hunghe" (the rice will be ploughed in Har), cf. ur.

Hath, hand.

Hath-lopa, groping-karná, to grope. (Kángra).

Hatiárá, a wretch, a murderer.

Hera, shikar.

Hí, yesterday, as in "Hí aun kachari jo na go," (yesterday 1 to kutcherry did not go).

Hiún, snow.

Hiúnd, Hiúnda, winter, as "akhoke hiúndá manj tusso apní babrá bakrí kathi charni hin?" (where will you graze your sheep and goats this winter?) (Dharmsála).

Hiúnwát, snow-blindness.

Iji, mother.

It, a brick.

G. Jabará, an old man.

Jalárá and pallá, names of blights.

Jálú, when.

Janglá, yoke. (Bhawarna).

Jání-mání, Nolens volens.

Japhlota, croton tree, Jatropha curcas (Stewart's Punjab Plants, page 196). (Kángra).



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Jar, fever, as in "jar  $\underline{kh}$ ít ichhurá ha " (fever and ague have come).

G. Jeli, hard.

Jhauntú, axe.

Jhoțá, a male buffalo.

Jhumb=a stack of Indian corn. (Lambagráon). cf. chhumb. Jilha, dumb. (Kángra).

Junás, a wife. (Hamírpur).

Ká, crow, pl. ká (apparently, "mate ká hin") (there are many crows).

Kahlá, quarrel.

Kajo, why ? (Garli).

Kak, uncle, -i, aunt (*i.e.*, father's younger brother or his wife = patriá).

Kakiáru, mahser (=chatráți.) (Dera and Sujánpur).

Kakri, cucumber.

Kalbelán, the time between sunset and dark, evening.

Káma!, Rottlera tinctoria, Stewar<sup>†</sup>, 197. The red powder which forms on the capsules is called *kamílá* and is used for dye, worms and itch.

Kan, ear.

G. Kandá, a flock, (Dharmsála) as in "tussere kande manj ketari babrá bakri hin ?" (how many sheep aud goats are there in your flock) ?

Kandá, a thorn.

Kandi, water beetle.

Kandúhá, a hedgehog. (Baragráon).

Kaniár, (Kotla-Núrpur) = Amaltás, Stewart, 62.

Kanonian, parched Indian corn.

Kaphí, tinder (=bujszú).

Karál=Kachuar. (Kángra).

Karará, hard.

Karkará, iris, with broad leaves and purple bluish flowers (Triund, Dharmsála).

Kas, a stack of rice, square or oblong (Saloh); cf. kunu. (Saloh).

Kasákra, a crab. (Deblu in Mandi).

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Kasar, swarm.

Kasarál, soft, used of the soft sandstone which is rapidly worn into tracks by the feet of men or cattle (Baragráon); cf. kasari, and bajrothi.

Kasari, sick. (Baragráon).

Kasmal, Berberis aristata. Rasot is made of the root of the kasmal.

Kaur, a weed with a yellow flower (Lodhwan), observed in fields, generally in February and March.

Kawar-gandal, a plant of the aloe kiud, ? Aloe perfoliata, Stewart, 232.

Kendu, Deospyros montana, right bauk of Biás.

G. Khadna, call.

Khádú, a ram.

Khakhiar, the name of a fish, in Urdu Mabaser. (Bhadpui cn Biás).

Khaktú, a chip, splinter.

Khaláh, locust.

Khal-dará, resin of the chil (Pinus longi/olia), Darini.

Khalri, skin (of a sheep or goat).

G. Khandá, a flock.

Khars, good.

G. Kharál, hair.

Kharat, loss.

Khárí, basket.

Khareru, foot and mouth disease ; (also called bara-rog).

Khatta, sour.

Khauhrá, father-in-law.

G. Kheflá, a porcupine (=sehli).

Khilí, land fallen out of cultivation.

Khil-sál, rent for uncultivated land.

Khílá, cold.

Khikharna, to teach.

G. Khokhs, the receptacle above the dora.

Khuchná, to have sexual intercourse with.

Khuchíná, pass, verb, from foregoing.

Khuká, dry.



E. O'Brien-Glossary on Kangra District.

## [No. \$,

Khukh, puff-ball, Stewart, 268.

Khunni, name of a fish. (Biás).

Kí and jo, dative affixes, as in "Debi Chand here kí chalia," (Devi Chand went to shoot).

Kichh, something=kuchh.

Kírá, snake.

Kiu, common bean. (Lodhwan).

Kochbi, or kochpi (Dadh), a large landing net. (Kángra). G. Kod, a fair.

Kokrá, blue rock pigeon (Mundhi) ; (vide parara).

Kothlá, a clod-crusher. (Kángra).

Kuále, kuál, slope. (Bangar).

Kukrele-da-thá, a stack of maize stalks. (Saloh).

Kukriálá, maize-stalks without the cobs. (Lanj).

Kuli, girl.

Kunu, a stack of rice, round with a peaked top, cf. kas (Saloh).

Kundh, a large stack of wheat.

Kundla, a stack of grass.

Kupáh, cotton.

Kurká, name of a fish. (Dera and Sujánpur).

Kutār, dog.

Kut-phát, land cultivated after an interval of 2 or 3 years (Lanj).

Láhá, s. m., a landslip.

Lahar, land in which rice is not grown.

Lahr, a ram used for breeding.

Laira, Sawan.

Lak, waist, " Mera lak dole " (my waist swings,")

Láná, fine or smooth, as " píthá láná há " (the flour is fine).

Le, thistle. (Lodhwan).

Lindak, tail of cattle only. (Baragráon).

G. Linguní, a sheep's tail (cf. lingtí, in Kuluhi).

G. Lodhá, blood, of an animal.

Lo, light, as in " lo kar," (make a light).

Loda, inoculation.

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Lunj, wages for picking cotton. (Tíra in Kutlehar). Lunná, fall.

Mahe, buffalo.

Macb, a kind of toothless rake, made with a curved blade and a handle, for levelling muddy land.

Makhar, a swarm of bees.

Makhir, honey.

Maná, flying fox. (Sujánpur Tíra), =manchán. (Kotla).

Máran, Ulmus campestris. Stewart, 210. (Nagar in Kulu).

Masarín, potentilla. (Triund, Dharmsála).

Matá, too much, excess.

Megh, rain.

G. Molná, to meet, to be joined, to be procured, as in "minjo Núrpur manj ik dhár mola há," (I have got a range in Núrpur).

Mugi, a square receptacle made of mud and straw.

Múh, mouth.

Mund, head.

Múna<u>kh</u>, husband.

Ná, name.

Nacharohí, the fourth day.

Nagar, town.

Nakaraj, the day before the day before yesterday.

Nál, river.

Naund, a masonry tank as in "Thural ka naund."

Napílná, to wring, (clothes, &c.).

Nar, stone.

Nilri, blue jay. (Malán).

Nimán, slow.

Oban, an umbrella of leaves on a bamboo frame (=pohrú at Darini). (Hamírpur).

Osna, descend.

Otar, báráni land, cf. amri.

Páhú, tenant.

Pakhrúa, a bird.

Palla, see jalara.

Pánsará, Wendlandia exserta, Stewart, 17.

Pararu, a small st ack of wheat.



Paraj, the day before yesterday.

Paran, foot.

Parara, blue rock pigeon (Mundhi), vide Kokrá.

Pariála, *Erythrina arborescens*. A tree with large leaves, thorns, and knotted (?) bark. At Pundar in Núrpur I saw some wandering tribe making broad bands of this wood, which they made up in rolls and used for making the hoops of sieves.

Parohí, the day after to-morrow.

Parol, s. f., the gateway of a house.

Parora or Porora. Tree with long pointed glabrous leaves.

Patar, leaf.

Páthá, name of a fish. (Kángra).

Patriá, father's younger brother, and Patrer, -i, his children.

Patru, a water-plant with leaves like sorrel. (Lodhwan).

Per-bhárí, lit. heavy-footed, " pregnant."

Peru, a large basket consisting of a cylinder with narrowing mouth and a hole near the bottom for taking out the grain stored in it.

Phátú, a shingle for roofing (Darini).

Phúka, life, soul, as in "Parmesar ki kripa mere ghar vich chár phúke hain" (by the favour of God there are four persons in my house).

Piche, behind.

Pipal, red poppor. (Hamírpur).

Pirna, to get ready, as in "piro merí pálké," (get ready my palanquin). (Song).

Piúlá, yellow.

Prabhú, red bear (Kothi Kohar Sowar).

Pragra, light, as in " pragra pá," (make a light).

Prasan, thread as it is spun, *i.e.*, as from wool it becomes thread and is wound upon the spindle.

Pugna, to arrive.

Puthi, prep. and adv., up, above, upon, as in "puthi mat gache," (do not go up).

Rana, queen bee.

Ridhi, spur of a mountain. (Rihlu).

Rukh, tree.

Rurhu, s. m. fixed rent = P. Chakota.

Sahensar paen, Asparagus racemosus, Stewart, 233. (?=thousand root).

Sakhná, unladen, empty.

Sakoi, drought, "Is baras sakoi bari hai, hun asran thelu pa dene," cf. thelu.

Samalu, see Banná.

Sandh, a bull.

'Ghirthni rand ni, Jhotá sándh ni.' A Ghirthni cannot become a widow any more than a male buffalo can become a bull. – Proverb.

Sandh, a standing place in shade for cattle.

Sangrá, narrow.

Sapar, a cliff, or rock.

Sat, cold, cool.

Satha, always.

G. Sathri, a bundle of rice, cut but not yet tied. (Saloh).

Sauká, the state of having a rival wife. "Sauke par jáná main ne manzúr nahín kiá," (I did not consent to go on the condition of being a rival wife), Hansu vs. Mt. Koko.

Se, the functions of a barber, a shave. (Kángra).

Sehli, a porcupine. Punjabi, seh ; in Gádi, Kheilá. Sansk. ?

Sel, bark-fibre. (Baragráon).

Sik, lead.

Sinns, wet.

Sirigná, ground-bee.

Sít, (Gádi, khit) ague.

Sitak, bark of a tree. (Baragráon).

So, placenta.

Soa, slight rain. (Rajhún).

Sotna, to glean, sweep, or collect by sweeping. (Lanj).

Sukáman, a parasitical plant. I have only seen it growing on mango trees. Fleshy leaves. I cannot trace it in Stewart. (Nárpur).

Sunán, needle.

Sup, a winnowing basket of bamboo. Chhaj is a winnowing basket made of the *tili* of kána grass. Sup in Urdu, see Fallon, sub. voce.

Sutrájan, marigold. (Hamírpur). Tahar, a head (of cattle). (Dharmsála). Tálu, then.

)

Tan, a machán.

Tap, see under thelu.

Tarpandi, crooked (morally).

Tasíá, trouble, an noyance, (in Gádi, tasíá), as in "mainá tusso saite takrár kari-leo, tussa roz roz minjo kajo tasíá dinde há?" (I made a promise with you, why do you daily give me trouble?) (Dharmsála Gádi).

Taü, father's elder brother, fem. tei, and tair, -i, are bis children.

G. Taulá quick (also Jándri).

Taundi, s. f., hot season. (Garli).

Thainá, a deposit, "yih meri thainá hai," (this is to be kept for me).

Thák, s. f., an obstacle.

Thale, prep., below.

Thali, nether millstone. (Bhawarna).

Thelu, a flat piece of wood placed in a water-course to make the flow of water even in order to divide it equally amongst the smaller channels by means of pieces of wood (*tap*) fixed in the *thelu*.

Thil, snail.

Thula, thick.

G. Thúngár, parched grain.

Trámbá, copper.

Trikh, thirst.

Tuka, a cob of maize without the grain. (Lodhwan).

G. Tundi, sheep's trotter, cf. thudú in Kuluhi.

Undrar, a hamlet.

Unsán, a spindle held in the hand. (Dharmsála Gádí.)

Ur, planting rice by hand, "assan naden úr bhi-lei-chhadia," (we have planted the rice by hand in the marshes), cf. hand.

Usáhal, fr. osná, a descent.

Usina, ascend, as in "muhún thon nan usíndhá, matha matha ilán" (by me it cannot be ascended, I will come slowly). (Dharmsála Gádi) ; of. osná.

# A Contribution to the History of Western Bundelkhand.—By C. A. SILBEBRAD, I.C.S.; B.A., B.Sc.

#### [Received 7th May 1902. Read May, 1902.]

The following is a translation of the first third of a History and Geography of Bundelkhand by Diwan Bijhe Bahadur Masbut Singh, Bundela Thakur of Nanora in the Bansi pargana of the Lalitpur sub-division of the Jhansi district. The author is a leading durbari of the sub-division and one of the chief Bundelas of the Jhansi district, and a remarkably intelligent gentleman. He is the present head of the family of the Jakhlon Thakurs whose fortunes he traces. The tract with which this portion of the history is concerned is the Lalitpur subdivision, the Orchha state and the Chanderi pargana of Gwalior, together with some of the neighbouring territories. It gives a fairly clear and concise account of the rise of the Bundelas and their doings in this tract. The history goes on to give an account of Panna and the rest of Eastern Bundelkhand but this portion is little more than an abstract of the Chatharprakash, a translation of the whole of which forms the bulk of Pogson's 'Bundelas.' The second part of the book is entitled 'Geography' and gives brief descriptions of the states and districts of Bandelkhand, containing little or nothing new; and also lists of the animal, vegetable and mineral products of Bundelkhand, which are interesting as giving the local names of many things that are quite unknown to Watts' ' Dictionary of Economic Products,' and which I hope to be able to identify.

The portion, the translation of which forms this paper gives an account of some events of, it is true, mainly local interest, but which I do not remember having seen elsewhere related. The notes added will, I think, enable most of the localities to be identified. All dates are according to the Christian era unless otherwise specified.

The first translation was done by Khwāja Muhammad Zafar, Sub-Deputy Inspector of Schools at Lalitpur, and my acknowledgments are due to him for the performance of a tedious task. This translation was revised by myself, and I have discussed doubtful points with the author.

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# A Portion of the History of Bundelkhand.—By DIWAN BIJHE BAHADUR MAZBŪT SINGH.

Several works on the history of Bundelkhand are already in existence. But not one of them can claim to be so comprehensive as to contain a sketch treating of the geography of the whole of Bundelkhand as well as showing the revenue and population of all parts of the province.

Nor do any of the existing works contain genealogical tables showing the names of all the Bundela Rajas and Chiefs and tracing their lines of descent and exhibiting the causes which led to the separation of the various families from the original stock.

Nor again is there any information forthcoming as to the extent of the entire province; and as to what portions of it are occupied by the Bandelas and by the Chiefs of other tribes, respectively, and what portions are under the direct control of the British Government.

Lastly, other historians have on many doubtful points, contented themselves with the suggestions of their own ingenuity.

It was with a view to supply these wants that at the instance of Major John Liston, Deputy Commissioner of Lalitpur, I Diwān Bijhe Bahādur Mazbūt Singh, Bundela Thākur and Jāgirdār, undertook to prepare this history of Bundelkhand with the assistance of Mr. Quinton, Commissioner of Jhansi, and the Political Agent, Bundelkhand States. It is intended that the book shall summarize all the narratives of events chronicled by writers of various generations best acquainted with the Bundela families. Abstracts and extracts from the following works will also find place in the work :--" History of Iudia" (Hindi); "Vishan Purana" (Hindi); "Kawi Paria" (Hindi); Varsingh Charitra (Hindi); Chhatra Prakāsh (Hindi); "Bundel Charitra" (Hindi); "Geography of the Central Provinces"; Krishn Narain's "History" (Urdu); "Wākiāt-i-Bundelkhand" (Urdu); "Imperial Gazetteer of Bundelkhand."

Besides this I am a native of this part of the Provinces and am myself closely connected with the Bundela dynasties, and have received my legends from my ancestors, and have seen many old writings and inscriptions on buildings, etc.; my account may therefore be relied on.

In India as the majority of men know Hindi I have compiled this work in that language that it may be the more easily read. It is divided into two parts (1) History, and (2) Geography.

Bundelkhand is the portion of India bounded on the north by the Jamna, the south by the Narbada, the east by the Tons and the west by the Kāli Sindh. During the period when Raja Udhisthira was reigning in India, Sisupāl was the Raja of Bundelkhand and the country was then called Chen-Desh. For several generations Sisupāl and his

sons ruled over it; but later it fell into the hands of Raja Karam of Oudh. This Raja erected a building at Kalinjar and removed the city of Chanderi<sup>1</sup> from its site in the time of Sisupāl to the foot of Geru hill and dug a tank called Parmeshwar. He built a fort at Geru hill and made it a military station. At a distance of about seven miles from modern Chanderi ruins of temples, etc., still indicate the site of the Chanderi of the time of Sisupāl these are known as Burhi (old) Chanderi.<sup>1</sup> In a history edited by Munshi Krishn Narain it is mentioned that the kingdom of Raja Karam extended from Oudh to Mau Mandsowar<sup>2</sup> and for several generations the Rajas of this dynasty ruled over it. Somi, the last Raja of this line, left his kingdom and fled to Kachh and Bhuj, Jamna Deva-succeeded him and became king of Chen-desh. There is a legend that the marks of the hoofs of his horse are to be seen on stones in Chandpur,<sup>8</sup> Chandrapur<sup>4</sup> and Sironj<sup>5</sup>; the only foundation of truth probably being that he was Raja of this part of the country and made Chanderi his capital. He claimed supremacy over all the countries from the Jamna to the Narbada, and from the Chambal to the Tons. About this time Bhārat Raja of Ujjain conquered Central India, but soon after becoming an ascetic was succeeded by his brother Bikram, who from that date assumed as one of his titles, Raja of Chendesh. He was a powerful and wise monarch and is said to have ruled over the whole of India. Chen-desh was the centre of his domain, and his kingdom was known as Madh-desh or the Central region.

It is clear from the Vishnu-purana that Näg-banshi Kshattris were ruling over the land from the Jamna to the Narbada and from the Chambal to the Ken. But it is impossible to determine the exact dates of their reigns. The "Imperial Gazetteer" gives the following dates :---

| 0 Raja Bhim-nagar. | 100 Brahapat.    |  |
|--------------------|------------------|--|
| 25 Kharjor.        | 125 Nagendra.    |  |
| 50 Dharamwats.     | 150 Biaghranaga. |  |
| 75 Asank danamar.  | 175 Basunag.6    |  |

1 In Gwalior 18 miles west of Lalispur. Old Chanderi is eight miles N. W. of modern Chanderi and its numerous ruins are almost buried in jungle.

<sup>8</sup> Near Ujjain.

<sup>8</sup> An almost deserted village in pargana Balabehat (district Jhansi) 16 miles S.S.-W. of Lalitpur), There are numerous ruins of Chandel buildings (temples, horses, etc.,) for an account of which see Babu Chandar Mukarji's "Report on the Antiquities of Lalitpur."

• In pargana Dogaha (district Sagar), 20 miles N.-E. of Sagar.

<sup>6</sup> A considerable town in Tonk, about 32 miles S. of W. of Bina Railway Station on the I.M. Bailway.

<sup>6</sup> The names in this list are spelt slightly differently. (See "Gazetteer" N.-W.P., Vol. I, p. 3).

In 215 Devanāg, the last King of this dynasty, ascended the throne. In his reign Toraman, the general of Raja Gopāl, who was a Kachhwāha by race invaded Eran<sup>1</sup> in 243 and conquered all countries from Bhopal to Eran. Toraman's son subdued Gwalior at the same time. In 358 Devanag abdicated and went to Narwar<sup>2</sup> and was succeeded by Sursen, who was a descendant of Toraman. He (Sursen) built the famous fort of Gwalior in 285.

An ascetic told him that his descendants would govern the kingdom for 400 generations. Gwalior has been a capital since that time. The descendants of Sursen ruled over Central India for a long time. In 593 the Raja of Kanouj invaded the kingdom and conquered the whole except the cities of Gwalior, Chanderi and Narwar. But the Kachhwāhas soon recovered their authority. But in the meantime Thakur Chandh succeeded in seizing several villages near Mahoba.<sup>8</sup> The descendants of this Thakur were called the Chandels.

The 84th and last Raja of the Kachhwāha dynasty was Tej-karan whom Dhandeva the historian calls Krishn Narain. About 933 the Parihar dynasty rose into importance and invaded and conquered Gwalior. Krishn Narain or Tej-karan left the capital and went to Dhūndhār,<sup>4</sup> but his descendants removed their residence to Narwar and Indurki.<sup>5</sup>

The first King of the Parihar dynasty was Vajradama, who subdued Central India. Meanwhile the Chandels of Mahoba were gaining power. Vajradama was followed successively by Raja Kirat, Raja Bhūvanpāl I and Raja Padhpāl. In 1093 Bhūvanpāl II succeeded Mahipāl who, in 1161 was succeeded by Raja Madhusudan, but even before his accession the Chandels had got possession of the whole kingdom except Gwalior, which after his death fell into the hands of Tomar Thakurs in 1232. The events connected with Chandib and his descendants will now be chronicled. It has already been mentioned that during the reign of the Kachhwāha Thakurs Chandib got possession of Mahoba and Kanonj, and while Kings of the Parihar dynasty were reigning his descendants over-ran the whole kingdom.

After the death of Chandib his son Wakipat<sup>6</sup> assumed the title of

<sup>2</sup> In Gwalior on the Sindh river 40 miles S.-W. of Gwalior.

<sup>8</sup> One of the chief seats of Chandel rale in Hamirpur district.

4 Near Jaipur.

<sup>5</sup> 32 miles W. N.-W. of Jalann in Gwalior State.

<sup>6</sup> Probably identical with Vakpati.

<sup>&</sup>lt;sup>1</sup> In Sagar district (pargana Khemlasa), on the Bina river, 6 miles S. of Bina Railway Station (I.M. Railway). (For an account of the ruins here see Cunningham's Archeeological Reports).

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Raja and annexed Ajegarh. His son Bijai conquered Chatharpur,<sup>1</sup> Mau,<sup>9</sup> Chauderi, etc., and was succeeded in order by Jaso-Dharm Deva, Bijaipāl, and Kirat-Varam. The last King Kirat-Varam, wrested Panna and Shahgarh<sup>8</sup> from the Gonds. After KIrat-Varam, Jaya-Varma, Solakshan and Prithur-Varma ascended the throne in succession. In 1118 Govind-Chand succeeded Prithwi-Varma and subdued the whole of Central India subverting the Parihar dynasty which at that time retained possession of Gwalior and a few other villages only.

Nar-Varam succeeded in 1163 and was followed in 1167 by Parmol. In 1209 Narhar succeeded, in whose reign the Gonds, Lodhis, Ahirs and others rose and divided the kingdom, and the dynasty was consequently enfeebled. The last King was Bhoj-Varam, grandson of Parmol, whose reign was a continual struggle with rebels, by whom he was sometimes defeated and whom he at others subdued. During his nominal reign Bir Bundela rose into power and got possession of Man,<sup>6</sup> Mahoni,<sup>6</sup> Kalpi and Kalinjar. He repeatedly defeated Bhoj-Varma and finally overthrew the Chandel dynasty.

Several buildings of the time of the Chandels are still found in Kalinjar, Mahoba, Deogarh<sup>e</sup> and Madanpür<sup>7</sup> bearing inscriptions in Hindi.

After the overthrow of the Chandel dynasty that of the Bundelas was established. It is said that long before this Gharwar Kshattris, who were Suraj-bansis by descent ruled in Kāshi (Benares). The last King of Gharwār was Chait-karan whom Krishn-narain calls Birbhadr. In the Bundel-Charita it is stated that the total revenue of his kingdom was one crore of rupees.

Birbhadr had five sons :--(1) Ishri, also called  $R\bar{a}j$  Singh, (2) Hansrāj, (3) Mohan, (4) Mān, and (5) Jagdās or Pancham. The last was his father's favourite. In his lifetime the Raja divided his kingdom among his five sons giving half to the four elder, and half to

<sup>1</sup> Probably the capital of the State in the Bundelkhand Agency of that name.

<sup>2</sup> Probably the town 10 miles N.-W. of Chatharpur.

<sup>8</sup> A town in the Sagar district (pargana Shahgarh) 40 miles N.-E. of Sagar.

• Said by the author to be probably Mau-Ranipur in the pargana of that name (district Jhansi), 40 miles E. of Jhansi, but I am rather inclined to believe it is the Mau mentioned in note 14.

<sup>5</sup> As to this place I am not sure, there is a Mahoni in Gwalior adjoining a Mau in Jalaun district on the Pahoj 23 miles S.-W. of Jalaun Town.

<sup>6</sup> In pargana Balabehat (district Jhansi) 19 miles S.-W. of Lalitpur, on the Betwa, for an account of the ruins, see Cunningham's Archæological Reports and Baba Chandar Mukarji's Report on the Antiquities of Lalitpur.

<sup>7</sup> In pargana Maraura (district Jhansi) 86 miles S.-E. of Lalitpur-for an account of its Antiquities, see the works quoted in note.

Pancham, a division which not unnaturally caused ill-feeling between Pancham and his elder brothers, with the result that on the death of the Raja in 1170 Pancham was expelled and his dominion equally divided among the four brothers.

On the loss of his kingdom and wealth, he was in great disfress, and he went to Bindhachal.<sup>1</sup> where on the first of Sāwan Sambat 1228 (1171 A.D.) in order to gain a victory over his brothers and recover his kingdom he practised the most severe asceticism in honour of the goddess Bindhāsni or Durga. For several days he took neither food nor water and continually chanted prayers; but without avail, on the eighth day, however, he sat within a circle of fire and on the ninth day standing on one leg prayed to the goddess, but still without avail. On the last day he resolved to offer his head to the goddess as a sacrifice. but before this consummation was reached the goddess cried: "Thou wilt enjoy the happiness of a King." Pancham asked her to appear before him and to give him some sign that he would defeat his brothers and regain his kingdom. The goddess gave no answer. Pancham resumed his religious chants, took his sword and tried to cut his throat, but the goddess thereupon appeared and cried : "Victory, Victory, Thou wilt be victorious and become Raja of a kingdom, and thy descendants will rule over Central India." When Pancham was about to behead himself and the goddess saw that a drop of blood fell from the cut to the ground, she cried : "Budit or Bundels (a drop)" and blessed him saying that his descendants would be called Bundelas hereafter, and then disappeared, Pancham collected a force, defeated his brothers, seized the kingdom and made Benares his Eastern Capital. The descendants of Pancham's four brothers are still called Gahrwär Thakurs.

Pancham was blessed with a son and according to the direction of the goddess, named him Bir-Bundela. It is said that during the reign of Bir Bundela, Shahāb-ud-din Ghori invaded India and decisively defeated Jai Chand Raja of Kanouj about 1195. Munshi Krishn Narain mentions in his book that in compliance with the orders of his father Bir Bundela fought a battle with Tatār Khan Afghan, in which 72 officers of the Khan's force were wounded; Bir Bundela himself shot 300 men with his own bow. This defeat actually stopped the Khan's further advance. It may therefore be inferred that it was in the time of Pancham that Shahāb-ud-dīn Ghori conquered India.

In 1214 Bir Bundela ascended the throne on the death of his father, who had reigned 49 years. He was able to extend his sway over several neighbouring kingdoms to the West, North and South. In 1231 he

1 The famous shrine five miles West of Mirzapur.

subdued Kälpi and Mahoni and after defeating Bhoj Varam Chandel aunexed Kalinjar. Bir Bundela gained a complete victory over the Gharwārs of Marra<sup>1</sup> and extended his conquests to Rewa, Oudh and the Doab. These conquests are related in detail in the Bundela Charitr.

He was succeeded by Karan-Tirth, who married the daughter of Nimrāna Chauhan. Karan-Tirth obtained his name in consequence of having built a tirth or temple, which is still esteemed one of the famous temples of Benares. He offered Kashi or Benares to the Brahmans. His son Arjun Pāl came to Mahoni in 1313; and Toar of Gwalior gave him his daughter in marriage. From the Kabpriya and Kharsingh-Charitr it appears that he was the first Raja who made Mahoni his capital and ruled over Kalpi, Mau, Mahoni, and Kalinjar. He had three sons: -(1) Birbal, (2) Sohanpāl, and (3) Dayapāl The Imperial Gazetteer<sup>2</sup> states that in 1263 Raja Arjunpal sent his son Schanpal to Kateragarh<sup>8</sup> and that the fort was surrendered to him; on his death he was succeeded by his eldest son Birbal. He gave a few villages to Sohanpal who had married the daughter of a Dhandera of Ganeshkhera. Sohanpal not being satisfied with his share of the inheritance went to Nāga the Kanghar Raja of Kurār,<sup>5</sup> with 45 sepoys and 18 sowars. In the Bundel-Charitr it is related that he asked Naga to help him in taking his share from his brother; this Naga promised to do on condition that he would eat, drink, and inter-marry with him; Sohanpāl was very much enraged at this suggestion and was about to leave Kurär, but hearing of his intention Nāga formed a plot to forcibly detain him, and compel him to accede to these proposals. Sohanpal hearing thereof fled from the court, and went to Mukatman Chauhan, who was a descendant of Dhandera Deva and commanded 4,000 men on behalf of Nāga. Him he requested to assist him against his brother, but Mukatman refused saying that he would remain neutral.

After this Sohanpāl, leaving his small force behind, went alone successively to the Salingars, Chauhāns and Kachhwāhas, and told his story to them. But none of them offered to assist him. However a Panwār Thakur, named Panpal, Jāgirdar of Karhara,<sup>6</sup> offered assistance and the two conspired to remove Raja Nāga by stratugem from his

1 This the author says is in the Mirsapur district near its Western border.

<sup>8</sup> Gazetteer of N.-W.P. I, 20.

<sup>8</sup> Better known as Katera, the seat of a jagirdar and titular Raja in pargana Man (Jhansi district) 26 miles S.-E. of Jhansi.

- In Gwalior 16 miles W. of Jhansi.
- 5 In Orchha 20 miles E. N.-E. of Jhansi.

In Gwalior 27 miles W. of Jhansi.

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kingdom, which was worth 13 lakhs. It was agreed that Sohanpā should go to Kurār and pretend to accept Raja Nāga's conditions of inter-marriage, etc., and invite the Raja and his relatives to his house. Sohanpāl went to Kurār and did as agreed on. After a time Raja Nāga, with his brothers and ministers, came to Sohanpāl's house, whereupon Panpal arrived with 300 Kshattris, and as soon as Raja Nāga and his followers had sat down to eat Panpal Panwār and Sohanpāl Bundela fell upon and slaughtered all the Kanghār ohiefs, and immediately seized the fort of Kurār.

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In this way on Wednesday the 2nd of Kartik Sambat 1345 (1288 A.D.) Sohanpäl became Raja of Kurär, and appointed Paupal and Mukatman as ministers. He said to them :-- "As no Kshattri in the time of my distress gave me help except you no other save yourselves shall marry into my family."

Accordingly he gave his daughter in marriage to Panpal and as dowry a village named Itaura<sup>3</sup>, to his younger brother Dayapāl as a jagir of one lakb. From this time the Kshattris were divided into three different classes of Bundelas, Panwārs and Dhanderas. The total revenue of the whole Bundela territory was 26 lakhs of which half was possessed by Bir-Bal and the rest by Sohanpāl.

Sohanpāl had two sous, Sahjendra and Rām, of whom the elder Sahjendra succeeded him in 1299. He also had two sons, Nānak Deva and Saunak Deva, of whom the former succeeded in 1326. His sons were Prithwi Rāj and Indra Rāj of whom Prithwi Rāj succeeded in 1360. Prithwi Rāj framed good laws for his subjects, subdued the Bundelas of Birbal's and Dayapāl's families and performed a "yag" named Maheshri<sup>8</sup> in Kurār. He was blessed with two sons, Madnipāl<sup>4</sup> and Kisāb. In 1400 Madnipāl succeeded and left three sons named Arjun Deva, Māl and Bhimsen. On his death in 1443 the eldest Arjun Deva succeeded. The "Kabpriya" speaks highly of him as having had read

<sup>1</sup> The account of the origin of the Bundelas and the overthrow of the Kanghar Raja of Kurär here given, is very different from, and much more creditable to the Bundelas than that given in the Gazetteer of the N.-W.P. (I, 20), whence it would appear that the overthrow of the Kanghars preceded the origin of the Bundelas. The account given in Crookes "Tribes and Castes" (II, 163) is intermediate between the two, but would seem to be certainly incorrect as regards the mention of a Raja of Panna, as Panna was first made the seat of a Raja by Chatharsal about 1675 A.D. At this time that part of the country was in the hands of the Gonds.

<sup>\$</sup> In pargana Jhansi, 18 miles E. N.-E. of Jhansi.

<sup>3</sup> A sacrifice of goats to Mahadeo after certain preliminary offerings and ceremonies.

• According to the Gazetteer N.-W.P. (I. 21). Ram Chand was the son of Prithwi Raj and Madnipal his son.

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to him the four Vedas and the religious Puranas, and offered 16 Mahadan ' to Brahmans. He had two sons named Malkhan and Satrail. In 1475 Malkhan succeeded his father and showed himself a powerful and wise prince. In 1482 he fought with Bahlol Lodi,<sup>3</sup> and dying in 1507 left eight sons, Partäp-Rudr, Såh, Jait, Jogajit, Baryär Singh, Bhao Singh, Kharageen, and Birchand, of whom the eldest Partap-Rudr succeeded to the throne. He annexed part of the kingdom of Ibrahim Lodi<sup>8</sup> yielding a revenue of 1<sup>1</sup>/<sub>4</sub> crores, Ibrahim being engaged in a struggle with Båbar. On Båbar's becoming emperor and returning in 1514 \* after conquering the kingdom of Medni Rai Raja of Chanderi he only succeeded in recovering Kalpi from Partap-Rudr, and appointed him to rule the rest of his kingdom. On the 13th Baisakh 1587 Sambat (1531 A.D.) he founded the city of Orchha, and made it a military station. He was a famous hunter, and it is related that after reiguing 24 years he met his death in this way; one day while hunting the jungles near Orchha he heard a cow cry out in pain, and going to see what had happened found that it had been seized by a lion. He fired but missed, and finding it impossible to reload, attacked the animal with a sword and succeeded in killing it, but not before it had so mauled him that he only survived long enough to reach his palace (1531).

He left nine sous by his three wives, of whom the eldest Bhārti-Chand succeeded him. The second brother Madhkur Sāh, lived with him and assisted in the administration. The third brother Udiajīt got Mahoba. The fourth Amān Dās received Patori,<sup>6</sup> the fifth Prāgdās obtained Haraspur,<sup>6</sup> the sixth Durgādās, Durgapur,<sup>7</sup> the seventh Chandaudās, Katera,<sup>8</sup> the eighth Ghansāmdās, Maigawan,<sup>9</sup> and Bhārat-Bai, Kurār.

Baja Bhartichand built the beautiful temple of Chaturbhuj-Bhagwān in Orchha.

<sup>1</sup> The author tells me this is any great gift. A Mähadän of gold is not less than 32 mäshas, (i.e. 214 grs. or about £2-0-0); an elephant, a maiden, a complete house, all one's possessions, are other examples.—(This would seem to imply a very much higher value of gold than at present).

<sup>8</sup> Reigned 1451-1488.

8 1517-1526.

4 1514 Keaue (History of India I. 102) gives 1527 A.D. for this event.

<sup>5</sup> The author caunot tell me where this is and thinks it probably an error.

<sup>6</sup> In Pargana Bansi (Jhansi district) 16 miles N. of Lalitpur. There are here two large Chandel tanks, (one ruined).

7 In Datia, 6 miles S. of Datia.

<sup>8</sup> See note 23.

9 In Orchha 11 miles S.-E. of Mau-Ränipur,

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In 1544 Sher Shāh,<sup>1</sup> having temporarily defeated Humayun and thus become Emperor of Delhi, attempted the conquest of Bundelkhand. In accordance with the order of the Raja, Madhkur Sāh with 5000 selected cavalry attacked the enemy's forces, and though he suffered heavily succeeded in getting possession of the enemy's standard, and so steadily harassed his army that he was forced to retire.

The Emperor Sher Shāh beseiged Kalinjar and annexed the neighbouring country. During the siege the Imperial Magazine caught fire and exploded, killing the Emperor. In 1545 his son Selim Shāh ascended the throne and in his reign Bhartichand took Kalinjar. This success of the Bundela Chief Selim Shāh was compelled to overlook as he was at that time engaged in a contest with Humayun and also with his own brothers. He had indeed once sent a small detachment from Gwalior, which was compelled to retire without even crossing the Sindh. Bhartichand extended his kingdom till it stretched from the Tons to the Sindh and from the Jamna to the Narbada, and yielded a revenue of two crores. From about this time this part of India was known as Bundelkhand—the country of the Bundelas.

In 1551 Bhartichand performed Bājpai-yug <sup>\$</sup> at Tongāran.<sup>\$</sup> As he had no son he was succeeded on his death in 1552 by his next brother Madhkur Sāh, who proved a wise and pious prince, learned in the Shastras and laws. He was specially a follower of the two-handed Narsingh-Bhagwan whom he worshipped morning and evening. He was also a man of great valour and simplicity, often riding out unattended. His love of justice was such that however important the question at issue might be he would not utter judgment without first consulting the code of Manu. The Delhi Emperor attacked him on several occasions but without success; these attacks were during Akbar's minority conducted with insufficient forces; when he however succeeded to full power he sent a large and well-equipped army under Niamat Khān. The Raja advanced as far as Baroni<sup>4</sup> and there met the Imperial army, a severe engagement followed resulting in the retirement of Niamat Khān. Akbar then sent Ali Kūli Khān with a second force. To meet this Madhkur Säh despatched his eldest son

<sup>1</sup> Assumed the Empire of Delhi 1543, and was killed at the siege of Kalinjar 1545.

<sup>2</sup> This the author tells me may be offered to any deity; it lasts for 21 days during each of which various coremonies and offerings are performed culminating in a sacrifice of 21 goats on the 21st day and the gift of various things including seven elephants.

- <sup>8</sup> Close to Orohha.
- In Datiā, 5 miles W. of Datiā town.

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Rām Sāh with an army of 36,000. The armies met at Bhanrer,<sup>1</sup> and Ali Kuli Khan was repulsed and so much harassed that he retired leaving borses and equipage which fell to the Bundelas. His father was so pleased at the generalship displayed by Ram Sah in this campaign that he increased his powers. Akbar made a third attempt to subdue the Bundelas, sending Jam Küli Khän who however was likewise defeated at Chelra.<sup>3</sup> After this battle the Raja appointed his second son Horal-Rao Commander-in-Chief, and his third son Dulhar-Rao governor of the fort and treasury of Orchha. His fourth and fifth sons Ratansen and Indarjit respectively he made ministers of Rām Såh. His four remaining sons Saikh Partāb Rao, Har Singh Deva, Birsingh Deva and Satrjit being still quite young continued their education. In 1568 another unsuccessful invasion of Bundelkhand was made by Sheikh Kuli Khan, a general of Akbar. But in 1574 the Emperor sent Seiyid Muhammad Bāra at the head of a larger and better equipped force to conquer Bundelkhand. This the Raja's eldest son advanced to meet and a battle was fought on the Sindh, in which Rāmsāh was defeated and compelled to retire to Orchha followed by the Imperial army. The Raja himself then marched out of Orchha and another battle was fought, wherein in spite of the valour displayed by the Raja, and his sons and brothers, the Bundelas suffered defeat. The Raja's brother Aman Das was killed, and Orchha surrendered. This disaster was followed by the loss of all his territory from Gwalior to Sironj. But nevertheless he succeeded in recovering his power to some extent, and in driving the Muhammadans from Orchha aud Karhara<sup>8</sup> and making himself master of Bundelkhand proper. Akbar was not content with his partial success, and in 1633 sent a large army under Sadik Khān by way of Narwar. Madh Kur Sāh collected 50,000 men and marched towards Karhara when he engaged the invaders. In the battle the Bundelas were defeated with the loss of 7,000 of their number, and Horal Rao son of the Raja was among the slain, and his brothers Prägdäs and Durgadäs were wounded. As a result Orchha was recovered by the Emperor. Previous to this invasion the Kachhwāha Governors of Rampura<sup>4</sup> and Lahir<sup>5</sup> had made an alliance with Sadik Khan; but in spite of this the Raja laid siege to Orchha in 1636 in the course of which siege his son Satrjit was killed. Raja Biharimal's brother Raja Raj Singh Kachhwaha was at this time in

<sup>5</sup> In Pargana Indurkhi (Gwalior) 25 miles W. of Jalaun;

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<sup>1</sup> In Gwalior, 19 miles E. N.- E. of Datia town.

<sup>&</sup>lt;sup>\$</sup> Said to be in Datia State.

<sup>&</sup>lt;sup>8</sup> See note 26.

In Pargana Mādhogarh (Jalaun district) 18 miles N.-W. of Jalaun.

the camp of Sadik Khan. The Emperor sent an order through him re-instating Madhkur-Sāh, who thus returned to Orchha and governed the country again. But this policy of lenience proved a failure as regards the interests of the Emperor and soon after Akbar was obliged to send another expedition under Seivid Raju Bara Khan.' The Raja despatched Indarjit to meet it and he succeeded in defeating the Muhammadans who were driven back. In 1584 Prince Mirza Murād himself, the Khān Khānām Wazir, Raja Durga, Raja Jagannāth and Raja Rām Chandar renewed the attack. It is related in Firishta's history that when the Prince arrived near Orchha, Madhkur Sāh opposed him at the head of 50,000 men. The engagement which followed lasted 9 hours, and in it 5,000 Bundelas and 1,200 Sawars were killed and Rām Sāh, Ratan Sen and Indarjit, three sons of the Raja wounded. His whole force fled but the Baja refused to retire, and with 300 horsemen armour-clad, charged the left flank of the Imperial army where Murād was commanding in person. He succeeded in wounding Murād so that he fell from his horse and lost his arms; Madhkur Sāh said to him "Why are you lying on the ground? Get up, take your weapons and fight." The prince answered, "Why do you not kill me now you have the chance ?" The Raja replied, "I am a Kshattri, it is contrary to the custom of Kshattris to kill a weaponless man." Murād was so struck at this that he exclaimed, "I pardon you." The Raja said "I will make peace if you promise to restore my kingdom to me." Murād replied. "Such part of the kingdom as has been in your possession up to this date shall be restored to you and a sanad to this effect shall be given to you, but you will have to accept conditions." The battle then ceased; and the Raja entertained the Emperor's army for several days and showed great hospitality. Murad gave him a sanad bestowing on him the kingdom on condition that he should assist the Emperor with 7,000 Sawars when the latter required them for war. After this the Imperial army advanced towards the Deccan to invade the dominions of Chand Bibi (generally known as Chand Sultana).<sup>8</sup>

Madhkur Sāh entrusted his kingdom to his eldest son Rām Sāh, and to his grandson Bhupāl Rao he gave Chainpur<sup>8</sup> in Jagir; the latter was the son of Horal Rao the Raja's second son, who had been killed in battle. Bhupāl Rao founded Bhupāl which was called after his name.

1 Doubtless identical with the 'Seivid Raja of Barhā, of Gazetteer, N.-W P. I, 556.

<sup>2</sup> Of Ahmadnagar.

<sup>8</sup> Said by the author to be in Bhupal near the Narbada, S. of Sägar town and S. E of Bhupal.

Dulhar Rao the third son of Madhkur Sāh received Shivapuri<sup>1</sup> in Jagir; the favourite son Ratan Sen, Ghor-Jhámai<sup>2</sup> the fifth Indarjit, Nad-kachuwa;<sup>5</sup> the sixth Partāp Rao, Kūnch; the seventh Har Singh, Bhasneh;<sup>6</sup> the eighth Birsingh Deva Baroni.<sup>6</sup> Madhkur Sāh during his whole life only once visited the Emperor, on all other occasions on which he was summoned he sent his son Ratn Sen with 7,000 Sawars. His total revenue was two crores and ten lakhs. After a reign of 38 years he died in 1583 <sup>6</sup> having attained the age of 80 years.

At the time of his death his eldest son Rām Sāh was at the court of the Emperor at Delhi; the Emperor after condoling with him bestowed upon him the kingdom of his deceased father. The other members of the family who considered that they had rights to parts of the dominion brought forward their claims and two years passed before these were all settled. Finally such of them as had acquired their rights under Madhkur Sāh were continued them and their names and lands separately entered in the records. They were not entirely independent however, as the Raja enjoyed certain rights of supremacy as head of the family. The names of the sub-divisions are as follows :---(1) of the Kachhwāhas Rampūra (2) Raghubansis Patua Kachai <sup>7</sup> (3) Gonds Bilahra<sup>3</sup> (4) Dāngis, Garh Pahra<sup>9</sup> (5) Panwars Konahra, (6) Gonds Barī;<sup>10</sup> besides these grants he gave to the Dhanderas Sāhabād,<sup>11</sup> and to the Gantum clan Garhakota.<sup>13</sup> Lastly Bihat, <sup>13</sup> Beona <sup>14</sup> Kathera and Mahewa<sup>15</sup> were given in jagir to four Bundela Thakurs.

Besides these estates of the brothers of the Raja and the four jagirs just mentioned, Kālpi and Bhanrer were given to Abdullah and Hasan Khān respectively. They were jointly bound to provide a total force of 7,000 Sawars for the Emperor in time of war. There were in this way altogether 22 sharers in the kingdom.

1 Better known at Sipri.

<sup>2</sup> In Sagar district, some 27 miles S. E. of Sagar.

<sup>8</sup> In Gwalior 5 miles N.-E. of Pichhar and 27 S.-W. of Jhansi.

• In pargana Garotka (Jhansi district) 36 miles E. N.-E. of Jhansi.

<sup>5</sup> See note 42.

<sup>6</sup> The Gazetteer N.-W.P. (I, 556) gives 1593.

7 The state in the Baghelkhand Agency S.-E. of Kalinjar.

<sup>8</sup> In Sägar district, 18 miles S. of Sägar.

• In Sagar district 6 miles N. N.-W. of Sagar.

<sup>10</sup> Said by the author to be near Cheripur (note 50).

Il Said by the author to be between Guna and Narwar, in Gwalior.

18 In Sägar district, 26 miles E. of Sägar.

<sup>13</sup> The Jagir of that name on the borders of Jhansi and Hamirpur, (not of course as bounded at present).

14 Said to be in Jalaun district.

<sup>15</sup> Said by the author to be near Kalinjar.

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In 1592 Birsingh Deva raised an insurrection, in which he was assisted by Indarjit and Partab Rao. They wrested Bhanger and Pawain<sup>1</sup> from Hasan Khān, Karhara and Berchha<sup>\$</sup> from Harduar Panwar, and Irichh<sup>8</sup> from Abdullah. On learning of this Akbar despatched Daulat Khān, whom Rām Sāh joined. The Raja reduced Birsingh Deva to terms and brought him to Daulat Khān, and then returned to Orchha, while Daulat Khān went on to the Deccan accompanied by Birsingh Deva and the Rajā's eldest son Sangrām Sāh. But before long Birsingh Deva on the pretence of hunting returned to his home in Baroni against the orders of the Imperial Commander. Daulat Khān marched after him, but on seeing that he was assisted by Bhupāl Rao, Partāp Rao and Indarjit, abandoned the idea. Shortly after this Akbar arrived at Narwar by way of Gwalior, and directed Raja Rām Sāh to either present before himself Birsingh Deva and Indarjīt, who had in the interval stormed the forts of Narwar and Gwalior, or pauish them severely himself. Råm Säh with the aid of the Kachhwähas and Pathans went to Baroni, and after a few days' resistance succeeded in expelling Birsingh Deva thence. In this contest however Jugrup Kachhwāha a man of some note, was As soon as Ram Sah withdrew Birsingh Deva recovered killed. possession of Baroni. But he very soon left it finding it not a safe place for him so long as Akbar and Rām Sāh were his enemies. He accordingly went to Prayag to see Selim (known as Jehangir after his accession). He was a son of Akbar and at that time Subadar of Allahabad and in revolt against his father. Selim received him with great favour and directed him to murder Abul-Fazl, who was then returning from the Deccan. This he accordingly did, and on the 9th Kātik 1660<sup>4</sup> (A.D. 1603) killed the famous minister, midway between Narwar and Antri.<sup>5</sup> Akbar was greatly enraged at the murder, and sent many chiefs under Tirpur Kshattri with a powerful force to capture Birsingh Deva; this force he ordered Sangrām Sah the son of Rām Sāh to accompany. Birsiugh Deva was besieged in the fort of Irichh, but after a few days' resistance, fled by night and went to Prayag. Selim received him with great favour and promised to make him Raja of the whole of Bundelkhand as soon as he should ascend the throne. Birsingh Deva lived for a short time in Prayag, and then returned to Bundelkhand, were joining with Sangram Sah he openly

- 1 Probably in Gwalior on the Sindh river 15 miles N.-W. of Datia.
- <sup>2</sup> Probably in Gwalior between Pachhor, Narwar and Bharwar.
- <sup>5</sup> In pargana Motli (Jhansi district) 39 miles N.-E. of Jhansi.
- Keane (History of India, I, 141) gives 13th August 1602.
- <sup>5</sup> 11 miles S.-E. of Gwalior.

revolted and expelled Hasan Khān from Bhanger and Kharag Rao from Lachura.<sup>1</sup> The brother of Kharag Rao, who had been killed at the time of his expulsion, appealed to the Emperor, who ordered Indariit to proceed with a powerful army, promising to give him the whole of Bundelkhand if he should defeat Birsingh Deva and Ram-Sāk. Indarjit begged that the Emperor himself should accompany the force, and would have obeyed the Imperial order, but that he was unwilling to ruin his eldest brother and make himself master of the kingdom. The Emperor dismissed him and sent Tirpur Kshattri with a large army to Orchha. When the general reached Gwalior, Raj Singh and Rām Singh Kachhwāhās, the Bhadoriya Raja,<sup>\$</sup> the Chanhan Raja and the Jāte<sup>8</sup> joined his camp. As soon as the army reached Datia, Hasan Khān and Khwāja Abdullah joined it. In 1602 on the bank of the Betwa close to Orchha the conflict took place. The battle lasted several days between the Bundelss under Sangram Sah, Indarjit Partap Rao and Birsingh Deva ou the one side, and the Imperial army on the other. Sangrām Sāh was killed, but the Bundelas were victorious. Inderjit being specially distinguished for his gallant conduct in taking the enemy's stundards. Raj Singh Kuchhwāha who was with Tirpur's force, was wounded and captured by Birsingh Deva, but Rām Sāh sent him back to the Emperor's army with respect and honour. Tirpur Kshattri, after remaining quiet a few days at Bharer, collected a fresh army there; but in the meantime Akbar had died and Selim had succeeded assuming the title of Jehängir. In 1604 + he summoned Birsingh Deva, who with Bhārat Sāh the grandson of Rām Sāh and Indarjit went to Delhi. The Emperor bestowed on him the title of Maharaja and gave him a sanad appointing him ruler of the whole of Bundelkhand. The three returned to Irichh and Birsingh Deva offered his companions his condolences on the loss of their After this Indarjit went on an expedition with the dominions. Emperor's forces, and told Ram Sah of Birsingh Deva's appointment; he straightway went to Irichh where Birsingh Dewa received him as he had always hitherto done; but a misunderstanding soon occurred and Ram Sah returned to Orchha and both parties prepared for war. By the order of Jehängir, Khwäja Abdullah Jägirdär of Kalpi, and Haidar Khän came to the assistance of Birsingh Deva, who was also joined by Partap Rão and the

- <sup>2</sup> The ancestor of the present Bhadoria Rajā of the Agra district.
- <sup>8</sup> Of Gohad, ancestors of the present Baja of Dholpür.
- This is obviously a mistake, as Jahangir succeeded in 1605.

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<sup>1</sup> Now known as Ghat Lachura, 11 miles N.-E. of Man-Ranipur in Jhansi district.

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Bundelas of Kathera. Birsingh Deva marched towards Orchha where he was opposed by Rām Sāh's forces under Bhupāl Rāo and Indarjīt. In the battle that ensued Indarjit was wounded and the army of Orchha struck with panic fled. Bhupāl Rao with a small detachment forced his way into the fort, and continued to assist Ram Sah. Negotiations were opened and Ram Sah agreed to meet Khwaja Abdullah, who, however, treacherously made him prisoner and carried him to Delhi, where the Emperor received him with respect, but in order to stop further quarrels kept him captive for several years. By 16041 Bitsingh Deva was supreme throughout the whole of Bundelkhand having reduced all the 22 chiefs who had participated in the kingdom. In 1608 after the Emperor had firmly established his power he released Råm Såh and bestowed on him the Jägir of Bär<sup>2</sup> yielding a revenue of three lakhs. The kingdom of Birsingh Deva contained 81 parganas and 12,500 villages; the total revenue was two crores. According to the Bundelkhand-Charite it was bounded on the North by the Jamna, on the South by the Narbada, on the West by the Chambal, and on the East by the Tons.

Birsingh Deva was well acquainted with the Dharam Shāshtra and laws generally. He was mindful of the sin he had committed in usurping his brother's kingdom, and feeling great remorse, in penitence made nine pilgrimages, and offered innumerable sacrifices. In Bindraban alone he presented 81 maunds of gold, a gift remembered to the present day. At Datia he built a grand palace at a cost of Rs. 36,90,980, which is still a notable structure. On one occasion by order of the Emperor, he attacked and overcame the Rajas of Rewa and Narwar. In 1613 he erected a temple in Bindraban at a cost of 80 lakhs. He performed the Taraian Birt,<sup>8</sup> and listened for seven days to the recitation of the Maha-purana. He was famed for his strict justice; in this connection it is told of him that one day his eldest son Jagat Deva when hunting, allowed his hound to kill a Brahma-chari or hermit. On hearing thereof the Raja summoned his son to him, and put him to death for having caused the death of an innocent devotee.

He constructed the famous tanks of Bir Sāgar<sup>4</sup> and Barwa Sāgar<sup>5</sup>

1 Almost certainly wrong, see preceding note.

<sup>3</sup> In pargana Bänpür (Jhansi district) 17 miles N.-E. of Lalitpur. The ruins of a fort and palace and several Muhbaras still mark this former seat of rule.

<sup>8</sup> This is a penauce which consists in fasting by day for a month, only eating when the stars are visible.

4 In Orchha, 12 miles S. S.-E. of Orchha town.

<sup>5</sup> In Jhansi district, 12 miles E. of Jhausi.

and many others—in all 52. About 1682 when Shāhjahān ascended the throne of Delhi, Birsingh Deva again revolted. The Emperor's forces defeated him and captured Orchha. He then with 10,000 Sawars commenced a guerilla war in which he was well seconded by Jujhār Singh and his own sons and brothers. After a year of this the Emperor restored the kingdom to the Bundelas, but offered it to Jujhār Singh. The Raja had ten sons :—(1) Har Deva, (2) Pāhar Singh, (3) Bhagwān Rao, (4) Kishor Singh, (5) Tursi Dās, (6) Rai Singh, (7) Krishn Dās, (8) Partāp Singh, (9) Mādho Singh, and (10) Chandar Bhān. He gave them respectively jagirs as follows :—(1) Taraoli,<sup>1</sup> (2) Tehri,<sup>3</sup> (3) Khargāpur,<sup>8</sup> (4) Semra,<sup>4</sup> (5) Palera,<sup>5</sup> (6) Baragaon,<sup>6</sup> (7) Chirgaon,<sup>7</sup> (8) Kūnch, (9) Jaitpur,<sup>3</sup> (10) Kakarbai.<sup>9</sup> Each jagir was of such a size as to yield a revenue of one lakh.

In the spring of 1627 Birsingh Deva died and was succeeded by Juihar Singh, who distrusted all the Bundelas and made some alterations and reductions in the Jagirs. His brother Chandarbhan entered the service of the Emperor and was apppointed a Commander of 809 sawars and 1,500 foot. About 1631 Jujhār Singh in accordance with an order of the Emperor, went to Choragarh to fight on his behalf, and left his brother Har Deva at Orchha in charge of the kingdom. On his return, suspecting an intrigue between his wife and Har Deva, he questioned her, the Rani replied, "as he is your brother I love him, there is nothing else between us." The Raja said, "if you are true obey me and poison him." The Rani obeyed, but felt such remorse that she poisoned herself too. The Raja mourned her death deeply, and in 1632 performed the ceremony of Agmarshanyug to purge himself of the sin of murdering his brother. Munshi Harnarain, an historian, says that Har Deva after his death, appeared as a spirit and revealed to many that Jujhār Singh had poisoned him to prevent his succession, being himself childless. As soon as Shāhjahān heard of this he issued a proclamation directing altars to be erected in honour of Har Deva and the dethronement of Jujhār Singh. Bāki Khān was directed to enforce this order and went to Orchha with a strong force, but was defeated

1 In Orchha, 27 miles E. N.-E. of Jhansi.

<sup>8</sup> The present capital of Orchha state.

<sup>8</sup> In Orchha 20 miles E of Tehri.

• In Orchha, 14 miles S. of Orchha.

<sup>5</sup> In Orchha, 18 miles S.-E. of Mau-Rānipur.

<sup>6</sup> In pargana Jhansi, nine miles E. N.-E. of Jhansi.

1 In pargana Moth (Jhansi district) 17 miles N.-E. of Jhansi.

<sup>8</sup> The former state of that name west of Mahoba now part of the Hamirpur district.

9 In pargasa Garotha (Jhansi district) 50 miles N.-E. of Jhansi.

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and returned to Delhi. In 1638 Shāhjahān despatched Muhabbat Khān from Agra, Khān Jahān,<sup>1</sup> from the Deccan and Khwāja Abdullah from Prayag. These three armies converged on Orchha, and a severe conflict took place in which Salivahan the son of Champat Rai Jagirdar of Mahewa was killed. In the night after the battle when both armies were in their camps, Champat Rai took with him a body of Jujhar Singh's troops and unexpectedly fell upon the enemy. Baki Khān and Shabar Khān the general were both killed, but in spite of the loss of their leaders the Imperial army gallantly opposed the Raja's forces and succeeded in separating the Raja from his allies; finally Jujhar Singh was completely defeated and fied to the Deccan, but fell ill and died in Gondwäna. Champat Rai continued a guerilla warfare. while the Imperial army returned to Delhi, and in 1635 the whole of Bundelkhand except Datia and Chanderi was annexed. For six years no one was appointed Raja of Orchha, and during the anarchy consequent thereon Champat Rai continued to ravage the country; he collected many of the late Raja's army, possessed himself of Orchha, plundered Sironj, captured Bhilsa and defeated the Sübadar of Ujjain. In short he ravaged the country from Jhansi to Mahewa. In 1633 Shāhjahān sent an expedition commanded by Muhammad Shāh, Wali Bahādur Khān, Nausher Khān, and Abdullah Khān. Champat Rai was besieged in the fort of Orchha, and after a gallant resistance was defeated and his brother Pähar Singh was sent for from Dhamoni<sup>3</sup> and set up in his place. He was not however entrusted with the whole of Bundelkhand, but only with such a portion of it as yielded a revenue of 60 lakhs, for Datia and Chanderi had long before this been annexed and made over to other rulers. Besides these two, several other small states were retained. Champat Rai succeeded however in escaping from the besieged fort, and continued his ravages as before.

Pāhar Singh had two sons Sujān Singh and Indraman. In 1651 Sujān Singh was installed as Raja on the death of his father. The famons tank at Arjār<sup>3</sup> was constructed in his time. The Imperial Gazetteer states that the town of Rānipūr,<sup>4</sup> which is close to Mau, was

<sup>8</sup> In Sägar district, 25 miles N. of Sägar. This was later the most important seat of Muhammadan rule in South-Western Bundelkhand, and there are fine ruins of a very extensive fort externally somewhat of the style of that at Agra, and also raises of a large walled town. The place now is almost entirely uninhabited and over-grown with jungle.

<sup>8</sup> Half in Jhansi and half in Orchha, 18 miles E. S.-E. of Jhansi.

• According to the Gazetteer it was founded by his mother, the Rani Hiradeva

<sup>&</sup>lt;sup>1</sup> There would seem to be some mistake here, as the only Khan Jahan apparently known at this time was Khan Jahan Lodi, who revolted but was defeated and killed in 1631.

built by him. He left no heir, and the kingdom passed to his brother Indraman. The latter died after three years in 1673, and his son Jaswant Singh succeeded him, but died in 1686, leaving the throne to his son Bhagwant Singh a minor. The widow of Indraman, Rani Raj Kunwar, was appointed regent. In 1688, Bhagwant Singh died childless; and accordingly Aghota Singh the son of Bijhe Sāh was summoned from Baragaon in 1689 to be adopted. He was sent to Aurangeeb who approved the adoption and solemnly nominated him. Aghota Singh was a brave, hardworking and wise prince. About 1708 Bālaji 1 Marhātta invaded Bundelkhand and defeated Kamar Ali Khan who had been despatched by the Emperor to oppose him. Thereupon Shāhjāhan\* ordered Aghota Singh to march against the Marhatta leader. The latter was slain in the first battle, and the army returned to the Deccan. In 1715 Aghota Singh constructed the statue of a man in gold, and presented it to Brahmans. He was then blessed with a child who was named Prithwi Singh. On one occasion Aghota Singh accompanied Bahādur Shāh the Mughal Emperor, to the Panjāb and distinguished himself by gaining a victory over the Sikhs.<sup>4</sup> In his time the power of the Mughal Emperors began to decline, and the Marhättas rose into importance, and repeated attacks were made by them on Delhi. In 1735 Malhar Rao Holkar with 100,000 men marched from the Deccan. Aghota Singh with the Raja of Datia and other of his relatives opposed him, and a disastrous conflict took place near Jhansi. On both sides the killed and wounded numbered about 9,000, but Malhar Rao and his chiefs were slain.<sup>4</sup> and in consequence the army was disheartened and returned. Two months after this conflict in the middle of 1735, Aghota Singh died and was succeeded by Prithwi Singh. During his reign all his brothers and relatives turned against him and Rajendragir who had charge of the fort of Jhansi revolted and took possession of Jhansi and Moth.<sup>5</sup> On the other side the country was ravaged by Gujars and Kangars. On the death of Prithwi Singh he was succeeded by his grandson Sanwant Singh. In 1748 Sahū<sup>6</sup> sent an expedition under

in 1678 (Gazetteer N.-W. P., I. 573). There is an inexplicable error in the date somewhere.

<sup>1</sup> Presumably, Balaji Visvanāth first Peshwa; it is probably meant that an invasion was made at his orders.

<sup>2</sup> This is obviously a mistake, and probably Bahādur Shāh (1707-12) is meant.

This was probably the expedition commanded by Munian Khan (1710).

<sup>6</sup> This is arrogating too much to the Bundelas, Malhär Rao Holkar was not slain, but was merely checked in 1736 by Saādat Ali Khān Sūbadar of Oudh.

<sup>5</sup> The N.-W. pargana of Jhansi district.

<sup>6</sup> Maharaja of the Marhattas. This event happened in 1743. According to Gasetteer N.-W. P. (I. 80).

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Naru Shankar, who defeated the Raja and overthrew his kingdom. At that time the total revenue was Rs. 24,54,264. One-third of the territory including the seven parganas of Pachhor, Karhara, Moth, Garotha, Garwai,<sup>1</sup> Man, and Jhansi, was annexed by the Marhättas. The revenue of the ceded portions amounted to eight lakhs. The Marhattas made Jhansi the head-quarters of the territory and Sheo Rao Bhao was apppointed Governor. The Sanyāsis<sup>1</sup> were totally overthrown. Sanwant Singh ruled for eight years over the remaining part of his kingdom, and then died without heirs. His widow 8 adopted Hati Singh, a grandson of Aghota Singh. In 1767 a guarrel occurred between Hati Singh and the Rani. The army and the ministers siding with the Rani, Hati Singh fled to Datia, where Indarjit received him with respect and gave him a handsome allowance. The Rani after taking Tehri, adopted Pajan Singh the son of Lachman Singh; but in 1772 quarrelled with him also, and Pajan Singh went to Tehri and lived there for one year and a half, while the Rani continued to rule the country. In 1774 disgusted with this world, Pajan Singh retired to Chitrakot, and devoted himself to religious exercises. The Rani in the same year then installed Man Singh the son of Amresh of Mohangarh.<sup>4</sup> These continual changes in the selection of a ruler gave Vishn Singh<sup>5</sup> the opportunity to annex Amra<sup>6</sup> and other villages yielding a total revenue of one lakh. The Rānī quarrelled with Man Singh as she had done with his predecessors; and he retired to Rajgarh. In 1775 Kunwar Bhartichand, the great grandson of Aghota Singh, was adopted. After ruling three years he fell ill and died in 1778. During his illness he had solemnly nominated his brother Bikramajit as his successor. The state was now rapidly declining, there was great disunion between the various members of the family and the treasury was empty. The troops refused to perform their duties owing to their pay being in arrears. Bikramajit sold pargana Barwa Sāgar to the Sūbadar of Jhansi, and was thus able to pay the troops. He overthrew the Rajas of Taraoli, Mohangarh,

1 Now forms the N.-E. part of pargana Jhansi in the Jhansi district.

<sup>3</sup> The author elsewhere states that when Birsingh Deva founded Jhansi fort he garrisoned it with Sanyāsis, whose successors these will probably have been. As to militant Sanyāsis in Bundelkhand, compare the fact (quoted in Crooke's "Castes," IV. 276) that 2,000 Sanyāsis attacked Col. Goddard in his march through Bundelkhand (1778).

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Named Mahendra Rani.

In Orohha, 20 miles N.-W. of Tehri.

<sup>5</sup> Then Raja of Samthar.

• In Samthar, 26 miles N.-E. of Jhansi.

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Semra, Palera, and Jīron,<sup>1</sup> and annexed their territories. He distributed large sums to sink wells and dig tanks. On one occasion he engaged the Gwalior troops, and so utterly defeated them that it is said that not a man survived to tell the tale. After a long and successful reign of 56 years he died at Tehri leaving no heir.<sup>3</sup> In 1834 his brother Mathura Dās was installed, who was succeeded in 1840 by his adopted son Sujān Singh, who also died heirless. In 1853 Hamīr Singh was adopted and placed on the throne. He was a debauchee and left no heir; and consequently on his death his brother Partāp Singh succeeded, and is still reigning.

### Jagir of Khanya-Dána.

The second son of Aghota Singh the Raja of Orchha, was Amresh. He with the help of the Peshwa's force obtained Mohangarh<sup>3</sup> as his share in 1735. He had three sons, Maharāj Deva, Mān Singh, and Nannegir; Man Singh was adopted by Mahendra Rani,<sup>4</sup> and ascended the throne of Orchha, while Māharāj Deva succeeded to Mohangarh, and a jagir worth one lakh. After the death of Man Singh his successor Bikramajit attempted to crush Māharāj Deva, who, leaving Mohangarh went to Khanya Dana. His son and successor Jawahir Singh negotiated a treaty with the British Government in 1808. He had two sons Pirthipal and Bijhe Bahadur. In 1844 Mardan Singh Raja of Bānpūr<sup>5</sup> made Pirthipāl Singh a Raja in his kingdom; but he was not recognised by the British Government or the Raja of Orchha. Pirthipāl Singh was succeeded by Gopāl Singh in 1868. He left two sons named Chitthar Singh and Mardan Singh. In 1869 Gopāl Singh died and was succeeded by Chitthar Singh. In 1877 at a grand Durbar held in honour of the Prince of Wales the title of Rao Bāja was conferred on him. Chitthar Singh is still in possession of Khanya Dāna, but has lately changed his name to Durga Singh.

### Datia State.

In 1625 Mäharäja Birsingh Deva seated Jujhär Singh on the throne of Orchha, and distributed jagirs to his remaining ten sons, so

1 In Orchha, 17 miles S. of Orchha town.

<sup>2</sup> Raja Bikramajit entered into treaty with the British in 1812.

<sup>8</sup> See note 102. Elsewhere the author states that Aghota Singh bestowed this jagir on his son in 1703, and that the Peshwa assisted him against Bikramajit of Orchba and gave him a sanad for Khanya-Dana in 1751, the two accounts are not necessarily discrepant.

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<sup>1</sup> Widow of Sānwant Singh Raja of Orchha,

<sup>5</sup> See p. 87.

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that each son got an estate of one lakh as his share. At that time Bhagwan Rai with two of his sons was at the Emperor's Court as the representative of his father Birsingh Deva. His other two sons Dhurmangad and Sakhat Singh were at Orchha; Birsingh Deva entrusted the list in which the share of Bhagwan Rai was recorded to Dhurmangad. This Dhurmangad was very brave and warlike. It is related of him that after swimning a river he met a lion on the bank which he killed with one blow of his fist. As soon as he received the list showing to what estate his father was entitled he went to Palera 1 and properly administered the country. Har Deva and his nine brothers also took possession of their respective jagirs. When Bhagwan Rai heard of this he returned with the Emperor's permission to Orchha. and asked his father saying, "What order have you for me?" The old Raja replied "Nothing, I have already distributed the kingdom among your brothers and you and given a separate list showing each one's share. The details of your share are with your son Dhurmangad Singh, go and take it from him." Bhagwan Rai not liking to quarrel with his son, asked his father to grant him the grand palace of Datia, four courtiers and 300 horsemen. The Raja did so, and gave him the palace and with it the secret treasure buried there. In 1626 Bhagwan Rai went to Datia with his two sons, Prithwi Rāj and Sabhkaran. On the death of Birsingh Deva he possessed himself of Baroni, which had been allotted for the maintenance of his father. He ruled 21 years and died in 1647. But the Gazetteer (of N.-W.P., I. p. 557) states that in 1640 Bhagwan Rai and his brother Beni Das were killed by a Rajput in battle. In any case on the death of Bhagwan Rai his two sons Prithwi Raj and Sabhkaran went to Delhi, and petitioned the Emperor to continue to them their father's jagir. But the Emperor was then engaged in despatching an expedition to the west, and could not attend to them. Accordingly the two brothers accompanied the expedition so as to please the Emperor by their valour and gallantry. At the very beginning of the battle the two young warriors sharged the enemy at the head of 800 horse. The Imperial forces supporting them vigorously finally gained a complete victory. Prithwi Rāj was killed in the battle and Sabhkaran being wounded returned to Delhi. The Emperor was so pleased with his conduct that he offered him a jagir of 12 lakhs out of the kingdom of Orchha. On hearing this the widow of Prithwi Raj came to the capital, and begged the Emperor to do something for her son Chatharsal. The Emperor willingly offered Chatharsal Baroni with a revenue of Rs. 1,25,000 in jagir. From that time Sabhkaran was a jagirdar of 12 lakhs and Chatharsal

1 See note 84,

of 11. Sabhkaran fought 22 battles for the Emperor, and died in 1684. He was succeeded by Rao Dalpat Rao, who built a fort in Datia. In-1707 there was a quarrel between Azam Shah and Bahadur Shah. On Azam's side were only 22 Rajas, while all the remaining Rajas of India were on that of Bahādur Shāh. The latter marched from Delhi to attack Agra. Rao Dalpat Rao was in command <sup>\$</sup> of Asam's Shāh's force and advanced with the 22 Rajas to oppose the enemy's army. The battle took place at Jaju a village close to Agra. The struggle was severe and each side lost 21,000 men, amongst whom was Rao Dalpat Rao, who had bravely maintained his position till his death. It is said that one day he had shot 400 arrows. He left three sons Bhartichand, Rām Chandar, and Prithwi Singh. Of these Bao Bhartichand succeeded his father in 1708. He died in 1711 and was succeeded by his younger brother Ram Chandar. He was very strong and well-versed in astronomy and literature. At the time of his succession his son Rām Singh was a full grown man. The Raja quarrelled with him and exiled him. He accordingly took up his abode in Chanderi. During his exile he maintained himself by selling his furniture, ornaments, etc. After a short time he was blessed with a son whom he named Guman Singh. He, at the age of twenty, had a son named Indarjit. The horoscope of this child was sent to Ram Chandar, who was then at Delhi. He scrutinized it and predicted that all the forefathers of the child would die within the year, but that the child would be pious and prosperous. Ramohandar paid little heed to the prediction, and threw the horoscope into the fire. But the misfortunes foretold soon began to appear. Not long after this he was ordered by the Emperor Muhammad Shah<sup>s</sup> to subdue Bhagwan Rao Khichhi. Ram Chandar offered 108 cows and a maund of gold to Brahmans and set out with 1,000 horse. He was then 95 years of age but still wore his helmet and armour and could strike a mighty blow. The battle took place at Korajahānābad. Just before the battle he was reinforced by 7,000 men from Datia. Riding on his elephant he commenced the attack, and succeeded in driving the enemy from the field to the gate of the fortress, but being strack by a bullet fell dead in the howdah. A Thakur who was seated by him had the presence of mind and courage to put on the helmet of the deceased Raja, and ordered the army to advance. The troops stormed the fort and set up their standard on it. Bhagwan Rao Khichhi with a handfal of men escaped by another road. After the victory the army

**1719-1748** 

<sup>&</sup>lt;sup>1</sup> The quarrel as to the succession on the death of Aurangseb.

<sup>&</sup>lt;sup>2</sup> The commander was Zulfikar, commander of the army of the Deccan.

performed the funeral ceremonies and returned to Delhi. Bahadur Shah greatly mourned the death of the old warrior, and sent for his son to bestow on him a khilat and suitable rewards, but he was unable to come on account of illness. Within two years Ram Singh and Gumān Singh also died, and the Rāni of Rām Singh in 1746 installed Indarjit who was then a minor. She constructed the Sita tal in Datia. The Mughal power was now rapidly declining. In 1748 Nāru-Shankar<sup>1</sup> marched from the Deccan to invade Bundelkhand. The Raja was still but a mere child and the Mahratta general forced his ministers to surrender him pargana Bhanger. Pargana Alampur? was at the same time given to Holkar. About 1819 Indarjit bestowed a jagir of 11 lakhs in Samthar on Debi Dhar Rājdhar, and at the same time much alms; he also heard the recitation of 18 Puranas. He built the town of Indargarh<sup>8</sup> naming it after himself. He died in 1752 and his son Satarjit succeeded him. In 1788 when Mahajit Singh was going from the Deccan to Delhi, he met Satarjit on his way, and such a friendship sprung up between them that they treated each other as brothers. In 1793 Pundit Gopāl Rāo invaded Bundelkhand at Mahādaji Sindhia's order, which however was approved by the Emperor Shah Alam. He first attacked Datia on the 13th Phagun (March 1794) with 12 companies of infantry, 8,000 horse and 96 guns. The Raja came out from Datia with 10,000 foot and 30 guns. In three days 700 men and eight chiefs of the Raja, and 7,000 men of Gopal Rao were killed or wounded. The Peshwa's general at Jhansi, Sheo Rao Bhao, persuaded the Raja to purchase peace by promising the Pundit to present him with something which he said in reality he would not have to pay. At the same time he advised Gopal Rao to retire, which he said he could do without loss of glory. Both parties acted upon his advice, and fighting ceased, and Sindhia's general returned to the Deccan. In 1797 Sindhia<sup>4</sup> again sent a force of 20,000 foot and 50 guns under Ambhaji Inglia. This army reached Bhänger and in the month of Phägun (March 1798) overcame and killed 200 horse and foot and five officers who held Kanjoli<sup>5</sup> on behalf of the Raja; the artillery was also captured. In Cheit (April) he besieged the Raja's son who was in the fort of Seonrha<sup>6</sup> with a garrison of 12,000 men. For eight months the firing was incessant. Finally Sindhia's force attempted to

1 See p. 24.

**\$** This pargana consists of several isolated portions imbedded in Gwalior territory a short distance west of Jalaun district; and is still held by Holkar.

- \$ In Datia, 12 miles N. N.-E. of Datia town.
- 4 This must be Daulat Rao Sindhia, as Mahadaji Sindhia had died in 1794.
- <sup>6</sup> A place in the neighbourhood of Indargarh.
- In Datis on the Sindh River, 40 miles N.-E. of Datis.

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storm the fortress. The garrison after first pouring a volley into the attaokers, sallied out and drove them back a mile or so. Both sides lost some 6,000 men, but Ambaji abandoned the siege and retired towards the Kachhwäha country.<sup>1</sup> In 1800 Bäli Reo came with 16 battalions of infantry, 7,000 horse and 80 guns. A severe conflict took place at Bilahri.<sup>8</sup> Raja Satarjit,<sup>8</sup> Raja Jai Singh, Raja Durjan Säl, Diwan Chithar Singh of Jakhlon,<sup>4</sup> Rao Dalil Singh, Jargoji Lakhpoji,<sup>5</sup> and other Bundela chiefs advanced with 4,000 men to oppose him. But defeat or victory is in the hands of Providence, Raja Jai Singh, Diwān Chithar Singh and Dalil Singh were beaten off and withdrew to their respective dwellings, and Durjan Säl retreated to Bhāurér. But Satarjīt and Jargoji Lakhpoji continued to stoutly oppose Sindhia's forces close to Seonrha, where they were joined by Läl Säh and many other Kachhwāhas. Durjan Säl returned from Bhānrer. Finally another battle was fought and Bāli Rao defeated.

In 1801 Daulat Rao Sindhia sent an army of 5,000 horse, four battalions of infantry and 18 guns under Pirū Sāh<sup>6</sup> to reinforce Bāli Rao. As soon as he got near Seonrha the Bundelas attacked him at the pass (ghāti). After twelve hours' fighting the Raja's force yielded and fied in all directions. But Satarjīt with his 30 selected horsemen charged the left flank of the enemy's army, and wounded Pirū Sāh with his spear. But one of the chiefs of Sindhia's force gave him a severe cut on the head with his sword, which would have caused him to fall from his horse' had he not been caught by Wali Panwār, and with the help of Robāz Khān and other troopers carried off safely into the fort. The Raja died the same evening and his funeral ceremonies were performed. He was succeeded by Pārichat.

In consequence of the death of General Pirā, Sindhia's army retreated and in 1802 a treaty of peace was concluded with Sindhia. Pārichat was a great statesman and beloved by both his subjects and his army; but he had no heir. One day he found a child in the jungle whom he adopted and named Bijhe Bahådur, and on his death on the 3rd Magh 1893 (A.D. 1839) this son succeeded him. Bijhe Bahådur fought with Sindhia at Daboh,<sup>7</sup> but soon after becoming insane died

1 i. e., the present Jalaun district.

<sup>2</sup> 10 miles W. of Datia in Gwalior.

<sup>8</sup> Called Chatharsäl in Gazetteer, N.-W.P., I. 409.

• In pargana Lalitpur, Jhansi district, 11 miles S.-W. of Lalitpur.

5 Probably identical with Lakhevā-dādā.

<sup>6</sup> Better known as M. Perron.

<sup>1</sup> The chief town of the pargana of that name in Gwalior, 30 miles W. S.-W. of Jalann.

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on the 8th Katik 1914 (October 1857 A.D.) Bhagwān Singh the son of Diwān Mahewaran Singh was adopted and succeeded on the 3rd Aghan (December). He is still in possession of the Rāj, and has received the title of Lokendra Māharāja from the British Government.

#### Chauderi State.

Madhkur Sāh's eldest son Rām Sāh was the Raja of Orchha, but his brother Birsingh Deva dethroned him by order of the Emperor Jahängir in 1604.<sup>1</sup> Rām Sāh continued to resist for some time but was finally captured and brought before the Emperor by Abdullah Khan in 1605.<sup>1</sup> He was received and treated with respect, but to avoid chance of future disturbances the Emperor detained him in Delhi as a State prisoner. Meantime Birsingh Deva made himself the master of all Bundelkhand. During the absence of Rām Sāh, his grandson Bhārat Sāh and other numerous relations continued in arms and succeeded in seizing Patheri. After several days' fighting Birsingh Deva regained it, but Bhārat Sāh was far from being finally subdued, and captured Dhamoni shortly after. In 1608 the Emperor released Rām Sāh and gave him in jagir Bār<sup>#</sup> and the surrounding country valued at three lakhs. He made Bar his capital and collected all his relations there. He had eleven sons and seven grandsons; his eleven sons were (1) Sangrām Sāh (2) Hari Dās; (3) Bithul Dās; (4) Mohan Rao; (5) Tirbhuan Rao; (6) Sujān Rao; (7) Bhāwat Rao; (8) Mukatman; (9) Balbhadr; (10) Makund, and (11) Kunwarju. Of these the eldest Sangräm Säh had been killed long before in the battle of Orchha, The remaining ten sons, and seven sons of Sangrām Sāh came to Bar and settled there. Sangrām Sāh's sons were :—(1) Bhārat Sāh, (2) Krishn Rao, (3) Rūp, (4) Kīrat, (5) Dhārū; (6) Chandar Hans; (7) Man. So large a family was maintained by a territory yielding but three lakhs per annum. In 1612 Rām Sāh died and his grandson Bhārat Sāh succeeded him. In 1616 Bhārat Sāh defeated Godarām, who was governor of Chanderi on behalf of the king of the Deccan and seized the town. In the same year he met Mirza Shāh Jahān on his way to the Deccan under the orders of the Emperor, and told him the story of the storming of Chanderi, at which Shāh Jahān was pleased and granted him a sanad.

Bhārat Sāh built the present fort of Tālbehat in 1618, and divided

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<sup>1</sup> See note 74, the dates are obviously a year or two too early.

See note 76.

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his kingdom into four parts :-- Dudhai,<sup>1</sup> Haraspur,<sup>8</sup> Golakot<sup>5</sup> and Kāngarh.<sup>4</sup> At that time his dominion was valued at 9 lakhs, of which he gave shares to his brothers :-- to Krishn Rao several villages in Bānsi<sup>5</sup> yielding a revenue of Rs. 75,000, he built the fort which still exists there, and also Raor in Lalitpur city, which includes a fine well<sup>6</sup> and is now occupied by the Municipal School; to Diwān Rūp villages in pargana Bijrotha<sup>7</sup> worth Rs. 12,000; to Diwān KIrat, Kakarua<sup>8</sup> with a revenue of Rs. 12,000, to Chandar Hans Jāmandāna<sup>9</sup> valued at Rs. 10,000; to Diwān Dhārū, Karesra<sup>10</sup> worth Rs. 12,000 in jagir; and to Diwān Mān, Barodā<sup>11</sup> with a revenue of Rs. 4,000.

After Bhārat Sāh, Debi Singh ascended the throne at the age of 16.<sup>13</sup> He was renowned in astronomy, medicine, literature, and the law (Dharmshāstra) and was at the same time an excellent shot. In 1665 he accompanied an expedition which was sent by the Emperor to subdue Kābul. There he lost 15,000 horse, and his Diwān Udebhān,<sup>18</sup> but ultimately the Imperial army was victorious. The Emperor being pleased with him granted him the following parganas in Bundelkhand:--Garola, Khemlasa, Rahatgarh, Etawah, Basoda, Udepūr, Bersia, Bhilsa, Sironj and Mālthon.<sup>14</sup> With this addition the revenue of the kingdom of Chanderi totalled Rs. 24,00,000.

1 In pargana Bälabehat (Jhansi district) 19 miles S. of Lalitpur. There are a large number of Chandel ruins and a large Chandel tank here. For description see Mukarji's "Report on the Antiquities of Lalitpur" and Cunningham's "Archaeological Reports."

\* See note \$5.

<sup>5</sup> An old deserted fort lying East of Isagarh in Gwalior.

• On the Betwa in Gwalier, 28 miles S.-W. of Lalitpur.

<sup>5</sup> In pargana Bānsi (Jhansi district) 12 miles, N. of Lalitpur.

<sup>6</sup> The well is a large baoli on which is an inscription dated 1628 A.D.

<sup>7</sup> A large village in Talbehat pargana (Jhansi district) 19 miles N. of Lalitpur, still held by his descendants.

<sup>8</sup> In Lalitpur pargana (Jhansi district) 3 miles S. W. of Lalitpur; the descendant of the original grantee has recently been sold up.

<sup>9</sup> Jimandina Kalan, in Latitpur pargana (Jhansi district) 12 miles S. by W. of Lalitpur. Still held by his descendants.

10 Karesra Kalan, pargana Talbehat, (Jhansi district) 28 miles N. of Lalitpur. Still held by his descendants.

11 Baroda Däng, pargana Bänpür (Jhansi district) 18 miles N. N.-E. of Lalitpur. Still held by his descendants.

# 1n 1646.

18 An ancestor of the author.

14 This tract forms the S.-W. of the Sigar district and the native territory adjoining it.

Garola, Khemlasa, Etawah and Mälthon are now in Tahsil Khorai Ságar district. Rahatgarh is in Ságar Tahsil, Ságar district.

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In 1679 Debi Singh fought successfully in Bengal ! constructed the Singh Sägar lake and founded the village of Singhpur. The tank and village are both near Chanderi and still in existence. He built the Singh bagh in Talbehat which still exists but in ruins. Debi Singh died in 1717 at the age of 87, leaving three sons, Sahja, Senapati and Durag Singh. They all went to Delhi that the Emperor might select the successor, Bhanu the priest, who was at that time regent, recommended Sahju as being the eldest son, but Aurangzeb suspecting his choice sent for Rao Gomat and Rao Hada the two generals of the late Raja and asked them who was the lawful heir. They said that Sabju was an illegitimate son, Senapati a grandson whom the deceased Raja had adopted, and that Durag Singh alone was born from the Rani. The Emperor accordingly nominated Durag Singh as successor. He gave pargana Kanjia<sup>2</sup> to Sahju with the title of Raja. To Semanati he gave Bhängarh<sup>\$</sup> with several other villages worth in all about Rs. 12,000 per annum. But Durag Singh was made suzerain over both. While making these grants Aurangzeb retained Bersia for himself and appointed Dost Muhammad, who had recovered Malwa for the Emperor from the Mahrättas, its Saperintendent. This is the man who subsequently established the kingdom of Bhupal.

In 1728 Raja Durag Singh defeated Bägha Banjhāra.<sup>4</sup> In 1732 Sankar Rao came from the Deccan with 10,000 horse to attack Chanderi. But the Raja defeated and killed him at the Singhpur pass, and plundered his cavalry.

On the death of Durag Singh his son Durjan Singh succeeded in

Basoda and Udepur, are South of Bina, the former a station on the L. M. Ry. Bersia the most Western part of Bhupāl.

1 At the orders of the Emperor.

<sup>8</sup> Till 1861 part of Gwahior, then exchanged for pargana Chanderi and other territory, and now forming the N.-W. corner of Khorai Tahsil (Segar district).

<sup>8</sup> In Khorai tahsil (Sagar district) 20 miles N. N.-W. of Khorai.

<sup>6</sup> The story of Bäghn, and of some clan of the Banjäräs is thus related by the author. "A Bäja of Asanagar near Bikanīr was bitten by a snake and Jäti a Jaini Gurn promised him recovery if he and his people turned Jains; this he agreed to do and recovered. But some of his subjects refused to obey his orders to become Jains and left his state resolving henceforward to have no settled abode lest they should be again forced to do as they had just done; they thus became Banjäras. Bäghä was the son or grandson of the leader of these seccessionists, and is said to have had 2,000 armed followers and 12,000 head of cattle. Hitherto these Banjäras had paid dues, etc. on entering different states, but Bägba and his followers refused to do so, and though on several occasions attacked by the Imperial theops had been unsuccessful till this occasion. But the legend of Bäghä are numerous : the oriminal fraternity of the Sanorias have a legend that the first grant of 12 villages in Lalitour and Oroha was for killing this same Bägba. 1733.<sup>1</sup> In his time Govind Bundela<sup>\$</sup> of Sägar seized Garola, Mälthon, Khemlasa and Rahatgarh. In 1735 Malhär Rao invaded Bundelkband with an army of 100,000 and defeating Durjan Singh, annexed Bhilsa, Sironj, Udepür, and Basoda, and erected a fort on the boundary, which he called after his own name Malhärgarh.<sup>\$</sup>

Durjan Singh left four sons, Män Singh, Zoräwal Singh, Süba Sabib aud Dhiraj Singh. Of these Män Singh succeeded him. During his reign <sup>4</sup> Pandit Näru Sankar came from the Deccan, and annexed half the country comprising Mungaoli, Sahrai, Piprai,<sup>6</sup> Kanjia and Isagarh. Män Singh gave Päli<sup>6</sup> to his brother Zoräwal Singh, Bamori<sup>7</sup> to Süba Sahib, and Bänpür<sup>8</sup> to Dhiraj Singh. He had two sons Anrudh Singh and Hati Singh. Män Singh built the fort of Mahroni,<sup>9</sup> and dying in 1760 was succeeded by Anrudh Singh. Rao Hati Singh, who lived with him, acted as his deputy rather than as a minister. In 1775 Anrudh Singh died, leaving a son named Räm Chandar, who was only a boy, at the time. Hati Singh did not place Räm Chandar on the throne, but himself ruled the country as regent. The Räni suspecting Hati Singh's intentions, fied one night with the boy and 50 sawars to

1 The dates given here for the accession of the Rajas of Chauderi are very different from those in the Gasetteer N.-W. P. (I. 350 et seq). They are :--

| Raja.        |       | 1   | author.   | According to the<br>Gasetteer. |
|--------------|-------|-----|-----------|--------------------------------|
| Debi Singh   | •••   |     |           | 1646-1668                      |
| Duraj Singh  |       |     | 1717-1788 | 1668-1687                      |
| Durjan Singh | • •,• |     | 1788,     | 1687—1733                      |
| Mān Singh    | •••   | ••• | 1760      | 1788-1746                      |
| Anrud Singh  | •••   | ••• | 1760-1774 | 1746—1774                      |
|              |       |     |           |                                |

I have not so far been able to explain the discrepancy.

<sup>2</sup> Better known as Govind Pundit, the Mahrätta leader who assisted Ohathar Säl when nearly overwhelmed by the Muhammadans, and whom Ohathar Säl rewarded with one-third of his kingdom.--(1731). Ancestor of the Rajas of Jalann, Jhansi and Gursarai.

<sup>5</sup> In Gwalior on the Betwa on the Western border of the Sägar district.

Probably 1748 (see p. 24).

<sup>5</sup> Sahrai and Piprai are both near Mungaoli in that part of Gwalior which borders the N.-W. portion of Sägar district.

• In pargana Bälabehat (Jhansi district) 15 miles S. of Lalitpur, still held by his descendants.

<sup>7</sup> Bamori Kalan, pargana Lalitpur, district Jhansi, 7 miles S. S.-W. of Lalitpur. His descendants have lost possession of the village.

<sup>8</sup> In the pargana of that name (Jhansi district) 22 miles E. of Lalitpur, Dhīraj Şingh's descendants no longer hold it, but possess in jagir Gadišna (10 miles N.-E. of Lalitpur) and a few other villages.

<sup>9</sup> Head-quarters of the tahsil of that name in the Jhansi district, 23 miles E. S.-E. of Lalitpur. Achalgarh,<sup>1</sup> and took up her abode at Chaudhri Kirat Singh's house. He immediately sent a letter to Jakhlon whence Diwan Dhurmangad Singh started with 500 men and arrived at Achalgarh. In addition to his own men he collected 50 horse from among the Zamindars and 100 sepoys of the Chaudhri's. Thus with 100 horse and 600 foot behind him he reached Chandheri, and set up Rām Chandar in the presence of Hati Singh. Kirat Singh was made regent and Dhurmangad Singh Commander-in-Chief. Hati Singh withdrew to the fort of Talbehat, and prepared to fight. After a while Ram Chandar's force arrived there and a conflict ensued which lasted several months. Ultimately Rām Chandar proved victorious and gave 16 villages including Masora<sup>2</sup> to Hati Singh. In 1778 Rām Chandar was firmly seated on the throne. In 1783 he put to death Hati Singh and a Brahman of Tālbehat; remorse however came upon him, and he was so much afraid of their spirits which haunted him, that he made pilgrimages to all the shrines of India, but all without avail. Finally he visited Ajudhya, where, finding a refuge from his fears he spent the remainder of his days. During his absence from the kingdom one of his relatives named Devaju Panwär, collected a portion of the revenue and sent it to the Raja for his maintenance.

Meantime<sup>8</sup> Ābha Sāhib sent an expedition under Morupanth from Sāgar to overthrow the kingdom of Chanderi. There marched out to meet the Marhāttas of the Bundelas Rao Umrao Singh of Rajwāra<sup>4</sup> with 2,000 men, Diwān Chithar Singh of Jākhlon with 1,500, the Chaudhri of Achalgarh with 1,000, and Durjan Sāl Khichhi with 500 horse; these all assembled at Lalitpur. A battle was fought between Lalitpur and Panari<sup>5</sup> which lasted the whole day, 500 men of Chithar Singh's were killed, and he himself wounded. The battle was indecisive and both parties returned to their homes.

Rajā Ram Chandar had four sons Parjapāl, Mūr Pahlād, Bāwanpāl and Chithar Singh. In 1802 he appointed Parjāpal to succeed him and sent him from Ajudhia to Chanderi. He subjugated all the Bundelas, but was killed in the battle of Rajwāra.<sup>6</sup> He was succeeded by Mūr Pahlād. In his time a Frenchman named Jean Baptiste Filose,

- 1 In Gwalior, 10 miles N. of Mungaoli.
- <sup>3</sup> Masora Khurd, 3 miles, S.-E. of Lalitpur.
- **1787**.
- 4 3 miles, N.-E. of Lalitpur.
- <sup>5</sup> A village 2 miles, N.-E. of Lalitpur.

<sup>6</sup> Sc. the battle just mentioned. In the Gasetteer (I. 351). Parjapål is said to have been murdered, but the author tells me he, when young, met survivors from the battle who relate that Parjapål was wounded in the battle and survived it 15 or 20 days dying in Lalitpur where a Mukbara in his honour stands now. who was a general of Sindhia's attacked Chanderi in 1811. On his way to Chanderi he conquered the jagirdars of Geora,<sup>1</sup> Bānsi, Kotra,<sup>8</sup> Nanora,<sup>3</sup> Barwär,<sup>4</sup> Rajwära, Mahroni, Jäkhlon, Deogarh, etc., and arrived at the capital. Raja Mür Pahlād fled to Jhansi. But Diwān Bakht Singh and Kunwar Umrao Singh his two brothers, together with the jagirdars of Jākhlon, held the fort for three months. At last through the treachery of a Thakur of Silgan<sup>5</sup> it fell into the hands of Jean Baptiste Filose. Talbehat was next attacked and captured after a siege of three months. In 1812 Sindhia's general gave 31 villages 6 to Mūr Pahlād, and reduced the remainder of the kingdom of Chanderi to submission. In 1828 all the Bundelas together with the Raja determined to overthrow the sovereignty of Sindhia, and sent a Vakil to the Agent to the Governor-General of India in Banda with a complaint that Sindhia was forcibly depriving them of their kingdom. In 1830 Col. Filose came from Gwalior and the MIr Munshi from Banda to reconcile the two parties. It was settled by treaty that one-third of the kingdom, valued at Rs. 1,65,681 per annum should be retained by Raja Mür Pahlād, and the remaining two-thirds be given over to Sindhia. From that date Mür Pahläd was known as Raja of Bänpür. After his death his son Mardan Singh succeeded him in 1842. He [rebelled in the mutiny and his territory] was [confiscated and himself] granted a pension of Rs. 9,600 per annum. At present his grandson Nirwe Singh residing in Datia, receives a pension of Rs. 500 per month.

Sangrām Sāh the son of Raja Rām Sāh had seven sons. The reign of Krishn Rao one of these seven sons, will now be described. In 1612, when Maharaja Rām Sāh died in Bar his grandson Bhārat Sāh succeeded him. Krishn Rao was the son of the first Rāni, but being younger than his step-brother, was passed over for the throne, and appointed to assist in the administration at head-quarters. As soon as Chanderi fell into the hands of Bhārat Sāh he distributed "Hake"— (rights, estates) to his brothers. But Krishn Rao refused to **take** his 'hak' and came to Lalitpur under pretence of collecting revenue. From Lalitpur he sent a representative to Shābjahān petitioning him to

<sup>1</sup> Pargana Tälbehat, Jhansi district, 38 miles N. N.-E. of Lalitpur.

<sup>2</sup> 21 miles N. N.-W. of Lalitpur.

<sup>8</sup> On the Betwa 18 miles N.-W. of Lalitpur.

• 6 miles W. N.-W. of Lalitpur.

<sup>6</sup> 3 miles N.-W. of Lalitpur; the man's name was Budh Singh, not of Chanderi as stated in the *Gasetteer* (I. 352). The author tells me he actually met him in his youth.

<sup>6</sup> The chief of which was Kelgawan 23 miles N.-E. of Lalitpur,

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'grant him the 'hak' to which he was entitled as son of the first Rani. The Emperer ordered Bhārat Sāh to give him one-eighth part of the kingdom. He accordingly granted his brother a jagir of Rs. 75,000 in Bansi together with Baor and a garden in Lalitpur city. The ten uncles and four brothers of Bhārat Sāb, who had been made separate shareholders in the kingdom were made subject to Krishn Rao. From this time the descendants of Krishn Rao have been known as the "Bansiwalas." They were entitled to take their seats on the right hand in Durbar, and were invested with the right of installing the Raja. Krishn Rao built a fort in Bänsi and a well in Raor, where is now the Lalitpur He had three sons Bishan Rai, Udebhan and Municipal School. Dalip Narain, and died in 1643 when he was succeeded by Bishan Rai. Udebhān accompanied Debi Singh (Raja of Chanderi) to Kābul with an expedition sent by the Emperor of Delhi, and was killed there with 50 horsemen. As a remuneration the Emperor gave his son Makund Singh the title of Diwan, and presented him with a horse and two swords in addition to 58 villages in pargana Etāwah.<sup>1</sup> Makund Singh kept this jagir separate from that which had been granted him by his grandfather Krishn Bao. His uncle Bishan Rai was annoyed at this and confiscated his 'hak'; Makund Singh complained against him to Maharaja Debi Sigh, and the discussion continued for some years, until finally in 1683 it was agreed that the petitioner should get villages worth Rs. 27,000 from the jagir.<sup>\$</sup>

Diwān Makund Singh had two sons, Dāl Singh and Naraingir; to the former he gave pargana Etāwah, and to the latter the Bānsi villages After having done this he went to Delhi, and accompanied the Imperialarmy commanded by Subharām to Kandahār where he was killed in 1760. Maharāja Debi Singh gave the title of Diwān to Dāl Singh and Naraingir and confirmed them as jagirdars of Etāwah and Datia respectively.<sup>8</sup>

In 1735 Malhār Rao Holkar<sup>4</sup> came from the Deccan and killed Dāl Singh. His son Dhan Singh then left Etāwah and went to Datia.<sup>6</sup> In 1787 Abulfazl, an Imperial general, attacked Chanderi and a battle was fought at Datia in which Diwān Naraingir and 300 sepoys were slain. After his death his son Dhurmangad Singh succeeded him.

1 Now part of Khorai Tahsil in Sagar district.

<sup>2</sup> These villages lay in the S.-W. of Lalitpur sub-division, around Jäkhlon, Deogarh and Datia, at which last named is a ruined fort on the Betwa three miles above Deogarh.

8 See note 168.

4 See page 28.

<sup>b</sup> Near Deogarh (note 169).

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The latter had six sons, Bakht Singh, Umrao Singh, Chithar Singh Udiajit, Nirpat Singh, and Rājagir.

Dhurmangad Singh took great interest in improving the jagir, and also in religious matters. During his life he entrusted the whole of the affairs of the jagir to Chithar Singh and Bakht Singh, making Jakhlon the chief place in his jagir; but himself left his family and retired into the Sidh-Gupha<sup>1</sup> with two or three men and became a devotee. Shortly after this he died (in 1794) and his sons divided the jagir between them. Chithar Singh and Udiajit received 11 shares and Diwan Bakht Singh and Umrao Singh one share only. Diwan Bakht Singh built a fort at Nanora while Kunwar Umrao Singh and Udiajit erected forts at Baroda<sup>9</sup> and Dudhai respectively, both of which are now in ruins. Chithar Singh also built a fort at Chapra,<sup>8</sup> and a temple to Ganesh in Jäkhlon. He was both war-like and fortunate. In 1785 he wrested Sahrai, Isagarh, Sarai<sup>5</sup> Chachonra<sup>6</sup> etc., in all 12 parganas, from the Peshwa. The annual revenue of the 12 parganas was not less than 7 lakhs. He had an escort of 50 horsemen, and 1,500 sepoys who always attended him. On several occasions he helped the Rajas of Panna, Datia, Dholpur, Bajranggarh<sup>7</sup> etc. It was he who repulsed the formidable attack of Morupanth of Sagar in 1787 and saved the kingdom of Chanderi. In 1807, Udiajit died and Chithar Singh in 1808. His brother Diwan Bakht Singh outlived him. In 1781 Dadu Baba of Malhargarh, who was one of the Peshwa's governors, unsuccessfully attacked Piprai.<sup>8</sup> In 1795 Sindhia's army with a strong force of artillery came from Pirghät<sup>9</sup> to attack Piprai, but was repulsed by Bakht Singh. In 1800 Båli Rao, a general of the Peshwa, with 12,000 men attacked Jäkhlon; the battle lasted the whole day. By evening Diwan Chithar Singh arrived from Deogarh and in the next day peace was negotiated and Bali Rao went to Tori.10

<sup>1</sup> A cave in the cliff under the fort at Deogarh over-looking the Betwa, it contains a rock cut inscription recording that Sohanpäl took Kurër in Sambat 1345 (1288 A.D.).

<sup>2</sup> Baroda Swami, 3 miles E. of Nanora, still held by the descendants of Kunwar Umrao Singh.

<sup>8</sup> 8 miles S. S.-W. of Chanderi,

• See note 151.

<sup>6</sup> Is Nai Sarai in Gwalior 26 miles N.-E. of Guna.

In Gwalior 38 miles S.-W. of Guna.

<sup>7</sup> Now in Gwalior 6 miles S. of Gwalior.

<sup>3</sup> This Piprai is in pargana Bálabehat (Jhansi district) 19 miles 8, by W. of Lalitpur.

<sup>9</sup> On the Narain river in the extreme south of pargana Balabehat.

<sup>10</sup> In Gwalior 5 miles N.-E. of Mungaoli and 7 miles S.-W. of Deogark.

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In the beginning of 1812 Sindhia's general Colonel Filose, with eight battalions and 200 horse attacked Chanderi. Maharaja Mūr Pahlād being unable to defend it fled to Jhansi, and Diwan Bakht Singh and Umrao Singh opposed him. At first the general besieged the fort of Nanora whence Bakht Singh and Umrao Singh, after bravely maintaining their position with the help of 60 sepoys for eight days, fled. Colonel Filose attacked Jäkhlon a second time in 1812. Diwän Bakht Singh maintained a resistance the whole day, and in the evening retreated to Deogarh. After eight days the colonel followed him there, and after three more days fighting drove Bakht Singh to Chanderi Mür Pahlād then fled to Jhansi leaving his fort to be defended by Bakht Singh. The siege was carried on for several weeks but in the end through the treachery of a Thakur<sup>1</sup> the town was surrendered. Bakht Singh and Umrao Singh held out in the fort of Chanderi till provisions ran short, when they fled to Piprai.<sup>4</sup> Sindhia's general followed them there but being defeated, on the same day went to Pāli,<sup>8</sup> and halted there with his army. Another battle was fought at Dudhai and the colonel was beaten off. He then returned to Lalitpur and leaving two companies there started to Talbehat. In 1813 Diwan Bakht Singh attacked Lalitpur and after driving out Sindhia's troops plundered the town. As soon as he heard of the expected return of Colonel Filose he marched out and opposed him at Tenta,<sup>4</sup> but being defeated went to Nanora and after a short time to Jāmandāna 5 and there cut up 200 of Sindhia's Sāwars. In 1814 a skirmish took place at Amrodh<sup>6</sup> and the colonel was compelled to retire with the loss of founcompanies. In the same year Bakht Singh fell ill; a vakil was sent and a peace concluded by which the colonel granted him his former jagir. The Diwan died soon after at Tehri, and was succeeded in the jagir by his son Diwan Gambhir Singh aged 13, with his uncle Umrao Singh as guardian. In 1821 Siām Rao was appointed governor of the district on behalf of Sindhia. He confiscated the muafi in Malhargarh, which yielded an annual income of Rs. 1,300. Diwân Bahādur Gambhir Singh marched out to oppose the confiscation, and encountered Siam Rao at the head of a small force. The fight lasted six hours and resulted in the repulse of Siam Rao, who withdrew to Malhārgarh ; Diwān Bahadūr was however wounded. After this a series of small fights ensued between him and Siudhia's

1 See p. 37.

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- <sup>8</sup> See note 180.
- <sup>8</sup> See note 152.
- 16 miles N. of Lalitpur.
- Jamandána Kalan. See note 187.
- Said by the author to be near Pachhor in Gwalior.

forces, full details of which cannot be given in order; they will accord. ingly be merely summarized. On one occasion Siam Rao came to Parasari,<sup>1</sup> whence being defeated, he retired. On another occasion he attacked the village of Pali, and after 15 days' fighting was repulsed. He once besieged the fort of Nanora, and captured it in 15 days; but a few days later there was another fight at Käli Dün<sup>\$</sup> in which he was defeated and driven back. He was then superseded by Mādho Rao, but the new Governor was defeated at Bikrampūr,<sup>8</sup> and forced to retreat. Soon after he unsuccessfully attacked Diwan Bahadur at Bhuchera, but was driven off to a distance of four miles. He was next repulsed at Khand. After this another of Sindhia's officers Lachman Rao attacked Nanora. and an engagement occurred which lasted for 15 days. Another battle was fought at Gahora,<sup>6</sup> and Diwan Gambir Singh, being defeated, fled to Datia.<sup>7</sup> Lachman Rao again came at the head of two companies and 500 horse, and Diwan Bahadur with several Bundela chiefs opposed him; fighting lasted eight days; both sides lost 500 men and Sindhia's army withdrew to Lalitpur. Finally a treaty was concluded by which the 'hak' was restored, and Diwan Bahadur secured the treatment to which he considered himself entitled on the occasion of an interview. In addition to this Diwan Bahadur had fights with several other Rajas and jagirdars :--- the Rao of Rajwāra, Raja of Orchha, Rao of Khanyadāna, jagirdar of Murwāri,<sup>8</sup> jagirdar of Gora,<sup>9</sup> and the jagirdar of Kisalwans.<sup>10</sup> As early as 1813 he had fought Colonel Filose at Garbakota. In 1828 he dug a tank at Jäkhlon.

In 1829, when Bikramajīt Raja of Orchha wished to regain Chanderi by paying the charges of the Gwalior Contingent, he appointed his son Mardan Singh commander of his army, and Umrao Singh of **Rajwāra**, and Umrao Singh of Jākhlon as his advisers Diwān Gambhīr Singh was made a general and Bakshi Bakht Singh of **Tālbehat was put in** charge of the cavalry. The campaign began by an attempt on the part of Bakshi Bakht Singh to storm Mahroni, but in this he was prevented by the arrival of a force of Sindhia's with two light guns, and accord-

1 On the W. bank of the Betwa opposite Deogarh.

<sup>8</sup> In the Balabehat pargana a few miles S.-E. of Dudhai.

<sup>8</sup> In Gwalior 4 miles S.-E. of Chanderi.

• 23 miles N.N.-E. of Lalitpur.

<sup>5</sup> A rocky hill N. of Bhuchera.

<sup>6</sup> In Gwalior 3 miles N.-W. of Isagarh.

<sup>7</sup> See note 169.

8 9 miles N.-W. of Lalitpur.

9 In Gwalior 9 miles N. N.-E. of Chanderi.

<sup>10</sup> The author cannot say where this is, beyond that it is not the Kisalwans on the Betwa 17 miles N.-W. of Lalitpur.

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ingly retired to Khiria,1 but not before Tilok Singh of Gurha<sup>3</sup> had been killed in the fighting. Sindhia's troops did not follow them to Khiria as it was in Orchha territory. After this Diwan Bahadur Gambhir Singh with a large body of Thakars plundered Kalyanpura,<sup>8</sup> and was only persuaded not to advance to Lalitpur by a handsome present from the bankers of that town. Diwan Bahadur accordingly left Lalitpur and marched north encamping on the bank of the Kherär nadi at Burenro,<sup>4</sup> near Jakhora. A detachment of one company of foot, one of artillery and one of cavalry arrived at Sirsi.<sup>5</sup> Diwan Babadur Singh met them at the head of 1,000 foot. As soon as Mardan Singh heard of this he went to his assistance, and by two hours after sunrise Sindhia's force was defeated and fled into Sirsi. The Bundela army went to Tslbehat, and attacked the fort, cannonading continuing day and night. But when Sindhia's force from Lalitpur had joined that from Sirsi and both pressed the Bundelas, they left Talbehat and retired to Bijrotha.6 At this time an order was received from the Agent to the Governor-General that fighting was to stop, and the matter to be left for the decision of the Supreme Government.

In 1812 Colonel Filose from Gwalior, the Mīr Munshi from the Agency and Nanneju Thakur from Tehri met at Sindwāha,<sup>7</sup> and there the Batota treaty was framed. Diwān Bahādur Gambhir Singh and Kunwar Umrao Singh were allowed to retain possession of their previous shares. In 1838 the fort at Nanora which had been destroyed by the colonel, was rebuilt. In 1839 Diwān Bahādur Gambhir Singh died, and was succeeded in the jagir in the same year on Chait B. 11 by his son Diwan Bijhe Bahādur Dalip Singh. He was a skilful rider, wise, a good scholar in the Shāstras, and devoted himself to the worship of Gopālji. He died at Banpūr in 1905 on Magh S. 11 (1849) and was succeeded by Diwān Bijhe Bahādur Mazbūt Singh (the author of this book). Till 1863 he was a child, but early in 1864 edited the Binđprakāsh in Hindi, a book which contains extracts from all the Shāstras and Puranas; and which is of great use to scholars of the Veda. In 1865 he rebuilt the fort at Nanora, which had been destroyed by

1 In Orchha, 4 miles N.-E. of Mahroni.

<sup>8</sup> 6 miles E. of Mahroni.

<sup>8</sup> In pargana Lalitpur (Jhansi district) 8 miles E. of Lalitpur.

<sup>4</sup> A small village on the Kherār Nadi 2 miles N. of Jakhora which is 17 miles N. N.-W. of Lalitpur.

4 miles S. S.-E. of Jakhora.

6 See note 135.

7 18 miles S.-E. of Lalitpur; there are here the tombs of some members of the family of Major Alexander, a French officer serving in Sindhia's army, and whose descendants held the neighbouring village of Jaria in jagir. Sindhia's force. In 1868 he constructed a tank in Karrana<sup>1</sup> and more recently another smaller one in Gudūwal.<sup>6</sup> In 1874 he began a garden in Jākhlon which still exists, and which with God's help shall be improved. In 1876 he edited a manual named Nitchandar in very simple Hindi, which can be used by all religions.

1 In Gwalior 6 miles 8. of Chanderi.

<sup>2</sup> On the Betwa, 11 miles W. of Lalitpur.

### Faqir Khayr-ud-Din Muhammad, the Historian of Shah 'Alam.—By E. DENISON BOSS, PH.D.

Our information with regard to the historian Faqir Khayr-ud-Din Muhammad Ilāhābādī is principally derived from what he himself tells us in the course of his works. Of these, so far as I am aware, three only have hitherto been known to scholars, namely: 1. The 'Ibrat-Nāma, or "Book of Warning" described in Rieu's Catalogue of the Persian Manuscripts in the British Museum, Vol. III, p. 946, and in Sir H. Elliot's History of India, Vol. VIII, pp. 237-254. 2. The Jaunpur-Nāma, a History of Jaunpūr, described by Rieu loc. cit. Vol. I, p. 311; 3. The Balwant-Nāma, described by Sir H. Elliot loc. cit. Vol. VIII, p. 416, which is another title for the Tuhfa-i-Tāza, translated, by F. Curwen and printed by the Allahabad Government Press, 1875. Of the first of these works the late Dr. Chas. Rieu wrote as follows: "The 'Ibrat-Nāma is the fullest and most accurate account we possess of the chequered career and troubled times of Shāh 'Alam, and it has all the value of contemporary record, penned by one who had taken an active share in some of the principal transactions of the period, and was personally acquainted with the most prominent actors on the scene."

The Jaunpūr-Nāma contains the history of the town of Jaunpūr from the middle of the 14th century down to the time of Akbar. It was written for Mr. Abraham Willard, as was also the *Tuķfa-i-Tāsa* (or *Balwant-Náma*), which contains an account of the Rājas of Benares.

The details concerning their author which we derive from these works are very meagre, and only cover a period of about eight years. There is, however, another work by Faqir Khayr-ud-Din in the Library of the Asiatic Society of Bengal which throws much new light on the author and his personality. This little book, which only comprises 45 folios, is called by the vague title of *Tazkirat-ul-'Ulama* or "Lives of the Learned" and is divided into three *faşls* and a *khātima*.

Faşl I. Contains a short sketch of the history of Jaunpür.

Fași II. Notices of eminent men. This section contains quotations from such well-known works as the Tārīkh-i-Firūz-shāhi and the Tabaqāt-i-Nāşiri.

Fast III. An account of the Foundation of the Madrasah of Jaunpūr, and the methods adopted for bringing together in that city students and scholars.

Khātima. Concerning the author.

It is this *Khātima* or "conclusion" which contains the fresh light on our author to which I have referred, and which forms the staple of the present article. In it Khayr-ud-Din also gives a complete list of his works up to the time of writing, that is A.D. 1801 (A.H. 1216). The list is a long one, amounting to upwards of 30 works, and concerning most branches of Mohammedan lore. It is strange that so few of them should have reached posterity. Of all these works, the one whose disappearance (or perhaps non-appearance, for he speaks of it as incomplete) is to be most regretted is the *Kitab-!.'Alam-Ashūb*, "A History of Hindustan from the time of the advent of the great King of Iran down to the time of Amīr-ul-Umara Mirzā Najaf Khān."

I have decided to print the text of this Khātima and in this place merely to sum up the principal events in the author's career which are to be derived from the available sources above enumerated.

Fagir Khayr-ud-Din Muhammad was born in Allahabad in A.D. 1751. He began his studies at the age of eleven, and completed his course in five years, under the instruction of Sayyid Muhammad Husayn Mūsavī of Aurangābād, who was held in the highest esteem, we are told, by rich and poor in Allahabad. In A.D. 1771 his master died, and Khayr-ud-Din proceeded to Jaunpur to study under Maulana Muhammad 'Askari, with whom he read many works. In Jaunpur he also gave lessons and began at his time to write books. At the end of sixteen months he returned to Allahabad, where he began to teach in his own Madrasah. Shortly after this, however, in A.D. 1772, the district of Allahabad was placed by the "Great Sahibs," under the charge of Nawwab Shuja'-ud-Dawla, who confiscated the stipends and endowments of all teachers and shaykhs: and Khayr-ud-Din was consequently compelled to close his Madrasah. He threw himself on the mercy of the "Great Sahibs" who took him into their employ and charged him with important duties. The next twenty years of his life he seems to have spent partly in the service of Shah 'Alam, partly in the employ of various English and native officials, and partly in teaching in Allahabad or Benares. In 1783-4 we find him employed as confidential agent by Mr. James Anderson, the British Resident in the camp of Scindhia. In 1785, owing to a severe illness, he took leave of Mr. Anderson and returned to Allahabad. "He then attached himself to the fortunes of the Shāhzāda Jahāndār Shāh, the eldest son of Shāhjahān, whom he assisted in his attempt to seize upon the Delhi Goverament, and by whom he was treated, according to his own statement, as the most trusted friend and adviser."

In A.D. 1787 he proceeded to Lucknow: and after some time again returned to Allahabad. In 1793 his then master, Mr. Trevis, was appointed Judge of Jaunpür, and Khayr-ud-Din accompanied him thither After few months, however, Mr. Trevis was transferred to the Appelate Court at Benares, and was succeeded in Jaunpür by Mr. Abraham Willard, whose service Khayr-ud-Din now entered. There is, however, a discrepency in the dates here, for the Jaunpür-Nāma says that Mr. Willard was appointed in 1796, whereas according to the Tazkiratul-Ulama he must have succeeded to the Judgeship of Jaunpür in 1793 or 1794.

Khayr-ad-Dīn spent the last years of his life in Jaunpūr, in the enjoyment of a Government Pension granted in recognition of his faithful services in negotiation with the Mahrattas.

- He died about the year A.D. 1827.
- The following is the complete text of the Khātima :---

خانبة در شبة از سرگذشت مراف ذرة بيبقدار فقير خيرالدين محمد بتاريخ درازدهم ماة صفر سنة يكهزار يكمد شعبت و پنج هجري در بلدة اله اباد لبلى هستي پرشيد در سنة يازدة مالگي مرشقة تحصيل علوم بدست اورد كتب درسي از هدايت تا نهايت ديمرمة پنج سال در حلقة دانش إفضل الفضلي اكمل الكمللى سيد محمد حسين موسوي اورنگ ابادي كه در شهر اله اباد مسجود خلائق و مرجع شاة و گدا بود گذرانيد و بعضور انجناب بقدريس طالبان علوم مطفول شد چون در ماة ذي حجه منه يكهزار يكمد هشتاد و پنجم العرب علوم مطفول شد چون در ماة ذي حجه منه يكهزار يكمد هشتاد و پنجم المريس فوت كرد در خود ياراى استقامت شهر اله اباد نيافت ستايش فضل و كمال مولانا محمد مسكري جونهوري و مهارت و معرف نيافت ستايش فضل و كمال مولانا محمد مسكري جونهوري و مهارت و معرف وى در علم بلاغت شنيدة ديوانقوار در عين برشكال عازم جونهور شد وزيادة از شنيدة زيان حضرت اكتساب نمود و مسلم الاصول وا از خدمت مولانا ابوالخير خلف مفتي تزاوان حضرت اكتساب نمود و مسلم الاصول وا از خدمت مولانا ابوالخير غيام استفادة كرد و در جونهور نيز بتدريس طالبان و تصنيف كتابيا مشغول بود نيام منابله استفادة كرد و در جونهور نيز بتدريس طالبان و تصنيف كتابيا مشغول بود الاي حضرت اكتساب نمود و مسلم الاصول وا از خدمت مولانا ابوالغير خلف مفتي برد شاوال ه استفادة كرد و در جونهور نيز بتدريس طالبان و تصنيف كتابيا مشغول بود نيام اله استفاده ماد از موني اله اله مراجعت كرد و در مدرسة خرد نشسته شاوال ه استفاده مرد و در جونهور اله المان و تصنيف كتابيا مشغول بود ابتد باليم طلبة علوم پرداخت چون در سنة يك هزار يك مد هشتاد و شش هجري مربه بنعليم طلبة علوم پرداخت جون در سنة يك هزار يك مد هشتاد و شش هجري مربه الما اله اند انه در منه به درسانه اله و مند به اله اله اله اله منه اله اله اله اله مرد منه به مرام اله اله اله اله اله مرداخت مرد اله مرد اله اله اله اله مردانه اله مردانه اله اله مرداخت مردانه اله مردانه مرد اله مردانه مردانه مردانه مرماله عارم بود اله مردانه مردانه مردانه مردانه اله مردانه مردانه اله اله مردانه مردانه مردانه اله مردانه مرد مرد اله اله مردانه اله اله مردانه مردانه مردانه مردانه اله مردانه مردانه مردانه اله مردانه اله مردانه مردانه مردانه مردانه مردانه مردانه مردانه مردانه مردانه اله مردانه مردانه مردانه مردانه مردانه اله مردان 1902.] E. D. Ross-Historian of Shah 'Alam.

قله اد از طرف صاحبان عالیشان بکار پردازان ذوب شچاع الدوله مقرر شده بوطهرا مغود معلق مدرمان. و مشابعان اللاكباد را ذير ضبط فرمود طالبان علم معرض<sup>ع</sup> بين فقير بسبب تذكى معالى برخاستند فقير نيز باستصوب خود بعزم رفاقت صاحبان بدر شناس بی ادیشهٔ زاد از مدرسه برخاست و فیضها از رفاقت صاحدان عالیشان ایبرداشت ثورت و جلا بسیار یافت و بکاردای عمده مامور شد و از کچا بکچا زمید و جها جها ديد مدتى هماشين شاة عالم بادشاة و نواب ٢صف الدولة وزبر الممالك هرهوم برد نواب رزیر مغفور تولیت امام با<del>ر</del>ع کلان، و تدریس مدرسهٔ نو ساخت برای این فقیر تجویز نمود و بکمال خواهش از اله اباد بلکهنو برد از نفاق بعضی مشیرانش بتفاق نشد ۲ خرالامر هوای تدریس در دل این فقیر بیچید سالے جاد در الا اداد و بنارس بدريس پرداخت کخرالامر در منه يکهزار دومد نه هجري در هر چهار سرکار عدالت هندوستانیاک موقوف گردید و صاحبان حالیشان جے و رجستر مقرر شدند مستر قروبس که جم جونپور شده بود بسبب ترسلی که این فقیر از مرت بخدمت او داشت همرا، بچونپور اردر بعد چند ما او در ابيل بنارس رفت و بچاي او مستر ولند جے چونپرو شدند بملاءظه قدردانيها ساية نمط دنبال كن خورشيد خصال گرفت وبامرد انكه 🔹 ء • شاید شب ما هم سعری داشته باشد \* رفاقت او را سرمایه رفعت و عزت خود دریافت المحمد لله كه شب انتظار اين فقير بديايان رسيدة و صبح اقبال : ( افق طالعم دميدة نويد قدوم مالك إلملك ديها دل ابر نوال خدارند جالا و جالل كورنر جنول لارة ماركوئس لاق مارندک تین بهادر دام اقباله دل را بال وزبان را نیرو پدید آوره . و بيت ۽ 

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بغرمایش خواجه عین الدین که از عبد؛ ناظمان ممالک محروسة وزیر الممالک بود نوشته او بکربالی معلی فرصتاد علمای آن مکان پسند نمودند و چند سطر در تعریف کان بطرز شهادت نگاشدند ر کتاب خوراق قادرید حسب خراهش حضرت شاه عالم بادشاد در عدارت فارسی تالیف نمودم و در صلهٔ کن شقه بد<sup>ست</sup>غط خاص و رعایت اعزاز و احترام باین فقیر رسید و رساله برهان امامت و لطائف الابرار حسب فرمایش نواب وزير لواب ٢مف الدولة مرحوم تاليف تمودم در جائزة برهان امامت تواب وزبو الممالک مرهوم پنجهزا ر روپیه باین فقیر بخشید و این رساله بسبب حسن قبول در تمام ديار هذدرستان مشهور گرديد كتاب مجالس المؤمنين مير نورالله شوستري را که کم از دو صد جزو کلان نباشد دریک ماه بعبارت فارسی صاف انتخاب نموه وخير المچااس نام نهاد ورساله نادر دلپسند در علم تهذيب الاخلاق ۲ چذان نوشت كا يك لقط عربي بافراد و تركيب دران يافته نمي شود و در علم تاريخ و سير كتاب سراستان مشتمابر عجائب حكايات عدالت وشجاعت و تدبير سلاطين هندرستان در عدارت فارسی و کتاب گلزار اسرار در لطائف و اداب فقرای این دیار نوشت و کتاب عالم ۲ شوب مشتملدر سوانی تمام ممالك محروسة هندوستان از سال ورود بادشاة قهرمان ابران ثا وفات امير الأمرا مرزا نجف خان بعيارت رنگين تاليف نمرد هنوز این کتاب باختدام نرسید؛ موقوف بر خواهش خدارند است و کتاب عبرت نامهٔ در احوال سلطنت شاء عام و کوائف مختاران سلطنت او و آغاز و انجام هریکی و جزاي بد كردري كه غلام قادر حان يافت تصنيف كرد و كتاب جونپور انامه و كتاب تحفئ تازد مشتملبر حالات ناظمان بذارس و راجهاے کان تا خراج چیت سنگھ و بندر بست جديد كه كار پردازان سركار كمپذي انگريز بهادر حسب الحكم نواب گورنو جاول بظهور وردة بفرمايش مستر ابرهم و لذه بهادر جم ضلع جونهور بسلك تحرير كشيدة و كداب گوالیار نامد مشتملبر حالات راجهای آن ضلع و ا<sup>ست</sup>حکام و ارتفاع حصار گوالیار و کار نامه که میچر بروس در تسخیر آن بظهور آورد، در حصار تالیف در آورد و سوای آن دیگر کتب و رسائل که بفرمایش صاحبان عالیشان تعذیف کرده نفصیل آن محمول برخود ستائي مي شرد اين قدر هم براي آن نوشت نا ظاهر گردد که اين بيمقدار نیز لیاقت در آصدن در هایمهٔ علما دارد و بهرهٔ از علرم و فنرن حاصل کرده است و الا مشک آنست که خود بوید نه که عطار وعف آن گوید آمید از جاب اقدس آن دارد که چون در سایه عذایات خدارد جهان و جهانیان امیر ممالک معروسه هندوستان زبدة نواايذان عظيم الشان دام اقباله جندى بياسايد وبا طوطيان جمن بالغت طرح همراهی اندازد تصنیفات و تالیفات خود را بذکر جملیش بیاراید و قضائل و حسنات کن ذرالفضل و المحسان را زند؛ جارید گرداند . 🔹 ايپات 🖓

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بسا كامًا كة معمودهى بناكود كة از رفعت هدين نامة مرا كرد نة بيني زان همة يك خشك برجلى بنائى عنصري ماندة است بريلى مجيب الدعوات اين والي الملك حامي الفضلة را پيوستة در حفظ و حمايت خود داشتة فرمان رواى بر و بحر دارد و تمامي ممالك محروسة هندوستان را از لواى حكومت و بيارايد مواليان در دولتش مقبول و مدعيان باركاة عاليش منكوب و مغذول باشنده سخن بعدم تر آراستن غرف اين است كة پيش اهل خرد منصبى بود ما را مخن بعدم تر آراستن غرف اين است كة پيش اهل خرد منصبى بود ما را و گرنة منقبت آفتاب مشهدور است جه حاجت است بمشاطة روى زيبا را ملع جونپور اين. فقير عام آزماني كرد و اين عجائب حالات را از كنب سلف در عرصة قليلة بر آوردة بقاريخ بست پنجم ماة ستمبر سنة يكهزار هشتصد يك عيسوي مطابق و يازدهم ماة جمادي الأرلي سنة يك مترار دو صد شانزدة هجري در حيز تحريرآورد مسبب الإسباب تاثير قبول ايختر طابع شريف خداوند جهانيان سازد ه

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The Licchavi race of ancient India.—By SATIS CHANDRA VIDYABHŪSANA, M.A., M.R.A.S.

Since time immemorial, India has been hospitable to foreign races.

Variant forms of the word Liechavi.

In the Mahābhārata and Purāņas we read of warlike races entering India from outside, getting admittance into Hindu Society, and

being absorbed in one or other of the four great castes of the Indian people. In this paper, I shall give an account of a race that came into our country, in about the 8th century B.C., and gradually identified itself with the Kşatriya or military caste of Northern India. This race is called Licchavi. The Pali chroniclers have so designated it. In the Brahmanic Sanskrit works the race has been called Nicchivi. The Suvaraprabhāsa-sūtra<sup>1</sup> of the Northern Buddhists designates it as Litsavi. In the ancient inscriptions the variant form Licchivi is found sometimes to have been used, while the Tibetan authors have occasionally named it as Li-tsa-byi.

In the well-known Hindu Socio-religions institute called Manu-The Origin of the Licchavirace. Samhitā the Nicchivis have been reckoned among the Vrātya Kṣatriyas. Manu says: "From the Vrātya Kṣatriyas are born the following trig : Iballa Malla Nicchiri Nata Kartua Khasa and

following, viz.: Jhalla, Malla, Nicchivi, Nața, Karana, Khasa and Dravida."

Now let us examine the meaning of the word Vrātya used by Manu. The word Vrātya has been defined in the Hindu çāstras as signifying one who has lost caste through non-observance of the ten principal Hindu ceremonies (saṃskāras) especially of investiture with the sacred thread. This definition of the word Vrātya shows that the Licchavis, though included in the Kşatriya caste, did not in the time of Manu wear sacred threads nor observe any of the ten principal rites enjoined in the Brāhmaņic çāstras. In fact they were even then regarded as foreigners, and as such did not conform themselves to the rules of Hindu

- 1 Suvarņa-prabhāsa Sūtra, chap II.
- <sup>8</sup> Manusamhitā, chap. X, verse 22.

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Society. They were however even then regarded as a respectable people. In the Jātaka<sup>1</sup> of the Sutta-piţaka, which is a most ancient Pali canonical work of the Buddhists, we read of a barber's son, who desired to marry a Licchavi girl, but was severely reproached by his father for setting his mind on such forbidden fruit as a high-born lady of the Licchavis.

Sanang Setsen, in his history of the Eastern Mongols, says that the Sākya race was divided into three sections, vis., Sākya the great, Sākya the Licchavi, and Sākya the mountaineer. Alexander Csoma de Koros has recorded the same triple division of the Sākya race from Tibetan sources, and has said that Sākya is identical with Scythian. The Licchavis must on this supposition be regarded as a branch of the Scythian race.

Samuel Beal<sup>\*</sup> observes that the scene found at Sānchi (in the Bhupal State) probably refers to the Stūpa raised by the Licchavis over their share of the relics of Buddha. The appearance of the men shows they were a northern race; their hair and flowing hair-bands and musical instruments agree, according to Beal, with the account given of the people of Ku-che. It is stated both in the Pali and Northern Buddhist books that the Licchavis were distinguished for their bright-coloured and variegated dresses and equipages. All the evidence seems, in the opinion of Beal, to point to these people being a branch of the Yue-chi.

I am inclined to believe that the Licchavis came into India immediately from Nisibis, which was, according to Ptolemy, one of the most notable towns of Aria (near modern Herat). In the Manusamhitā the Licchavis are called Nicchibis which, in my opinion, correspond exactly to the Nisibis<sup>8</sup> of Ptolemy. The northern parts of Aria were, according to him, possessed by a people called Nisaioi or Nisibi. I further suppose that the same race has been called by Arrian as Nysaioi. Arrian<sup>4</sup> observes that the Nysaioi were not an Indian race but descendants of those who came into India with Dionysos. The district in which he planted his colony he named Nysaia, after Mount Nysa, and the city itself Nysa. These stories about Dionysos are of course but fictions of the poets. Nysa the so-called birth-place of the wine-god has, however, been identified by M. de St. Martin with the existing village called Nysatta on the northern bank of the rivers of Kabul. Wilson identifies it with, Nissa north of Elburz mountains, between Asterabad and Meshd.

<sup>1</sup> Sigāla Jātaka of the Pali Jātaka, edited by Dr. Fausboll, Vol. 11.

<sup>2</sup> Beal's Buddhistic Records, Vol. 11, p. 67.

<sup>8</sup> McCrindle's Ptolemy, pp. 263, 267, 306, 308, 309, 324, 328.

. <sup>6</sup> McCrindle's Ancient India as described by Megasthenes and Arrian, pp. 178-79.

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This place, he adds, ought to be of Median or Persian foundation, since the nomenclature is Iranian, the name of Nysa or Nisaya, which figures in the cosmogonic geography of the Zend Avesta, being one which is far spread in the countries of ancient Iran. Megasthenes in the 4th century B.C. found in India a race called Nesei. This, I believe, was the same as Nicchibi or Licchavi.

Looking at the celebrated canonical Pali scripture, called Mahā-The Licchavis regard- parinibbāna Sutta, supposed to have been ed as enemies by the rehearsed in the first Buddhist council in Ruler of India. 543 B.C., we obtain an interesting account of

the Licchavis and seven other cognate clans, unitedly called Vajjis. The Licchavis are there represented as living in Vaisali corresponding to the modern village of Besärh, in the Muzaffarpur district. In the first chapter of the work, we find that the great Monarch Ajāta catru, of Magadha. (Behar), the then paramount ruler of India, builds a fort at Patali-grāma and sends two of his Brahmana ministers to consult Buddha, as to the feasibility of subduing or driving out the Licchavis and other Vajjian tribes. Buddha replies to them, saying that so long as the several clans of the Vajjis remained united, they would be invincible. However, in the course of three years (i.e., in 540 B.C.) the aforesaid monarch, Ajātacatru, brought about such a disunion among the several clans that they became very easily conquered. In chap. VI of the afore-mentioned Mahāparinibbāna Sutta we find the Licchavis claiming and actually receiving one-eighth part of the relics of Buddha's body. It was in 543 B.C. that Buddha entered Nirvana, and it was in the same year that the relics of his body became distributed among the Licchavis of Vaiśāli, Mallas of Kusinagara, and others. One of the most interesting facts to be noticed in connection with this episode is that the Licchavis are described there as claiming Ksatriyaship. They are stated there as sending messengers to Kusinārā, saying: "Bhagavān Buddha was a Kşatriya, we, too, are Kşatriyas, so we, too, deserve a part of the relics of Bhagavān's body." Another interesting fact to be noticed is that the Licchavis had, at the time, a republican form of government; they had then no kings, but simply obeyed the orders of their elders.

In the Mahāvamsa, the well-known Pāli chronicle of Ceylon, compil-

The Licchavi dynasty ruling over India.

ed in 431 A.D., we find the descendants of the aforesaid Ajāta-catru reigning in Magadha up to the year 471 B C. It was in this

year that a member of the Licchavi race was installed in the sovereignty of Magadha. It is a curious fact, of Indian history, that the Licchavis, who were looked down as outcastes up to the year 540 B.C., succeeded, so soon as in 471 B.C., to see one of their members elected monarch in

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the capital city of Magadha. In spite of all efforts on the part of Ajāta-çatru and his successors, ágainst the Licohavis, the latter held their own in India, and succeeded in securing the good feelings of the people here. This member of the Licchavi race, who was elected sovereign over Magadha, is named Sisunāga, the founder of a dynasty called Sisunaga. He is stated in the Mahavamsa to have at first been Primeminister to King Naga-dasaka, the last royal descendant of Ajata-catru. There are several atthakathās, or Pali commentaries, on the Mahāvamsa preserved in the ancient monasteries of Ceylon. In the atthakatha of the priests of the Uttara-Vihāra of Anurādhapura it is recorded that Sisunaga was a great statesman, and belonged to a very respectable family of the Licohavis. He reigned in Magadha for eighteen years. His son Kālāśoka reigned twenty-eight years. Kālāśoka had ten sons, who ruled the empire for twenty-two years. It was during the conjoint administration of the sons of Kālāśoka that the Nanda dynasty became powerful in India, and usurped the sovereignty of Magadha. This is a very brief account of the Sisunaga dynasty, supplied by the celebrated Pali Mahāvamsa of Ceylon. The Vișnupurăna of the Hindus gives a slightly different account. We have found that, according to the Mahāvamsa, the Sisunāga kings reigned for only 68 years, from 471 B.C. to 403 B.C. But according to the Vianupurana (Book IV, Chap. XXIV) they ruled over Magadha for 362 years, beginning their reigns a little earlier than at the date fixed by the Mahavamsa. It is scarcely desirable to enter here into any controversy on the subject, but I must say that though the members of the Licchavi race exercised sovereignty over Magadha for a short period only, they left a distinguishable mark in the religious and political history of India. In the Manu-Samhita we have seen that the Licchavis did not strictly observe the Brahmanic rites.

The Licchavis leaving a distinguishable mark in the religious history of India.

The Mahāparinibbāna Sutta, on the other hand, describes them as devotees to Buddha and his religion. In the well-known Divyā-

vadāna (Chaps. III and XI) of the Buddhists of the Northern School we find the Licchavis faithfully serving Buddha on special occasions. In the Cullavagga of the Vinaya-pitaka, and in the Mahāvamsa, we find that, though followers of Buddha, they did not observe the Buddhistic discipline to the letter. It was they who in 443 B.C., having declared some ten indulgences as being allowable to priesthood, brought about the first schism in the Buddhist Church known as the Mahāsamgiti heresy. Ten thousand Licchavi priests received on this occasion the penalty of degradation. In spite of all these, we must acknowledge the Licchavis to be the wisest and most learned representatives of the Buddhist

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community of old. In the celebrated canonical Pali scripture, called Amguttara-nikāya (Book III) we read of two Licchavi youths named Abhaya and Pandita-Kumāraka holding very high metaphysical discussions with Anands, while in the Mahāvamsa (Chap. XCIX) the Licchavi princes of Vaišāli are mentioned as being the typical examples of those who live in peace and harmony. The famous Buddhaghosa of the 5th century A.D., in his Pāli commentary on the Dhammapada (Chap. XVI, verse 7), cites an anecdote in which Buddha is made to hold a very high spiritual conversation with the Licchavi priests of Vaišāli.

The political influence which the Licchavis attained in India did not cease with the termination of their sov-The political and soereignty in Magadha. It is true they were cial influences of the Licchavis. succeeded by kings of the Nanda dynasty, but the people continued to respect them as rulers. The Buddhist works, of both the Northern and Southern Schools, have uniformly designated them as Kumāras, Kumāra being a hereditary title of the Licchavis. Now the word Kumāra is a synonym for Rāja-putra and signifies a prince. In the Gaya copperplate Inscription of Samudra. Gupta, we find that, in about 320 B.C., the celebrated Indian emperor, Chandra Gupta, married Kumāra-devi, who was daughter of a Licehavi prince.1 "That the Licchavis were then at least of equal rank and power with the early Guptas is shown by the pride in this alliance manifested by the latter."

It is curious that kings of Nepal, Tibet, Ladak and Mongolia, too, trace their descent from the Licchavis. In The Nepal branch of accordance with the Vamsavali of Nepal, and the Licchavi race. the inscriptions published in the Indian Antiquary (Vols. IX, XIII, and XIV), we find that the Licchavis gradually attained such a great power and honour in Nepal that they became regarded there as a branch of the Surya-vamsa or solar race. The Nepal kings carry their descent from the sun and come down to Dasaratha. After Dasaratha there are said to have been eight kings in lineal succession, and then there was the illustrious Licchavi. After Licchavi there were some kings and then was born the illustrious king Supuspa. The 24th in descent from him was Jaya-deva I, who has been treated by Bhagavan Lal Indraji as the first historical member of the Licchavi family and the founder of the Nepal branch of it. After Jayadeva I there were eleven kings and then came Vrsa-deva, Samkara-deva, Dharma-deva, Māna-deva, Mahi-deva, and Vasanta-deva. It is unnecessary to enumerate here the numerous kings who succeeded Vasanta-deva. 

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<sup>1</sup> Dr. Fleet, Inscriptions of the early Gupta Kings, p. 256.

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But it is essential to state here that all the kings, succeeding Jaya-deva I, belonged to the Liochavi race. Jayadeva I reigned in Nepal about 330-355 A.D. There was intermarriage existing among the Licchavi families of Nepal and the ruling families of Magadha, Gauda, etc. The inscriptions present us with several instances of double government in Nepal. Thus Amçu-varma and Vrsa-deva were simultaneously ruling in two different places of Nepal. Amcu-varma, who, according to the Chinese pilgrim, Hwen-thsang, belonged to the Licchavi race, reigned in Nepal 635-650 A.D. That the Licchavi tribe was one of great antiquity and power, in the direction of Nepal, is shown by the writings of Fa-hian and Hwen-thsang, which connect them with events that preceded the Nirvana of Buddha. The Licchavi conquest of Nepal is assigned to Newarit, whose age is unknown. Nothing need be said here about the Liechavi rulers of Nepal descending from the sun. All the powerful rulers of India have claimed their descent from either of the two mythical personages named the Sun and the Moon. I consider Surva-vanish and Candra-vamsá as terms of compliment, which were rightly bestowed on the ruling families of India and outside. If there is any honour indicated by the term Sūrya-vamśa, that honour was pre-eminently deserved by the Licchavi rulers of India and Nepal, and it is not at all surprising that they actually received it.

The first king in Tibet was Nya-khri-tsan-po who, according to the

The Tibet branch of the Licchavi race.

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Tibetan books, belonged to the Licchavi race. The 27th in descent from him was Lha-thotho-ri, and the 32nd was Sran-tsan-gam-po.

This last King, who reigned in Tibet, in 627 A.D., had two principal wives—one being taken from China and the other being the daughter of Amsu-varma, the Licchavi king of Nepal.

The rulers of Mongolia and Ladak do likewise claim descent from the Licchavi race. But so many changes have taken place in the ruling families of Nepal, Tibet, Mongolia, Ladak, etc., that it is at present impossible to trace unmixed Licchavi blood in the people of those countries.

Nothing is definitely known to us of the fates of the Indian branch

The Indian branch of the Licchavi race. of the Licchavi race that lived in the early centuries of Christ. With the revival of

Brahmanism in India, in the 7th century A.D., there occurred a thorough re-organization of ancient castes. The Licchavi kingdom of Vaiśāli began probably to accept Brahmanism at this time, and we are not surprised to read the records of Chinese pilgrims (such as those of Hwen-thsang), who say that in the 7th century A.D., Buddhism was on its decline in Vaiśāli and heretical doctrines

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were much prevailing there. Since the 7th century A.D. there have taken place in India so many reconstructions of the ancient castes, made partly on the principle of ethnological, partly philological, partly socioreligious and partly political and other divisions that it is at present impossible to discover a single drop of Licchavi blood in India, without the help of chemical analysis. It has already been said that Vaisali, in which the Licchavis lived in ancient days, corresponds to modern Basarh in the Muzaffurpur district. They gradually dispersed over different places in the districts of Goruckpore, Shahabad, Champaron, etc. It is therefore not altogether improbable that some of the people of the military caste of these districts may bear some remote relationship to the Licchavis of old. Writers of Indian history have not yet made even mention of the Licchavi race in their respective works. The present paper of mine, though extremely meagre, will, I hope, serve to draw the attention of scholars to the investigation of the history of this once most powerful race of India.

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#### The Vrāiya and Samkara Theories of Caste. - By SATIS CHANDRA VIDYI-BHŪŞAŅA, M.A., M.B.A.S.

No institution has exercised a greater influence upon the interests of mankind than that of caste. There was caste among the Egyptians, Colchians, Iberians, Medes, Persians and Etrureans; and in the New World it was found among the Peruvians and Mexicans. It existed among the earliest Attic tribes and Spartans whose trades and occupations were almost all hereditary. The laws of caste also prevailed among the Saxons. It is, however, in India that the caste system has reached its highest development, while in most other countries it has gradually ceased to exist. In India there is a permanent separation of classes with hereditary professions assigned to each, and the most ancient documents regarding the origin of caste are to be found As the subject is being scientifically investigated by the here. Director of Indian Ethnography, I shall in the following pages give only a very brief outline of Vrātya and Samkara castes making only an incidental mention of the original castes.

#### I. ORIGINAL CASTES.

According the Hindu Çāstras, castes may be classified as (1) mūla (original), (2) vrātya (fallen), and (3) samkara (mixed). In India there are four original castes, viz. : Brāhmaņa, Ksatriya, Vaiçya, and Çūdra. Manu\* says :---

"The Brāhmaņa, the Kşatriya, and the Vaiçya castes are the twice-born ones, but the fourth, the Çūdra, has one birth only; there is no fifth caste."

The duties enjoined on the four castes are thus stated by Vaçiethat :---

# \* नासवः चात्रियो वैद्यास्त्रयो वर्धा डिमातयः ।

चतुर्थ एकवातिन्तु जूनो गान्ति तु पच्मः । ( मतुर्वाहता १० । ३) । † बट्कर्माबि त्राद्यबस्य अध्ययुगमधापुनं युगनं वाजनं दानं प्रतिस्हचेति ।

क्तिक त्रविक बेहा मन्देहाच महासुने ।

" **जग-रोपः ।** 👘

भाष्यन-होपः ।

क्षिकाचारकाः पोताः क्रवासित एयक् एयक्। त्राचाबाः चाचिया वैद्याः मूहाचेव यंत्रस्ति तम् । (तिव्युपुराख २ । ३ । ३१)।

चान्धेवाः कुरवचेव विविंद्या माविनच ये । विम-चाजिय-वैद्यात्ते जूहाच सुनितत्तम । (विष्वपुराह २ । १ । १७)।

इन्या-युद्ध-वसिन्याचेर्वत्तैयनाो व्यवस्थिताः । (विस्तुपुराग २ / ३ / ८)। ञ्च दीपः ।

त्राचकाः चाचिया वैद्या मध्ये मूदाख भागग्रः।

पद्यां ग्रहोऽनायत । ( ऋग्वेद १० । ८० । १२ ) । † जम्मु-दीपः ।

बाष्ट राजन्यकृतः । उक्त तरसा बद वैग्राः

\* त्राच्चबोऽख म्रखमाचीव

cattle and may adopt the profession of usury.

serve the aforementioned three castes."

সুরন্থ। ( वण्चिष्ठ संहिता, २व खश्चायः )।

त्रीखि राजन्धस्य अध्ययनं यजनं दानं ज्ञास्त्रेस प्रजापालनं सधर्म्मलेन जीवेतु । रतान्वेव भौखि वैग्रहस्य समिवाखिन्यपासुपाल्यकुसीदस् । रतेमां परिचर्थ्या

#### Supreme Being, in the following way :---"The Brahmana was his mouth, the arms were made Katriya, his thighs were what is called Vaiçya, and the Çūdra sprang from his legs."

According to the Rigveda<sup>\*</sup> these castes sprang from Brahma the

Seven Dripas. These four castes existed in six out of the seven dvipas that were known to the ancient Hindus. In the Viennpurana + we read :---

"The Brahmana must study, teach, offer sacrifice, act as a priest, and give and accept gifts. The Kşatriya should study, offer sacrifice,

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give gifts, and govern and protect people. The Vaiçya should study, offer sacrifice, give gifts and should cultivate lands, conduct trade, tend

The Çūdra should only

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"In Jambu-dvipa (Iudia) there live Brāhmaņa, Ksatriya, Vaiçya, and Çūdra. In Plakşa-dvipa these four castes are named, respectively, Ārya, Kuru, Vivimça, aud Bhāvin. In Çālmala-dvipa they are designated as Kapila, Aruņa, Pīta, and Kṛṣṇa respectively. In Kuça-dvipa they are called, respectively, Damin, Çuşmin, Sneha, and Mandeba. The Puşkara, Puşkala, Dhanya, and Tişpa castes (that represent, respectively, the Brāhmaņa, Kşatriya, Vaiçya, and Çūdra) iuhabit the dvipa called Krauñca. In Çāka-dvipa the Brāhmaņa, Kşatriya, Vaiçya, and Çūdra are, respectively, named as Maga, Maçaka, Mānasa, and Mandaga. In the seventh, called Puşkara-dvīpa, there is no superiority or inferiority among men."

Aryas — In the above we have found that the Brähmanas called Aryas lived in Plaksa-dvipa, probably identified with Ariana (the land of the Arii). Aria (bounded on the north by Margiane and a part of Baktriane, on the west by Parthia and Karmanian desert, on the south by Drangiane, and on the west by Paropanisadai) was a small province included in Ariana, which comprehended nearly the whole of ancient Persia.

Damin, etc.—The Damins were the Brāhmaņas of Kuça-dvīpa (probably identical with Serike mentioned by Greek writers and inhabited by Damnai and other tribes). Çālmala-dvīpa in which the Kapila Brāhmaņas, and Kiauñca-dvīpa in which the Puskara Brāhmaņas lived cannot be identified with accuracy.

I do not know whether there is any particular class of Brähmanas

| त्राच्चयाः चाचिया वैद्या प्रताचानुक्रमोदिताः । (विव्युपुराव २ । ३ । ३८) ।<br>कौच-दीपः ।                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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| एवन्दराः एवन्त्रला धन्यासिव्यासम् मद्दामुने ।                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| ब्राद्मयाः चार्त्तिया वैद्याः मूदाखानुक्रमोदिताः । (विष्णुप्रराख २ । ३ । ५२) ।                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| ध्राज-दीपः ।                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| मगाख मग्रवाखेव मागसा मन्दगालाचा।                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| मया त्राद्मयभूविछा मध्रकाः चात्रिवाचा ते ।                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| वैद्याद्य मागचा चेयाः त्रुहात्तेयां तु मन्दगाः । (विष्णुप्रराख २ । ७ । ७ ) ।                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| umates in the second seco |
| बताबते व तजाकां गोत्तमाधमसध्यमाः ।                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| न वर्वामसम्पर्काच न नवी न च पर्वताः । (कूम्मपुराख ३७ वः) ।                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

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that are specially designated as Arya in India, and whether the Aiyar Brähmanas of Madras have anything to do with the Arya Brähmanas of Plakţa-dvīpa. The Kapila Brähmanas that live in Surat, Broach, Jambusar, etc., cannot also with any degree of certainty be identified with the Brähmanas of that name that lived in Çālmala-dvīpa. I have also got no document to identify the Poşkarana Brähmanas of Marwar, Gujerat, Bikanir, Ramgarh, etc., with the ancient Puşkara Brähmanas of Krauñca-dvīpa. But fortunately for us the Maga Brāhmanas that lived in Çāka-dvīpa can, with a pretty accuracy, be identified with the Brähmans of that name that live in Behar and other provinces of India.

#### Sāka-dvīpi Brāhmaņa.

Maga was the name of the Brāhmaņas of Çāka-dvīpa. In the Sāmba and Bhavişya Purāņas the Magas are described as a class of Brāhmaņas who descended from the disc of the Sun. In the Purāņas<sup>\*</sup> the name Maga is thus derived :---

"The blessed Sun-god is called Ma, and these Brahmanas in virtue of their worshipping Ma are called Ma-ga."

Regarding the origin of the Maga Brāhmaņas we find in the Purāņas (such as Sāmba and Bhavişya) an interesting story, the substance of which is given here: Priyavrata, son of Svāyambhuva Manu, was monarch over seven dvīpas. After his death his son Bhavya became king of Çāka-dvīpa. He constructed a golden image of the Sun and also built a temple for the idol. But as there were no Brāhmaņas competent to consecrate the idol he prayed to the Sun-god himself for doing the work. Then the Sun became absorbed in deep meditation and eight Brāhmaņas suddenly issued out of his body. Immediately after birth they addressed the Sun as father and devoted themselves to the study of the Vedas and Upanishads. Thereafter the Sun-god asked the king to make over the temple to the charge of these Brāhmaṇas, who became worshippers of the Sun. On account of their worshipping Ma (the Sun) they became styled Ma-ga.

Their migration to India is thus described: Once Sāmba, the son of Bhagavān Çrī-Kṛṣṇa, became overtaken by leprosy. Finding no other means of averting the evil he approached Nārada and mournfully related to him the particulars of his disease. Nārada advised him to worship Mitra (the Sun). Accordingly he built a golden statue of the

# \* मबारी भगवानू देवी भाखारः परिकोर्सितः ।

मबार-ध्वान-योगाच मगाज्ञेते प्रवीर्चिताः । (वान्व-धराव २७। २८।

भविषयुराव १८६ चः )।

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Sun and a temple for it. He used to offer worship to the statue every day. By the grace of Mitra, Samba became cured of his leprony. The place in which he worshipped the Sun was called Mitra-vana (the Sungrove) in the Punjab. Then Sāmba became desirous of consecrating the temple and continuing worship of the Sun. Finding that the Brähmanas in India were incompetent to do the work, Sāmba consulted with Nārada and Gaura-makha about the matter. They advised him to bring Brähmanas from Çāka-dvīpa for worship of the Sun. Accordingly, with the consent of his father, Sāmba proceeded to Çāka-dvīpa riding on Garuda. There were eighteen principal families of Maga in Çāka-dvīpa. At the earnest request of Sāmba, members of all these families came to Jambu-dvipa (India) and settled in a city built by Sāmba called Sāmba-pura (Multan). The temple of the Sun was entrasted to them. They consecrated and offered daily worship to the In the seventh century A.D., Hwen-thsang saw in Multan a statue. magnificent temple with a golden statue of the San richly adorned, to which kings of all parts of India sent offerings. From Multan the Magas came to Magadha and gradually scattered themselves all over India. The celebrated astronomer, Varähamihir, who was a Säka-dvipi Brāhmaņa,\* was one of the nine gems in the court of Vikramāditya.

#### Maga and Magi.

According to the celebrated Greek geographer Ptolemy<sup>†</sup> there lived in India in the second century A.D. a class of Brähmanas called Brakhmanai Magoi. The country occupied by these Brähmanas was about the Upper Kaveri, and extended from Mount Bettigo eastward as far as the Batai. According to Mr. J. Campbell Brakhmanai Magoi of Ptolemy meant 'sons of Brähmanas,' that is, Canarese Brähmans, whose forefathers married women of the country, the word Magoi representing the Canarese Maga, 'a son.' Lassen supposed that Ptolemy, by adding Magoi to the name of these Brähmanas, meant to imply either that they were a colony of Persian priests settled in India, or that they were Brähmanas who had adopted the tenets of the Magi; and expresses his surprise that Ptolemy should have been led into making such an unwarrantable supposition.

In my humble opinion the *Brakhmanai Magoi* mentioned by Ptolemy were the same as the Maga Brāhmaņas mentioned in the Purāņas. The word *Magos* was a very honourable title, being equivalent to "Venerable"

<sup>•</sup> Vide Utpala's commentary on the Vrihat-Samhita, and also Dr. Kern's preface to his edition of the book.

<sup>†</sup> McCrindle's Ptolemy, p. 170.

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or "Doctor." It was given by the Akkadians, the primitive inhabitants of Chaldea, to their wisemen, whose learning was chiefly in what we now call astrology and magical arts. The word is found in cuneiform inscriptions. It was adopted by the Semitic inhabitants of Babylon, and from them by the Medians, Persians, and Greeks. The question as to why the Brahmans of Çaka-dvipa were designated Maga has been and may still be answered in many different ways. Some scholars have identified the Çāka-dvīpi Brāhmans called Maga with the Median priesthood called Magi. I am inclined to suppose that the word Maga was a mere title of honour bestowed upon the Brähmans of Çāka-dvīpa under circumstances purely political. It is known to most of us that the title Majumdār (or Majmu-dār) borne by some very respectable classes of the Hindus is a Mahomedan word (composed of Arabic Majmu and Persian suffix  $d\bar{a}r$ ) signifying a record-keeper. I would in the same way believe that the Brahmans in the north-western frontier of India got the designation Maga from the Persian or other foreign rulers.\* It is a wellknown fact that the Indian Brähmans have been designated by Greekwriters as Sophists. Are not Maga and Sophist identical in meaning?

#### Position of Sāka-dvīpa.

Now it is necessary to add here a few words about the probable modern site of Çāka-dvīpa. Çāka-dvīpa may with pretty accuracy be identified with Sogdiana; at any rate the latter was included in the former. The river *Iksu*, that according to the Viṣṇnpurāṇa (Book II Chapter IV) flowed through Çāka-dvīpa, is, in my opinion, identical with the Oxus that according to Ptolemy separated Sogdiana from Baktriana. The name Sogdianat exists to this day, being preserved in Soghd, which designates the country lying along the river Kohik from Bokhara eastward to Samarkand. The records of Alexander's expedition give much information regarding this country, for the Macedonian troops were engaged for the better part of three years in effecting its subjugation.

The Mahābhārata‡ helps us in determining more exactly the site

† McCrindle's Ptolemy, p. 277.

#### <sup>‡</sup> तथ प्रख्या मनंगदाचालारो जोकसम्मताः ।

# म्रगाच मग्रवाचिव मानचा मन्द्रापत्तचा । ६५ ।

<sup>•</sup> Referring to the Indian people living beyond the Indus, Arrian in his Indika (McCrindle p. 179) observes :--

<sup>&</sup>quot;They were in old times subject to the Assyrians, then after a period of Median rule submitted to the Persians, and paid to Cyrus, the son of Cambyses, the tribute from their land which Cyrus had imposed."

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of the original home of the Maga Brāhmans. In the Bhisma-parva, Chapter XI, we find that in Çāka-dvīpa the Brāhmans lived in the province of Mriga (Mrga), Keatriyas in Maśaka, Vaiçyas in Mānasa, and the Çūdras in Mandaga. Mriga mentioned in the Mahābhārata is undoubtedly a Sanskrit name for Margiane mentioned by Greek writers. Pliny says (lib. vi c. xvi) that Margiane was noted for its sunny skies and vines grew there in abundance. It lay confronting a tract of country in Parthia, in which Alexander had built Alexandria. The ancient city of Margiane \* is represented by modern Merv.

#### Sāka-dvipi Ksatriya.

The province called *Maśaka* of Çāka-dvīpa, described in the Mahābhārata as inhabited by Keatriyas, was no doubt the same as *Maisoka* (in Hyrkania) mentioned by Ptolemy.<sup>†</sup>

The Kşatriyas of Maśaka (in Çāka-dvīpa) referred probably to the Massagetai that lived in Margiana, Sogdiana and Sakai, etc. The Massagetai are mentioned by Herodotus (lib. i, c. cciv.), who says that they inhabited a great portion of the vast plain that extended eastward from the Kaspian. He then relates how Cyrus lost his life in a bloody fight against them and their queen Tomyris. Alexander came into collision with their wandering hordes during the campaign of Sogdiana as Arrian relates (Anab, lib. iv cc. xvi, xvii).

#### Antiquity of Sāka-dvīpa.

It should also be noted here that Marakand (nitro), now called Samarakand, which was the metropolis of Sogdiana (Çāka-dvīpa), was

> स्टगा त्राचायभूयिखाः खकमैनिरताक्तचा। मग्रकेषु तु राणन्या धान्मिकाः सर्व्यकासदाः ॥ ३६ ॥ मानसाच मच्चाराज तैग्रसधर्म्मीपजीविनः । सर्व्यकामसमायुक्ताः प्रूरा धर्म्मार्थनिच्चयाः ॥ प्रूषाच मन्दगात्तन पुरुषा धम्मीग्रीजिनः । ३०॥ ( मच्चामारत, मौग्रपर्व्व, १९ग्र चभ्यायः) ॥

\* McCrindle's Ptolemy, p. 264.

† Arrian in his Indika (second century A.D.) observes :-

"In the dominions of the Assakenoi there is a great city called Massaka (probably the same as Maisoka, Masaka, or Massoi), the seat of the govereign power which controls the whole realm" (McCrindle, p. 180).

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well known to the ancient Hindus. In the Vedic literature mention has been made of countries that lay even far off from Samarkand and Merv. Iu the Rigveda (7-18-19) we find mention of Yakau, which is probably identical with the Oxus. In 10-34-1 of the Rigveda mention has been made of the mountain called Mujavat, where Sema plants grew abundantly and at the foot of which lay (according to the Matsyspurāņa, chap. 120-19) the lake called Sailodā, from which sprang the river also called Sailodā. This river is the same as Silis marked on geographical maps as Jaxartes (ukert Geographie der Griechen aud Romer, vol. iii, 21, p. 238), which falls into the sea of Aral. In the Rāmāyana\* we find that the people called Uttara-Kuru lived on both banks of the river Sailodā. The Uttra-Kurus, mentioned by Ptolemy as Ottorokorrhai in Eastern Turkestan, have been described in the Aitareya Brāhmaņa of the Rigveda† thus :--

"In the north, on the other side of the Himālayas, there are the countries called Uttara-Kuru and Uttara-Madra. The people living there use ablution for attaining Brahmahood. The people who make religious bathing in this way are called Virāj."

In the above we have found that the rivers Oxus and Jaxartes, which flowed respectively through the southern and northern extremities of Sogdiana (Çāka-dvīpa), were actually mentioned in the Rigveda—the oldest document of the Hindus. While frequent mentions have been made in the Vedic literature of the people who performed sacrifices, etc., round the Caspian Sea and Sogdiana, we do not there come across a single passage making even the slightest allusion to the people of southern or middle India. It is an undeniable fact that the forefathers of the Brāhmaņas came from the North-West, settled themselves in Brahmāvarta (the Punjab), and gradually migrated towards the south. I therefore would conclude that the Çāka-dvīpi Brāhmaus are the

. तंतु देश्रमतिकम्य श्रैजोदा नाम निम्नगा । उभयोक्तीरयोक्तस्य कोचका नाम वेखवः । ते नयन्ति परं तीरं चिडान् प्रवानयन्ति च । उत्तराः कुरवक्तत्र इतप्रव्यप्रतिश्रयाः ।

(रामायण, किट्यिनन्थाकाण्ड, ४२। २०)।

तस्नाद् रतस्याम् उदीचां दिग्रि ये के च परेग चिमवन्तं जनपदा उत्तरकुरव उत्तरमदा इति वैराव्याय ते चमिषिचन्ते। विराडिलोवान् चमि-वक्तान् चाचचते। (रेतरेय त्राच्यय, ८। १३)। 1902.] S. C. Vidyābhūşaņa—Vrātya and Samkara Theories of Caste. 157

remnants of the most ancient  $Br\bar{a}hmans^*$  that chanted the hymns of the Vedas and Upanisads in the land of *Āryas* in the North-West. The designation *Maga* (wise) acquired by them from Persian or other foreign rulers does not in any way detract the sanctity of these noble  $Br\bar{a}hmans$  of old.

In the Purāņas Çāka-dvīpi Brāhmans have been described as worshippers of the Sun. There is nothing strange in this description. All true Brāhmans are worshippers of the Sun. I give here a translation of the Vedic hymn called *Gāyatrī*,<sup>†</sup> which is obligatory on all best Brāhmans of India to recite every day. It runs thus:—

"I adore that excellent lustre of the Sun-god that sends us intelligence."

#### Graha-vipra.

On the authority of the Brahmayāmala<sup>†</sup> (chap. xiv) some

\* Referring to the region comprising Sogdiana and Bactriana, Herren (Asiatio Nations, 2nd edition, Vol. I, p. 424) writes :---

"It stood on the borders of the gold country, 'in the road of the confinence of nations,' according to an expression of the zend-avesta; and the conjecture that in this part of the world the human race made its first advance in civilisation, seems highly probable."

७ अन्म मुर्गतः खस्तस्वतितुर्वरेष्णं मर्गो देवस्य धोमाइ । धियो यो गः प्रचोदयात् अन् । ( ऋग्वेद १-९२-९०) । इत्रद्दोपे च वेदाप्तिः ग्राकदोपे च सिद्धकः । भूमध्ये च त्रद्धाचारी देवच्चो दारकाग्रदे । दादिष्ठे मैथिले चैव यद्यविप्रेति संच्चकः । बक्दरेग्ने अप्मेवस्ता पाखाले ग्रास्तिसंचकः । सारस्तते ग्रममुखो गान्धारे चिचपस्टितः । तोरहोचे तिथिविप्रो गाटके ऋद्यस्वकः । उद्याने ज्योतिषी विप्रो त्रद्धले विधिकारकः । वम्माटे योगवेत्ता च गिटासे देवयूजकः । राढ़ देग्ने छपाध्यायो गयायां तन्मधारकः । वस्तिक्ने जानविप्तः स्याद् बाचार्य्यो मौड्देग्रके ।

( त्रधायामन, १४ इर पटन) ।

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scholars<sup>\*</sup> have asserted that the Graha-vipras (whose occupation consists in the science of planets) belong to a certain branch of the Sāka-dvīpi Brāhmans. The *Kula-pañji* (family-record) of a certain class of Grahavipras does, in fact, corroborate the assertion. Jyotis çāstra (the science of time and planets) is indeed regarded in the Sūryya-siddhānta as having been first propounded by a person  $\dagger$  who descended from the disc of the Sun (Çāka-dvīpi Brāhmaṇa ?). On the other hand, I should add here that the ancestors of other Graha-vipras  $\ddagger$  were the same as those of other classes of Brāhmans in India. Referring to the Indian Brāhmans, who are designated as Sophists, Arrian § (in the second century A. D.) observes :—

"To this class the knowledge of divination among the Indians is exclusively restricted, and none but a Sophist is allowed to practise that art."

#### II. VRĀTYA CASTES.

In the previous section we have found that each of the four original castes had to observe certain religious rites enjoined on it by Çāstras. Those members of the first three castes who would not observe these rites, specially those who failed to invest themselves with the sacred thread at the proper time, had to be degraded from their community. These unfortunate members were called  $Vr\bar{a}tya$  or fallen.  $Vr\bar{a}tya$  is thus defined to be a Brahmana, Katriya or Vaiçya who has lost caste through non-observance of Çāstric rites. In the Manu-samhitā || the word Vrātya is thus defined :--

"Those children whom the twice-born beget on wives of equal caste, but who, not fulfilling their sacred duties, are excluded from the Sāvitrī (investiture with the sacred thread), one must designate by the appellation Vrātyas."

• In this connection vide Mahāmahopādhyāya Hara Prasad Sāstri in the Proceedings of the Asiatic Society of Bengal, December 1901, and Babu Nagendra Nath Vasu in Banger Jātiya Itihāsa.

† न ने तेजःसङ्गः कस्तिदु बाख्यातुं नान्ति ने छायाः ।

# मदंग्रः पुरुषोऽयं ते निःग्रेषं कचयिष्ठति । ( सूर्य्यसिद्धान्त, १ । ६ ) ।

<sup>‡</sup> The Sarajupāri Graha-vipras came to Bengal from Oudh (vide their Kulapafijī).

§ McCrindle's Megasthenes and Arrian, p. 209.

|| दिजातयः सवयासि जनयन्यत्रतांस्तु यान् ।

तान् सावित्री-परिष्मछान् बात्या इति विनिर्दिग्रेत् 🛚 👘

(मनुसंदिता १० । २०) ।

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In the Vedic literature, however, the word Vrātya bears a wider signification. There we find that all people—whether natives of India or foreigners—who were not within the pale of Brāhmanic civilization were also included among the Vrātyas. In the Tāndya Mahābrāhmaņa of the Sāmaveda (chapter 17, section 4) the Kausītakis \* have been specially noted as Vrātya and Yajñāvakīrņa. The 17th chapter of the Tāndya Mahābrāhmaņa of the Sāmaveda † begins with the description of the following myth regarding the Vrātyas :--

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"When the Devas ascended to Svarga some of their fellow-brethren still wandered on earth as Vrātyas. These latter being afterwards desirons of joining their fortunate brethren, came to the spot whence they had ascended to Svarga, but owing to their ignorance of the hymn (Vedic), they could not accomplish their object. The Devas, sympathising with their less fortunate brethren, asked Maruts to teach them the necessary hymn. The Vrātya Devas, having thus learnt the hymn called *Sodaça* with the metre called *Anuştubh*, ascended subsequently to Svarga."

The above, I think, is a mere allegorical way of describing how feesigners became from time to time incorporated in the society of Brähmans by learning the Vedic practices.

I have already referred to the fact that most parts of Central and Western Asia were known to the Hindus. In the 5th Book of the Atharva-veda  $\ddagger$  we further find that to the Brāhmans of ancient India,

\* रतेन ते ... ... तसात् कौमोतकोनां न कच्चन चतीव जिष्टीते यच्चावकीर्या दि । २ । (ताख्यमङात्राच्चाय १७ । ८ । २ ) ।

† देवा वे सगें जोकम् खायंक्तेषां देवा खशीयना त्राखां प्रवसनाका धागच्छन् यतो देवाः सगें जोकम् खायंक्तेन तं क्तोमं न इन्दोऽदिन्दन् येन तान् भाष्यं को देवा मबतोऽबुवन् रुतेभ्यक्तं स्तोमनाम्हन्दः प्रायच्छत येन सम्मात् धाप्रवानिति तेभ्य रुतं षोड़ग्रं क्तोमं प्रायच्छन् परोच्चमनुरुमं ततो वे ते तानाप्न-बान् इति तेभ्य रुतं षोड़ग्रं क्तोमं प्रायच्छन् परोच्चमनुरुमं ततो वे ते तानाप्न-

वन् । ९ । (तायहा-मङात्राच्याया १०ग्र जध्यायः)।

‡ सोको यस मूजवन्त सोको यस महारुषाः । यावच्जातस्तकां सावागसि वज्जितेषु न्योचरः ॥ ५ ॥ गन्धारिभ्यो मूजवद्योऽक्रेभ्यो मगधेभ्यः । प्रैष्यं जनसिव ग्रेवधिं तक्यानं परिदग्नसि ॥ ८ ॥ (सप्रर्व्तसंहिता ५ । २२) ॥ 160 S. C. Vidyabhusana-Vrātya and Samkara Théories of Caste. [No. 2,

Gandhāris, Mūjavants, Çūdras, Mahāvrsas and Vāhlikas in the North-West were not less known than the Angas and Magadhas in the east.

In the 15th Book of the Atharva-veda called Vrātya-kāņda\* the Vrātyas have been greatly extolled. Thus we read :---

"He, in whose house a learned Vrātya puts up for a single night, acquires mastery over all the pious people of this world. He, in whose house he resides for two nights, becomes chief among all the pious people of the sky. He earns all the virtues of heaven, in whose house a learned Vrātya resides for three nights. He is certainly destined to be supreme among the virtuous of the virtuous, in whose house the learned Vrātya becomes guest for four nights. He will certainly gain immeasurable virtue, in whose house the Vrātya will live for innumerable nights."

The Vrātya Kāņda† of the Atharvaveda ends thus :---

"I bow down to the Vrātya in the west by day and to the Vrātya in the east by night."

Māgadhas or the people of Behar have been repeatedly mentioned in the Vrātya Kānda. As the Vrātya people referred to in the Vedic literature cannot, owing to distance of time, be identified with the people of modern India I shall illustrate my theory of the Vratya castes by references to the Manusamhita, &c., the present recensions of which were, according to scholars, prepared about the 1st century A.D.

\* तद् यस्थैवं विदान् त्राख एकां राजिमतिथिई वसति ॥ ९ ॥ ये एथियां प्रस्ता जोकासानेव तेनावबन्धे ॥ २ ॥ तद् यस्थैवं विदान् त्रात्यो दितीयां राजिमतिथिई वसति ॥ ९ ॥ ये चन्तरित्तो प्रस्ता जोकासानेव तेनावबन्धे ॥ ९ ॥ तद् यस्थैवं विदान् त्रावस्त्रुतीयां राजिमतिथिई वसति ॥ ९ ॥ ये दिवि प्रस्ता जोकासानेव तेनावबन्धे ॥ ९ ॥ तद् यस्थैवं विदान् त्रात्यसुर्थीं राजिमतिथिई वसति ॥ ९ ॥ ये प्रस्तानं प्रस्ता जोकासानेव तेनावबन्धे ॥ ९ ॥ तद् यस्थैवं विदान् त्रात्यसुर्थीं राजिमतिथिई वसति ॥ ९ ॥ ये प्रस्तानं प्रस्ता जोकासानेव तेनावबन्धे ॥ ९ ॥ तद् यस्थैवं विदान् त्रात्याद्वानेव तेनावबन्धे ॥ ९ ॥ व प्रस्तानं प्रस्ता जोकासानेव तेनावबन्धे ॥ ९ ॥ तद् यस्थैवं विदान् त्रात्योऽपरिमिता राजीरतिथिई वसति ॥ ९ ॥ (चयर्व्यसंदिता १९ प्रा काख, र चनुवाक) ॥ † चन्ना प्रसन्ध त्रात्यो राज्या प्रान्ध नमी तात्याय ॥ ९ ॥ (१९ ॥ २) ॥

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Manu affords us a pretty long list of the Vrātya people. In his list of Vrātya Brāhmans<sup>\*</sup> we find the following people :---

Vrātya Brāhmaņa.—" From the Vrātya Brahmaņa spring the wicked Bhrjja Kaņţaka, the Āvantya, the Vāţadhāna, the Puşpadha, and the Çaikha."

In reality these people were distinctly foreign or aboriginal races.

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Avantya.—Referred to in Baudhāyana (1, 2, 13) was probably the name of the Brāhmaņa inhabitants of Avanti (Ujjain). The probable reason of the Āvantyas being designated Vrātyas is that they were greatly influenced by Buddhism. Avanti, which formed the western part of the great kingdom of Malwa, was ruled by the eldest sons of the Buddhist emperors of Magadha. Thus Aśoka, who was emperor of Magadha, had at first been ruler of Avanti. So also was Aśoka's son Mahinda prince of Avanti. It is a well-known fact that the priests of Avanti took a prominent part in the great second Buddhist convocation about 443 B.O. In fact, Brāhmanism did not properly flourish in Avanti until about 71 B.C., when it declared independence of Malava. We can therefore fairly conjecture that the inhabitants of Avanti were called Vrātyas, owing to their leaning towards Buddhism.

Vāţa-dhāna.—Enumerated among the northern tribes, is probably the same as Vețhadina or Vețha-dipa described in the canonical Pali works. According to the Maha-parinibbăna-sutta the Brahmaņas of Vețha-dipa were devotees to Buddha and his religion. In chap. VI of the work it is distinctly stated that, on the demise of Buddha in 548 B.C., the Brāhmaņas of Vețha-dipa claimed and actually received 8th part of the relics of his body on which they built a great stūpa. Vețha-dipa was situated in or near the district of Sahabad. We can thus well imagine why the Vāţa-dhānas or Brāhmaņas of Vețha-dipa were called Vrāţyas.

Vrātya-Ksatriya.-Among the Vrātya-Ksatriyas † Manu includes

\* त्रात्वात् तु जायते विम्रात् पापात्मा स्टब्जकाय्टक्रः । चावन्य वाटधानौ च पुष्पधः ग्रेख एव च । ११ ॥

(मनुषंदिता, १• भः).

† अस्तो मस्तव राजन्याद् त्रात्वात्रिच्छिविरेव च ।

नटच्च करबच्चेव खतो द्रविड़ रुव च। २२। ग्रनकैंच्छ किया कोपादिमाः च्चचिय जातयः। रुवकत्वं गता कोके बाच्चयादर्थनेन च। ४३।

(मनुर्ताष्ट्रता, १० वः)।

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the Jhalla, the Malla, the Nicchivi, the Nață, the Karana, the Khasa, and Dravida. He further says: "In consequence of the omission of sacred rites and of their not consulting Brāhmanas, the following Kşatriyas have gradually sunk in this world to the condition of Çūdras; viz., the Panndrakas, the Audras, the Dravidas, the Kāmbojas, the Yavanas, the Çakas, the Pāradas, the Pahlavas, the Cinas, the Kirātas, and the Daradas."

It is scarcely necessary for me to observe here that most of the tribes mentioned by Manu as Vrātya Ksatriyas were foreigners. A few there are who were aborigines of India. Regarding each of these tribes a short note is added below :---

Jhalla.—This tribe still lives in Northern India under the name of Jhal.

Malla.—The Mallas were a Buddhist people that, according to the Mahāparinibbāna-sutta, lived in Pāvā and Kusināra in the district of Gorackpore. Megasthenes and Pliny mention them as Malli, \* in whose country was mount Mallus, bounded by the Ganges.

Nicchivi.—The same as Licchavis, who, according to the Mahaparinibbāna-sutta, lived in Vaišāli (moden Basārh) in the district of Muzzaffarpore. They were powerful in the 5th century B.C. Samuel Beal is inclined to identify them with a branch of the Yue-chi race + that lived in the western border of China. But I think the Nicchivis were the same as Nisibis or Nysaioi mentioned by Ptolemy and Arrian. They lived in Nysa, or Nissa north of Elburz mountains, between Asterabad and Meshd. In the 4th century B.C., Megasthenes saw in India a race called Nesei (probably the same as Nisibi, Nicchivi, or Liochavi). In the Ballāla-charita chap. XVIII, the Nicchivis have been regarded as pure Kşatrāyas and designated as Nikubhas.

Nata.—The Nats,‡ who, according to Wilson, correspond in their habits with the Gipsies of Europe, live in the districts of Bhagalpore, Gazipore, Oudh, Marwar, Kattywar, &c. The Natas were, I think, a branch of the nomadic people of Sakai (in Central Asia).

Karana.—The Karanas were probably the same as the people of Khaurana who, according to Ptolemy, lived in Skythia in Central Asia. The word Korano that is found inscribed on old coins is probably the same as Karana. According to Samuel Beal§ Korana and Kushāna are

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<sup>\*</sup> McCrindle's Megasthenes, p. 135.

<sup>+</sup> Beal's Buddhistic Records, Vol. II, p. 67.

<sup>1</sup> Sherring's Hindu Tribes and Castes, Vol. I, p. 387, and Vol. II, p. 227.

<sup>§</sup> Kanishka was king of the Yuei-chi, and the rise of his dynasty is placed by Chinese authors in the 1st century B.C. On his coins he is styled in the corrupt

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only different forms of the same word. Now the Kushāna tribe, to which King Kanishka belonged, has been designated by Chinese authors as Kwei-shwang, which was a branch of the very powerful race called by Chinese writers as Yuechi that lived in Central Asia on the Chinese borders. It is therefore not altogether improbable that Karana, Korana Kushāna, Kwei-shwang, and Khaurana were names of one and the same tribe that lived in Central Asia.

Now Karana is the name of a well-known Indian caste. People belonging to that caste live in various parts of India, occupying social position below the Rajputs.

The people called Karana also live in the eastern hills of Assam, in Burma, and Siam.

Khasa.—The Khasas came from Kasia (Kashgar?) in Skythia (in Central Asia) and settled in large numbers in the Upper Panjab, where they were, according to the Baddhist chronicles of Ceylon, subdued by Asoka about 260 B.C. They were chief among the mountain tribes that, according to the Rājatarangiņī, bordered on Kāśmīra.

McCrindle observes :--

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"Baber knows also that a people of the name of Khas is indigenous to the high valleys in the neighbourhood of the eastern Hindu-Koh; and with every reason, we attach to this indigenous people the origin of the name of Kāshgar, which is twice reproduced in the geography (of Ptolemy) of these high regions.\*

The Khasas live in great number in Northern India under the name of Khas or Khasiya. Referring to the Khasiyas, Rev. Mr. Sherring† observes :-

"This is an extensive tribe of Rajputs inhabiting the hill country of Garhwäl, Kumaon, and Dehra Dün. Their right to the rank of Rajputs is questioned by some Hindus......The natives of Kumaon look upon the Khasiyas as the oldest inhabitants of the province."

Dravida.—The Dravidians of Southern India, consisting of innumerable tribes of diverse social positions, have been collectively designated as Katriyas (Vrātya) in as much as they were noted for their valour even before the rise of the Andhra, Chola, Pāņdya, and other dynasties.

Greek legends as Kanyski Korano, and in the Baotrian Pali legends and Mani Kyëla inscription he is called Kanishka the Kushänn, or "of the Gushāna family" connecting him with the tribe called by Chinese Kwei-shwang. Korano and Kushāna are only different forms of the same word. (Beal's Becords, Vol. I, p. 50, note.)

\* McCrindle's Ptolemy, p. 394.

+ Sherring's Hindu Castes and Tribes, Vol. I, pp. 242-43,

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**Paundraka.**—The ancient people of Pundra-bardhana corresponding to modern Dinajpur and Maldah in Northern Bengal. The worst specimens of the Paundrakas still live in Northern Bengal under the name of Pudo.

Audra.—The people of Orissa.

Kāmboja.—The Kāmbojas were the people that inhabited the Hindu Kush mountain, which separates the Giljit valley from Balkh.

Yavana.—Probably the Bactrian Greeks. The Yavanas are mentioned in the Mahābhārata (Sabhāparva, Chap. 32) and Viṣṇupurāṇa, etc.

*Çaka.*—The people of Sakai bounded on the west by Sogdiana, on the north and east by Skythia, and on the south by Imaos (Boloor chain). According to Ptolemy<sup>®</sup> the country of Sakai was inhabited by nomads. They had no towns, but dwelt in woods and caves. The principal tribes living in Sakai were (1) Karatai, (2) Komaroi, (3) Komedai, (4) Massagetai, (5) Grynaioi Skythai, (6) Toornai, (7) Byltai, etc.

Pārada.—Pāradas were probably the people of Paradene in Gedrosia (Baluchistan).

Pahlava.—Probably the people of Parthia. They are mentioned in the Mahābhārata (Sabhāparva, Chap. 32). In the Viṣṇn-purāṇa† they are described as a Vrātya Kṣatriya race conquered by Sagara and sentenced by him to wear beards. The Vallabhi gowalas of the present day may perhaps be traced to the pastoral tribes of the Pahlavas.

Cina.—The people of China,

Kirāta.—The Kirātas are a flat-faced people (decisively Mongolian in appearance) that are very numerous in Sikkim, east Nepal, Darjeeling, etc. According to Ptolemy Kirrhadia or the residence of the Kirātas lay in the east-north-east frontier of India notably in modern Tipperah. But in reality Kirrhadia included Sylhet, Assam, Kooch Behar and Rungpore too. McCrindle<sup>+</sup> observes :—

"Although the Kirāta, long before the time in which he (Ptolemy) lived, had wandered from their northern fatherland to the Himālaya and thence spread themselves to the regions on the Brahmaputra, still it is not to be believed that they should have possessed themselves of territory so far south as Caturgrāma (Chittagong), and a part of Arakan. We can therefore be scarcely mistaken if we consider the inhabitants of this territory at that time as a people belonging to further India, and

+ Wilson's Vișnapurăna, p. 875.

<sup>\*</sup> McCrindle's Ptelemy, pp. 283-84.

<sup>1</sup> McCrindle's Ptolemy, p. 198.

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in fact as tribal relatives of Tamerai, who possessed the mountain region that lay back in the interior ...,."

Darada.—The Daradas, mentioned in the Mahābhārata and Rājataraŋgiņi, were the people of Dardistan. They inhabited the mountain region which lay to the east of the Lambatai and of Souasteneg and to the north of the uppermost part of the course of the Indus along the north-west frontier of Kāśmira. McCrindle\* observes :--

"This was the region made so famous by the story of the gold-digging ants first published to the west by Herodotus (lib. iii, ccii) and afterwards repeated by Megasthenes, while version of it is to be found in Strabo (lib xv, ci 44), and in Arrian's Indika (sec. 15) and also in Pliny (lib. vi, cxxi and lib. xi, cxxxvi)."

Vrātya Vaiçya.-Referring to the Vrātya Vaiçyas Manu says:-

"From the Vrātya Vaiçya caste are born Sudhanvan, Cārya, Kārūṣa, Vijanman, Maitra and Sātvata."

Nothing is known about the people mentioned here. A little that is known about Kārusa is noted below.

 $K\bar{a}r\bar{u}sa$ .—The people called Kārūsa are mentioned in the Visnupurāņa (Book II, Chap. III). In the Mahābhārata we find that King of Karūsa† attended the sabhā of Yudhisthira. Some identify Kārūsa with a part of the district of Shahabad, but I think the people called Kārūsa were the same as Calissae that, according to Megasthenes (McCrindle, p. 137), lived beyond the Ganges.<sup>‡</sup>

From the above it is evident that the people of Parthia, Paradene, Balkh, Sakai, Skythia, Sériké, China, Dardistan, Nepal, Sikkim, Behar, Orissa, Northern Bengal, Southern India, Kirrhadia, etc., have all been called Vrātyas or non-observers of Vedic rites. In fact the foreigners and aborigines who were not followers of Brāhmanism were called Vrātyas.

\* McCrindle's Ptolemy, p. 107.

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† प्रिइर्पासः सइसतः कारूवाधिपतिसचा।

# रुष्डीयां चैव दुईयाः कुमारा देवरूपियः ॥ ९८ ॥

# (महामारत, समापर्व 8 बः)

1 Mr. Pargiter observes :--

Kārūşa, therefore, was a hilly country and lay south of Kasi and Vatsa between Cedi on the west and Magadha on the east, and enclosing the Kaimur hills, which are part of the Vindhyas; that is, it comprised all the hilly country of which Rewa is the centre, from about the river Ken on the west to the confines of Vihar on the east. It would have touched Chedi on its north-west and Dasārna on its west (Jou nal, A. S. B., Part I of 1895, p. 255-56.)

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**Vrātya-stoma.**—In the first paragraph of this section the distinction between a pure caste and a Vrātya caste has already been indicated: It now remains to give a short account of the sacrifice by which a Vrātya could be admitted into a pure caste. In the Tāṇḍya-pañcavimça Brāhmaņa of the Sāmaveda this sacrifice called Vrātya-stoma has been described at length. It is of various kinds, of which two may be mentioned here. The first, called *Hīna-vrātya*, was a sacrifice that was performed for the conversion of the unfranchised people, and the second, called *Gara-gir*, was that for the re-admission of the degraded enes.

The people called Hina-vrātyas<sup>\*</sup> are thus described in the Tāņdya-Mahābrāhmaņa: "Verily the Hina-vrātyas are those who wander on earth as Vrātyas do not practise Brahmacaryya, do not till land, nor carry on trade."

The Gara-girst (lit. 'swallowers of poison') are thus described: "Those are called Gara-gir who eat the food to be eaten by Brāhmaņas, who though not abused complain of being abused, who punish those not deserving punishment, and who though not initiated speak the language of the initiated."

In the Tāņdya-Mahābrāhmaņa of the Sāmaveda and Çrauta-Sūtra of Lātyāyana it is stated that the Vrātya householder who wishes to perform the Vrātya-stoma‡ should secure a turban, a whip, a small

\* धोगा वा रते हीयन्ते ये वात्यां प्रवसन्ति गहि ब्रह्मचर्थ्यं चरन्ति व इत्यिं न वखिआयां बोड्ग्रो वा रतत स्तोमः समात्यमईति ।

२। (ताखानहात्राद्धाय १९ सः, १ खग्छ)।

† गरगिरो वा एते ये ब्रह्माद्यञ्चन्यमज्ञमदन्ति खदुरुक्तवाक्यं दुरुक्तमाडः बदख्यान् दखेन प्रनाखरन्ति खदौद्धिता दौद्धितवाचं वदन्ति..... ॥ ८॥

(तागढामइावाद्याय १७ । १) ।

Vide in this connection Rājārām Rām Krishna Bhagavat's article named "A chapter from the Tāndya-Brāhmaņa" in the Journal of the Bombay Branch of the Boyal Asiatic Society, Vol. XIX of 1895-97.

‡ उम्बोमिस प्रतोदस ज्या झोड़स विषयस कलकास्तोर्थः काखाग्रं वासः काख्यवलचे चजिने रजतो निष्ठास्तद ग्रहतेः ॥ १८॥

(ताराइनमज्जात्राच्च १७ । १) ।

वसूकान्तानि सामत्रवाखीतरेवां दे दे रामनो दे दे उपान ही दिवं हितानि वजिनानि ॥ तद् स्टइमतेरित्वेवत् सन्तें स्टइपतिराहरेत् त्रयस्तिं-भगवा १९ । (तांखामहात्राद्वाय १७। १ ९५॥

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bow (without arrows), a chariot (with boards), a cloth (with black borders), two pieces of woollen garment, a silver coin, a pair of black shoes (with ears), thirty-three cows, etc.

As soon as the sacrifice is performed he should give these things to his old brethren who still remain Vrātyas or to a contemptuous Brāhmaņa of the province of Bihar (Brahma-bandhu Magadhadesiyāya). It is further stated that there should be at least thirty-three Vrātyas for performing this sacrifice. When such a sacrifice was performed the Vrātyas, having secured the rights and privileges of the twice-born castes, might afterwards learn the Vedas, perform sacrifices, receive presents and dine with Brāhmaņas without being required to submit to penance. This is a very brief account of the Vrātya theory. It is, however, necessary to add here a few words about the "contemptuous Brāhmaņs" of Vihāra (Magadha) who used to accept the gifts given by Vrātyas. I suppose these Brāhmaņas are now-a-days called Agradānis.

Agradāni Brāhmaņa.—According to the Brahmavaivarta Purāņa the Agradānis are a class of degraded Brāhmaņas who receive presents or take things previously offered to the dead. In the present days the Agradāni Brāhmaņas receive in the Preta Çrāddha or obsequious ceremony such presents as sofas, wooden shoes, calves, gold pieces, sesamum seeds, &c. They also receive all gifts in the Prāyaścitta (or the ceremony for expiation of sins). Now, this Prāyścitta is nothing but a Vrātyastoma. I am therefore inclined to believe that the Agradāni Brāhmaņs of the present day are descendants of those Brāhmaņs of Vihar (Brahmabandhu Magadhadeśīya) who used to accept gifts from the Vrātyas in the days of composition of the Tāņdya-Mahābrahmaņa and Lātyāyana Çrauta-Sūtra.

It is very difficult to say at what period the Vrātya-stoma became stopped in India. Perhaps the real truth is that it was never stopped. It still continues in a modified shape under the name of *Prāyaścitta*. But the rigidity of the Hindu society of modern times forms a strong contrast to the flexibility of that of the ancient days. Social exclusiveness perhaps commenced in India with the Mahomedan invasion of the country in the 9th century A.D.; for, even as late as about the 7th century A.D. the Huns and other foreigners had been incorporated in the Hindu society and ranked as Ksatriyas.

त्रात्वेभ्यो त्रात्वधनानि ये त्रात्वचर्य्याया चाविरताः स्युः वद्भवन्धवे वा मगधदेश्रीयात्र यस्ता एतद्दति तस्तिद्वेव न्टजाना यन्तौति झाइ ॥ १८ ॥ (लाद्यायनोये अजीतस्त्रेच ८ । इ) ॥

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#### III. SAMKARA CASTES.

In later Sanskrit works the word Vrātya is very seldom found. The term that repeatedly occurs here is *Samkara*. It is thus defined by Manu<sup>\*</sup>:--

"By adultery committed by persons of different castes, by marriages with women who ought not to be married, and by neglect of the duties prescribed by Sāstras, are produced children who are called Varna-Samkara (or simply Samkara)."

Thus, according to tradition, Samkara signifies those castes that are said to have been produced by a mixture of different castes. As the mixture can take place in innumerable ways the number of mixed castes is unlimited. Thus the four original castes by intermarriage can give rise to twelve mixed castes. These twelve by mixture among themselves and with the four original castes may produce hundreds of other castes. In this way the mixed castes may be multiplied infinite-fold. This is a very brief statement of the traditional theory. My own theory about the Samkara is quite different. In my opinion, the Vrātya and other people, having entered the hierarchy of Brahmanas, were called Samkara. The Samkaras were, in fact, the people (foreigners or aborigines) who entered the Brāhmanic society at a comparatively late time. Let me illustrate my theory by reference to the Samkara castes mentioned in the Manusamhita (Book X). The Samkara castes which, according to Manu, were produced from parents of different castes are shown below with a short note of mine appended to some of them :-

Ambaştha—is, according to Manu, son of a Brāhmaņa father and Vaišya mother. But in all probability the Ambaştha is identical with the tribe called Ambautai that, according to Ptolemy, lived in paropanisadai (in Ariana) in the eastern part of the Hindu Kush mountain. Lassen thinks that these Ambautai may have been connected in some way with the Ambastai that lived round the country of Bettigoi. The locality of the Ambastai is quite uncertain. In Yule's map they are placed doubtfully to the south of the sources of the Mahānadī of Orissa. According to McCrindle<sup>+</sup> the Ambastai represent the Ambaştha of Sanskrit, a people mentioned in the Epics, where it is said that they fought with the club for a weapon. In the time of Alexander tribes of Ambaşthas lived in the Punjab (McCrindle's Megasthenes, p. 149).

Nişāda.—According to Manu, son of a Brāhmaņa father and Sūdra mother. But in reality Nişāda was the name of an aboriginal people of

\* धनिचारेख वर्धांनामवेद्यावेदनेन च ।

सवामीयाच त्यागेन जायनो वर्वसङ्गराः । २३ । (मनुसांहता १० घः ।

† McCrindle's Ptolemy, pp. 160-161.

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India mentioned in the Nirukta (3-8). In the Lāţyāyana-Çrauta-Sūtra (8-2-8) mention has been made of *Nişāda-qramas* (villages possessed by Nişādas). In the Rāmāyana (Ayodhyā kānda 50) we find that Guha, the lord of Niṣādas, who reigned in Sringaverapura was so pious that he showed hospitality to Ramachandra during his exile in the forest. Some say Sringaverapura lay in Berar; others think it was situated in the neighbourhood of the district of Mirzapore, while a third class of scholars identify it with Sungroor.

Pārasava.-Same as Nişāda.

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Ugra (Åguri).--Son of a Kşatriya father and Südra mother.

Avrita.—According to Manu, son of a Brāhmaņa father and Ugra mother. Avrta is perhaps the same as Abaortæ that, according to Megasthenes, lived beyond the Indus towards the Caucasus. McCrindle (Megasthenes, p. 149) observes :—

"The Afghan tribe of the Afridis may perhaps represent the Abaortæ."

Abhīra.—According to Maun, son of a Brāhmaņa father and Ambaştha mother. In reality the Abhīras (the Ahirs of common speech) were the pastoral tribes that inhabited the lower districts of the northwest as far as Sindh. The country of the Ābhīras was called Abiria (in Indo-Soythia) that lay to the east of the Indus above where it bifurcites to form the delta. Some scholars maintain that Abiria was the same as Ophir of the Christian Scriptures.\* According to the Vianupurāņa (Book IV, Chap. 24) the Abhīras conquered Magadha and reigned there for several years.

 $S\bar{u}ta$ .—According to Manu, son of a Kşatriya father and Brāhmaņa mother. But Sūta was perhaps the same as Setæ that, according to Megasthenes, lived in the neighbourhood of Dardistan.

Vaidehaka.—According to Manu, son of a Vaiçya father and Brāhmaņa mother. But Vaidehakas were perhaps a tribe of the aborigines of Videha (Darbhanga).

Candāla.—According to Manu, son of a Sūdra father and Brāhmaņa mother. This was in reality the name of the ferocious aborigines of India

Māgadha.—According to Manu, son of a Kşatriya mother and Vaiçya father. This was probably an aboriginal tribe of Behar.

Ksattri.—According to Manu, son of a Südra father and Kşatriya mother. But according to Greek writers† the people that held the territory comprised between the Hydraotes (Rāvi) and the Hyphasis (Biyas) were the Kathaioi (or Kşatriaioi) whose capital was Sangala. The name is still found spread over an immense area in the north-west of India, under forms slightly variant. A tribe of the Kşattris named

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Kāthis, issuing from the lower parts of the Punjab, established themselves in Surāstra, and gave the name of Kāthiabad to the great peninsula of Gujerat.

Ayogava.—According to Manu, son of a Südra father and Vaisya mother.

Dhigvana.—According to Mann, son of a Brāhmana father and Ayogava mother.

Pukkasa.—According to Manu, son of a Nişāda father and Sūdra mother.

Kukkutaka.-Son of a Südra father and Nisäda mother.

Svapāka.—Son of a Kentri father and Ugra mother.

Vena.-Son of a Vaidehaka father and Ambastha mother.

Sairandhra.-Son of a Dasyu father and Ayogava mother.

Maitreyaka.-Son of a Vaidelia father and Ayogava mother.

Kaivarta.—According to Manu, son of a Niṣāda father and Āyogava mother. But the Kaivartas were perhaps a tribe of the original inhabitauts of Bengal, etc. In the Rāmāyaņa (Ayodhyākānda 83) they are desoribed as moving in cow-carts and (in the Ayodhyākānda 84) as possessors of five hundred boats.

Mārgava.-The same as Kaivarta.

Dāça.—The same as Kaivarta.

Kārāvara.-Son of a Nişāda father and Vaideha mother.

Andhra.—According to Manu, son of a Vaidehaka father and Kārāvara mother. The Andhras were perhaps the same as Andharæ mentioned by Megasthenes as living near the upper Narmadā (McCrindle, p. 138).

Meda.-Son of a Vaidehaka father and Nişāda mother.\*

Pandusopaka.-Son of a Candala father and Vaideha mother.

 $\bar{A}hindaka$ .—Son of a Nişāda father and Vaideha mother.

Sapāka.—Son of Caņdāla father and Pukkasa mother.

Antyāvaśāyin.-Son of Candāla father and Nisāda mother.

In the above we have found that the so-called mixed (Samkara) castes are not mixtures of different castes, but are 'integral races of people whose ancestors were either aboriginal inhabitants of India or intruders from outside. I may also cite here a few instances of castes that had previously been regarded as Vrātyas, but in later days were reckoned as Samkaras. We have already seen that the Karaņa, Pauņdraka, Malla, &c., were regarded by Manu as Vrātya Kşatriyas. But in later Sanskrit

\* The Monghyr inscription, which belongs to the earlier part of the Sth century, also names the *Meda* as a low tribe of this region (Asiatic Researches, Vol. I; p. 126, Calcutta, 1788), and, what is remarkable, their name is found joined to that of the Andhra, precisely as in the text of Manu (McCrindle's Megasthenes, pp. 133-134).

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works they have been regarded as mixed castes. Thus in the Brahmavaivarta Purāņa the Karaņa is mentioned as having been boru of a Vaiçya father and Sūdra mother, the Paundraka from a Vaiçya father and Çundi mother, and the Malla from a Leta father and Tibara mother. The Bharjjakantakas, who, we have seen, were regarded by Manu as Vrātya Brāhmaņas, have been described in the Gautama Samhita (Chap. IV) aş a mixed caste born from a Brāhmaņa father and Vaiçya mother. The Yavanas, who were regarded by Manu as Vrātya Kşatriyas, have been described in the Gautama-Samhitā as a mixed caste born from a Kşatriya father and Sūdra mother. The Kirāta mentioned in the Manusamhita as Vrātya Kşatriya has been described in the Ballalacharita as a mixed caste born from a Vaiçya father and Brāhmaņa mother.

Sarāka—The Sarākas returned in the Government Census as a Jain or Buddhist sect have been mentioned in the Brahma-Vaivarta Purāņa as a Hindu caste born of a Jolā father and Weaver mother. In reality the Sarākas are immigrants from Serike (in Central Asia). The Jain sect called Saraogie is perhaps identical with the people called Sorgae<sup>\*</sup> that, according to Megasthenes (in the 4th century B.C.), occupied a tract of country lying above the confluence of the Indus with the stream of the combined rivers of the Punjab. According to Jain accounts, Saraogies are descendants of those Rajputs and Vaiçyas who were converted to Jainism by Acharyya Jina-sena in Khandela (north of Jaipur) in the year 643 after Mahāvīra, *i.e.*, in 116 A.D. Sorgae therefore in the 2nd century A.D. advanced as far south as Jaipur. I do not find any intimate relation between the Saraogies and Sarākas. However, both might perhaps have come from Serike (in Central Asia), one through the north-western frontier and the other through the north-eastern.

Kaiwarta, §c.—The Kols, who are evidently an aboriginal wild people of India, have been designated in the Brahmavaivarta Purāņa as a mixed caste born of a Lețā father and Tibara mother. The Kaivartas, who were perhaps the original (and once very powerful) inhabitants of Bengal, have, we have seen, been described in the Manusamhita as a mixed caste born from a Niṣāda father and Āyogava mother, but in the Brahmavaivarta Purāņa as that born from a Kṣatriya father and Vaiçya mother. The Andhra, Chola, and Pāṇdya tribes of the Dravidian people became in course of time reckoned as pure Kṣatriyas. The Tāmila tribe of Dravida made several inroads into Ceylon, and the 5th century A.D. five Tāmila kings successively reigned in the island. The Tāmils came towards the north, too, and the Tāmbuli caste of Bengal was perhaps formed by them. I think I need not cite any more examples to establish my theory of Samkara castes

\* McCrindle's Megasthenes, p. 149.

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Origin of Samkara Castes.—It should be observed here that in the primitive stage of the Hindu society, when the foreigners and aborigines first came in contact with each other, intermarriage among different castes did perhaps prevail. The Brāhmaņa could marry girls of all the four castes, the Kşatriya of three castes, the Vaiçya of two castes, and the Sūdra of his own caste only. The children born of parents of different castes generally got the rank of their father. Manu<sup>\*</sup> discusses the point thus :—

"69. As good seed, springing up in good soil, turns out perfectly well, even so the son of an Aryan by an Aryan woman is worthy of all the sacraments.

"70. Some sages declare the seed to be more important, and others the field; and again others assert that the seed and the field are equally important; but the legal decision on this point is as follows :----

"71. Seed sown on barren ground perishes in it; a fertile field also, in which no good seed is sown, will remain barren.

"72. As through the power of the seed, sons born of animals became sages who are honoured and praised, hence the seed is declared to be more important."

"Let the son of the Brāhmaņi wife take three shares of the estate, the son of the Kşatriyā two, the son of the Vaiçyā a share and a half, and the son of the Sudrā may take one share."

Intermarriage is of two kinds: Anuloma and Pratiloma. The former is that in which a man of a higher caste marries a woman of a lower caste, and the latter is quite reverse of the former. Manu's laws concern themselves with anulomaja children. There is no definite law regarding the pratilomaja children. They get the rank of either of the parents according to expediency. Thus, the Anulomaja and Pratilomaja children did not constitute the Samkara castes, but became absorbed in one or other of the four original castes.

The anuloma marriage sanctioned by Manu and other lawgivers prevailed at a time when each of the four original castes possessed the power of assimilating in itself people of the other castes; nay, all people —foreigners or aborigines. In course of time the four original castes, having lost this power of assimilation, became stereotyped. At that stage the foreigners and aborigines had to perform the purificatory ceremony called Vrātya-stoma before they could get admittance into society of Brāhmaņa, Kşatriya, or Vaiçya. The four castes which had

\* G. Buhler's Manusamhita, Book X (translated in S.B.E. series).

+ G. Buhler's Manusamhita, Book IX.

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in the beginning been living organisms became by and by dead crystals, and there came a time when even the Vrātya-stoma became insufficient for the incorporation of outsiders. At this stage each tribe of unfrauchised people, after being admitted into the Hindu society, formed a caste of its own. In this way innumerable castes (wrongly called *Samkara* or mixed) became formed. In the present age of civilisation the so-called Samkara castes are in their turn tending towards mergence in the four original castes and each man is trying to trace his descent from the earliest Brähmana, Kşatriya, Vaiçya, or Çūdra forefather. It is probable that in course of time the entire Hindu population of India will be absorbed in the four original castes for whom alone duties, etc., were prescribed by Sästras. But the defect of the matter lies in the fact that the fourfold classification of castes does not completely suit the present condition of the Hindu society.

From what we have found here it is evident that the traditional Samkara process of birth exists in mere theories, but does not correspond to actual facts. No caste ever came into existence in the way presupposed by the traditional theory. I do not include here among the Samkaras those people who in the early stage of the Hindu society were born from parents of different castes; for, they did not contitute a fifth caste, but used to become incorporated in the caste of their father. It is, however, undeniable that even in the present day there are some rare instances of the father and mother being of different castes, but in those cases the children get the rank of either of the parents. In Darjeeling I met with several instances in which the Brahmana father and Chatri mother gave birth to children that were Chatris, but I never met with a single instance in which a Brahmana father and Chatri mother gave birth to a child that produced a third caste. Though the Samkara process of birth is an absolute myth, it must be admitted that the theory of Samkara castes expounded in the Brähmanic The Brahmana legislators by Sästras is indeed very grand. tracing the four original castes from the different limbs of Brahma the Supreme Being and then deriving all other castes from a mixture of the four thoroughly established the unity and common footing of all the members of the Hindu society: All castes, from Brāhmans to Chandālas, are shown to be directly or indirectly connected with the Supreme Being and the gradations of honour existing among the members of different castes are also duly maintained. But it should be observed here that the Vrātya theory was very much simpler, for it assumed only four classes of people. The Vratya people, having performed the Vrātya-stoma, could freely mix with members of the four pure and original castes on terms of equality.



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# NOTE ON THE PUBLICATIONS

OF THE

# ASIATIC SOCIETY.

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The Proceedings of the Asiatic Society are issued ten times a year as soon as possible after the General Meetings which are held on the first Wednesday in every month in the year, except September and October ; they contain an account of the meeting with some of the shorter and less important papers read at it, while only titles or short resumés of the longer papers, which are subsequently published in the Journal, are given. The Journal consists of three entirely distinct and separate volumes :

Part I, containing papers relating to Philology, Antiquities, etc.; Part II containing papers relating to Physical Science; and Part III devoted to Anthropology, Ethnology, etc.

Each Part is issued in four or five numbers, and the whole form three complete volumes corresponding to the year of publication.

The Journal of the Asiatic Society was commenced in the year 1832,

previous to which the papers read before the Society were published in a quarto periodical, entitled Asiatic Researches, of which twenty volumes were issued between the years 1788 and 1839.

The Journal was published regularly, one volume corresponding to each year from 1832 to 1864; in that year the division into two parts above mentioned was made, and since that date two volumes have been issued regularly every year. From 1894 an additional volume, Part III, has been issued.

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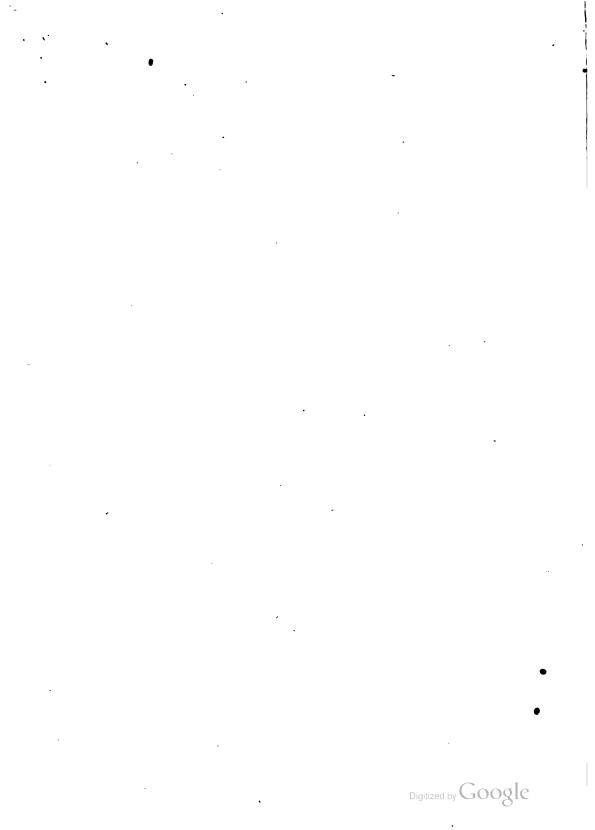
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# NOTES

### ON THE

# BASHGALĪ (KĀFIR) LANGUAGE.

COMPILED BY

COLONEL J. DAVIDSON, C.B., I.S.C.

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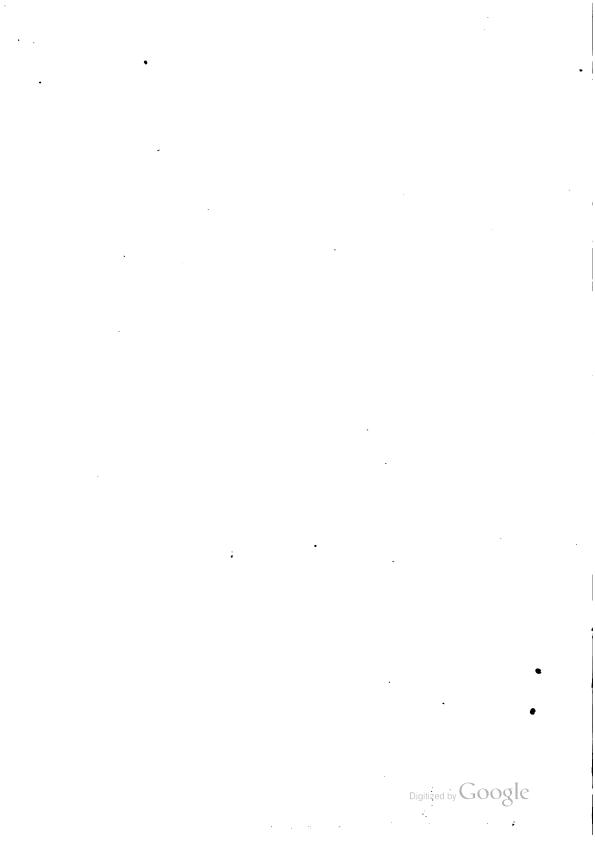


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### SYSTEM OF TRANSLITERATION ADOPTED.

A .- PERSIAN OR HINDÜSTÄNI LWTTERS. ش 1 d . 5 ა <u>sh</u> 1 a ں غ ک ڐ d gh b m f r u n , p ڀ k ÿ ŗ W t ت g ٿ j h Z t zh y, etc. ع j ĵ 6 æ ch 8 خ kh B.-VOWEL SOUNDS. a as in America. ā ", " father. â ,, ,, fall. ,, ,, French était, e ,, ,, mate. ē i ", ", pin. " " pique. ĩ u ", "bull. ū ,, the oo in fool. o ", " first o in promote.

ō ,, ,, second o in promote.

If a vowel is nasalised, as in the Hindūstānī word for "in," or the French word "bon," the sign ~ is placed over the nasalised vowel. In quotations from different authors, their system of transliteration has not generally been changed.

Where a consonant is doubled it is pronounced with greater force.

# PREFACE.

A<sup>T</sup> the latter end of my two years' duty in Chiträl, in March 1898, I prepared, during the short periods of leisure at my disposal, a vocabulary of 1,744 sentences from English into the Bashgalī Kāfir dialect and portions of a short grammar, with the aid of two of the most intelligent Kāfirs of Kāmdēsh and the Bashgal Valley who could be obtained, *viz.*, Shēr Malik and Gul Mīr (a man with at least one alias), both of whom are well known to Sir George Robertson.

The services of Taman <u>Kh</u>ān, an intelligent Chitrālī, were secured to assist in these translations. No *boná fide* Kāfir, conversant with either Urdū, Persian or Pu<u>sh</u>to, or in fact any language except his own and a little Chitrālī, was available. Both the Kāfirs employed knew a few words of, but could not converse at all readily in, Urdū, and had a very useful knowledge of Chitrālī. Taman <u>Khān</u> understood Urdū and Persian well.

Before commencing this task I had studied the Khowār or language of Chitrāl. As the Kāfirs mix more freely with Chitrālīs than with any other race, those residing in the eastern portion of Kāfiristān pick up a certain amount of the Chitrālī language, and several of their idioms—(in the Bashgalī dialect at all events)—are • identical with those of the Chitrālī or Khowār. Every

one of the sentences now published [except 12 taken from , other sources marked (¶)] was taken down by me personally: some were frequently gone over, on successive days, to insure as much accuracy as possible. The Kāfir dialects are not written. There are no Kāfir books, and it is generally said there are no rock inscriptions in the country which would help to throw any light on the origin of the language. It would be interesting to find the rock inscription, ordered to be set up by the Emperor Timūr, referred to in Appendix I, if it is in existence.\* Sir George Robertson (1896) and Dr. Wolff (1861) mention a rumour that some rock inscriptions exist in the country, and Colonel Gardner states he saw some about 1826 A.D. The popular Kāfir sentiment regarding writing and reading will be found recorded in sentence No. 1129. The Kāfirs, however, have a legend that, at one period of their race, they practised reading and writing.

It seems desirable that the language, as it is now used, should be mastered, for the Afghan rule must result in its becoming largely modified.

As a consequence of the conversion of the Kāfirs to Mahomedanism, which will take place to a large extent within a few years, very many of their manners, customs, and religious and social ceremonies will undergo a great change. Indeed it is hardly too much to predict that, as no written records exist of the Kāfir languages, in a few

"It will be interesting to my readers to hear a stone was found at the gate of the Fort of Kullum, on which these words were engraved :--

"The Great Mogul Emperor Timour was the first Muslim conqueror who vanquished the country of this unruly people up to this point, but could not take Kullum, owing to its difficult position."

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<sup>•</sup> Since the above was printed "The Life of Abdur Bahman, Amir of Afghanistan, G.C.B., G.C.S.I.," edited by Mir Munshi Sultan Mahomed Khan, London, 1900, has been published.

The following is an extract from pages 291, 292 :--

<sup>&</sup>quot;I intend to make the Fort of Kullum (which is situated in the heart of Käfiristän in the most impregnable part of the country, owing to its strong position) the military station for the main body of my army on the northern frontier.

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years, the new rulers of the country will have swept into oblivion the very names of some of their ceremonies, deities, and customs, so that these will be lost to all possibility of research. Thus the Persian words  $r\bar{o}za$ , fast; <u>kh</u>udā, God; <u>bihisht</u>, Heaven; <u>dūzakh</u>, Hell, have been grafted into the language, and are largely used.

It is believed that the Bashgalī dialect, with minor modifications, is understood by most of the Siāhpōsh Kāfirs.

The people of Kāfiristān do not generally speak of themselves, nor of their language, as Kāfir. They are known amongst themselves as belonging to certain clans or valleys, such as *Baahgalī*, "a man who resides in the valley of Bashgal"; *Waigulī*, "a man of the Waigul district," and the language they speak is also similarly designated.

It is very hard, if not impossible, to render by English letters the correct pronunciation of many of the words, especially some of the nasal sounds. Sir Alexander Burnes gave his opinion that it was impossible for an Englishman to pronounce some of the Kāfir sounds. Among the most difficult to pronounce are some of the second persons plural of the future, imperative, and conditional of several verbs.\*

It is impossible that this collection of sentences and grammar can be free from mistakes, as, in some cases,

<sup>If it is thought by an European critic that the spelling herein adopted in words such as</sup> *drgr*, *mristh*, *prElr*, is defective, it may be mentioned that, according to the Oriental notions of orthography, all words like "stick," "stamp," "string" are in need of a vowel. According to their notions the proper spelling would be, "istick," "ishtamp," "ishtring"; the initial "i" appearing to them as indispensable, as some vowel appears, to our Western perceptions, desirable, in the three Käfir words above queted.

### PREFACE.

possibly the Kāfirs did not exactly understand the nature of a sentence, the translation of which was desired, as well as for the following reason: Sometimes a sentence, of which the Kāfir translation was needed, would be carefully explained to the Kāfirs by the Chitrālī employed, and apparently well understood. One of them would give his rendering. The other would frequently object, stating it would not be so spoken in his village, etc., etc. Thereupon a heated altercation would arise, lasting a long time, without any agreement being arrived at. In such cases the rendering which seemed more likely to be correct has been accepted. From these sentences, and from many others taken down, but not printed, a short Bashgali Grammar has been prepared.

The language will be seen to resemble Urdū in construction. It has many Persian and Sanskrit words.

In the following pages the transliteration is that laid down for the Linguistic Survey, Government of India, 1898. Our letters, however, appear unfitted to represent certain Kāfir sounds.

If the language appears a simple one, owing to the brevity of its grammar, and sterile as to the number of words, it may be remarked that, as is the case in Chitrālī, the idioms are extremely numerous. It would probably take any person a considerable time, under the most favourable circumstances, to speak the language idiomatically correct.

The leisure at my disposal did not permit of my making the grammar more complete than it is, the material for preparing these papers being collected during the intervals of more important duties. Efforts were made, without success, to elucidate many principles of grammar

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other than those now produced. It was impossible to obtain from the Kāfirs employed, with any degree of certainty, information regarding many points on which it was sought. As I am not a linguist, it seemed to me that the leisure available for this work would be utilised better in procuring a large number of sentences on every day topics and in simple form, than in endeavouring to solve grammatical intricacies which, with men such as the Kāfirs, might have taken up a great deal of time with possibly very small result.

The amount of time taken up and the difficulties and disappointments experienced in endeavouring to elicit grammatical and other linguistic information, from such very unsophisticated men as are the Kāûrs, are described in Surgeon-Major Bellew's lecture at the United Service Institution, India, 1879; Dr. Leitner's similar lecture of 1879; Dr. Leitner's "Dardistān" (1877); and Sir George Robertson's "Kāfirs of the Hindūkush." Dr. Leitner's opinion was that the difficulties in the way of finding out the rules of Kāfir grammar were insuperable.

Dr. Trumpp in his article in the Royal Asiatic Society Journal, 1862, remarks on the absence of aspirates in the Kāfir language. Sir G. Robertson informs me he tried to teach some Kāfirs to pronounce a few English words, such as "happy," "hard," but found it impossible. In my vocabulary of sentences a few will be found.

As is the case in some other languages, notably Turkish, the attention paid by the Kāfirs to certain intricate rules of euphony, which must be puzzling to any one not born in the country, is very remarkable.

Sir G. Robertson, in his manuscript notes, remarks on the great difficulty experienced owing to the apparently

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erratic way in which the Kāfirs inflect words for the sake of euphony, "which they must have at all hazards, eliding words, adding suffixes and affixes, and cutting off syllables whenever there is a difficulty of pronunciation. They try to make the smallest possible number of words express their meaning. They express their meaning to a great extent by gesture, intonation of the voice, and laving particular stress on some syllable, or word in a sentence."

The same word will not always be found spelt in an uniform way in my collection. Many letters are interchangeable, thus z = ds or ts, as zim, dsim, tsim, snow; j = zh or ch, as manjī, manchī, man; jārlm, zhārlm, I will kill. Letters are often transposed, as bagram, bar-'gām; katrawor, kartawor; brōbur, barābar, bōrbur. In words such as  $p_{sh}tarak$  the p is often dispensed with. For the sake of euphony or scansion, words undergo a great variety of changes, thus, "a man" may be manji, manchi, mosh, mochi and even munshi; "very much" may be bluk, biluk, biliuk, biluah; "good," or "well," is le, less, lesst, lessta. Short vowels are sometimes lengthened, and long ones shortened; sometimes a syllable is dropped, and at other times one is inserted, thus, "female" may be stri, shtri, shtari, shtari, ishtri; "to-day" may be pahtarak, ahtarak, ahtak, stak, stag; "for the sake of," dugã, gã, tkã, kê, dễ; for "he," or "it is," there are at least ten words, and for "he," or "it becomes," at least six words.

In very many words I found it impossible to decide whether the vowels should be long or short, whether certain vowels should be nasalised or not, and whether, in certain words, the r and t should be hard or not. Great varieties of pronunciation were met with.

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The same difficulty was experienced by Azimullah, a good Persian scholar, mentioned on page 165, Appendix I.

It has been stated in London newspapers that the easiest route for an army attempting to invade India from the North of the Hindū Kush would traverse the centre of Kāfiristān; it may, therefore, be desirable that, for military reasons alone, something regarding the language of the country should be known.

I have to acknowledge my great obligations to Dr. Grierson, C.I.E., Indian Civil Service, for much assistance kindly given me in preparing these papers, and for placing a great many documents at my disposal.

# GRAMMAR.

### (I) ARTICLE.

1. There is no Article in the Bashgali corresponding with our Indefinite Article; when desirable the cardinal eo, one, can be used.

### (II) SUBSTANTIVES.

2. The Substantive has two genders, masculine and feminine, but the rules regarding gender are not universally followed. Whether the varieties of gender are natural only, or grammatical as well, I cannot state positively.

Some Nouns which appear feminine are as follows : ---

| am <b>u</b> ,  | house.       | khunsā, kunzā, | princess.      |
|----------------|--------------|----------------|----------------|
| argru,         | ceiling.     | miok,          | mouth.         |
| basnâ,         | clothing.    | mãroi,         | stick.         |
| brunz,         | lawn.        | parr,          | apple.         |
| buŗ <b>ī</b> , | bread.       | pott,          | road.          |
| dāo, dār,      | wood.        | shū,           | r080.          |
| dāŗī,          | beard.       | tokum,         | numda.         |
| gåo,           | cow.         | tūs,           | chopped straw. |
| gol,           | country.     | ushp,          | horse.         |
| ishtrī,        | woman.       | yūs,           | grass.         |
|                | <u>zh</u> ū, | hair.          | -<br>,<br>,    |

Adjectives ending in a, l, m, n, r, used with the above words, also tenses of verbs ending in l or a, undergo certain changes. This is not, however, universally the case. Some sentences of the vocabulary will be found to contradict this rule. They are, however, all recorded exactly as • rendered, at the time, by the Kāfirs employed to translate.

3. The use of neo, nāh, male, and ishtri, female, is very common to indicate natural gender, as neo ushp, horse; ishtri ushp, mare.

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4. The following examples show that a feminine seems recognised :--

| manchī-ē ushp brī,                   | A man took a horse.         |
|--------------------------------------|-----------------------------|
| ishtri mri,                          | A woman has died.           |
| shtalë <u>kh</u> unzā mŗl <b>i</b> , | Perhaps the Queen will die. |
| märi perongi,                        | The stick is broken.        |
| iā brā jugūr āwrī,                   | My brother took a wife.     |

In the above instances the terminal of the Verb has been changed from  $\bar{a}$  to  $\bar{i}$  to agree with the feminine Noun. Two examples contradicting the above are in the sentences, namely—

| ushp mrā, | The horse died. |
|-----------|-----------------|
| gåo mrā,  | The cow died.   |

5. Dr. Trumpp was doubtful whether Nouns and Adjectives had any gender; he says "so much is clear that the terminations of Adjectives do not change according to the gender of Substantives." Sir George Robertson says he is uncertain whether any feminine is really recognised, but he is sure that some changes are made in Adjectives in connection with the Substantive which they qualify, perhaps only for the sake of euphony.

6. The Substantive has the following states in declension :--

- (i) The Subject, viz., Nominative or Agent.
- (ii) Genitive (of), dative (to), ablative (from, etc.), locative (in, etc.).
- (iii) Accusative.
- (iv) Vocative.

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7. The Nominative singular and plural are often identical.

8. The Oblique cases are formed by adding certain post-positions (see para. 63) to the inflected cases.

9. The Nominative or Agent precedes the Accusative and Verb; as tos't pitr to latri psetai, thy father lost thy property.

10. Whether the Bashgali (like the Arabic and Sanskrit) recognises the Agent (instrumental) case or no, in sentences where transitive Verbs are used in the Past Tenses, or whether it follows the Persian construction, is not clear. By the Agent<sup>\*</sup> form is meant the idiomatic inversion of the sentence, by which the Verb is rendered passively, and agrees in

<sup>\*</sup> The Agent case is the case with  $n\bar{e}$  in Urdu, when the post-position ko is not used with the Noun, which is the object.

gender with the real object, if any, the object (accusative) becoming the subject and being rendered in the Nominative. When no Nominative is expressed the Verb is impersonally in the singular masculine form. Thus "he killed the horse" would become "the horse was killed by him." Dr. Trumpp came to the conclusion that the Agent was used in the dialect of which he wrote; that in the singular it was not inflected (being identical with the Nominative); and that in the plural it took the termination  $\tilde{\theta}$ . Dr. Grierson thinks the Agent is used in Bashgali. I applied very many test sentences and sometimes found it apparently used and at other times not. The following sentences seem to show the Agent is used :—\*

| 1. | iễ brâ jugūr awrī,              | My brother took a wife.       |
|----|---------------------------------|-------------------------------|
| 2. | <u>zh</u> ī marē iāst urr bri,† | A kite took off my partridge. |
| 8. | manchi-ē id ushp brī,           | A man took off my horse.      |
| 4. | manchië wish ptess,             | The man gave medicine.        |
| 5. | õts host susni awari,           | I brought a handkerchief.     |

The following seem to show that the Agent is not used, or, at all events, the Agent is the same as the Nominative :---

| mehar band krissā,           | The ruler has imprisoned him.  |
|------------------------------|--------------------------------|
| marir jawār iārā,            | The boy has eaten Indian corn. |
| Aoghāni digar pilingi kress, | The Afghans have done injury.  |
| mehar shtri awariss,         | The ruler took a wife.         |

11. Khān Sāhib Abdul Hakīm Khān,‡ who has made some translations into Bashgalī, informs me he thinks the Agent is not used. He has favoured me with translations of the following test sentences :-

| Thou hast made my cloth dirty, | Tu ĩsta basená mul krā.            |
|--------------------------------|------------------------------------|
| She has cooked my food,        | Aske igi buți kara.                |
| Who has caught the thieves?    | <u>Sh</u> tãr k <b>u</b> wanemiā ? |
| We have caught one thief,      | Emâ ê shtãr wanemia.               |
| He has washed my dirty cloth,  | Aske ista mul basená nigā.         |

<sup>•</sup> The following examples occur in Sir G. Robertson's manuscript papers: manchi uzhur dugā jugār awrī, the man has brought a woman for medicine, and Utah ano • awrā, Utah has brought ghi.

# His transliteration differs from mine in some words.!

<sup>†</sup> In another instance, viz., shi marë damiti gwā, the kite having caught (it) went, shi marë is masculine, and, if so, in example 2 bri scems to agree with wrr.

Aske ista tapka sagāya. He has cleaned my gun, To gë dāriu ku ptesesh? Who has given you medicine?  $\overline{O}$  tu vari ishtrak kar tēnum. I hear your speech now, I tu vari dus sangāisi. I yesterday heard your speech, Dus Chälu tä tu kai mär nazush You yesterday said some words to ba. Chānlu. When you arrived yesterday I had Tu dus preishtä i yash na not eaten my food, นลั้าธรรร่. Ō parimdā īsta bra askesta jus My brother had killed his daughter when I arrived, าลักรรร. Dus Mirak āzittā īsta jū kach-My daughter had eaten the fruit when Mirak came yesterday, wech yärissi. He fired two guns, Aske du tapka barkstara. Shâ manchiã lē dao averestai. You men have brought good wood, Tu ista nai-kakak järiä. Thou hast killed my cock, The father killed his own son, Tot amu pitras järiä. The father is killing his own son, Tot amu pitr järana. The horse has eaten all the grass, Ushpe sundi yus yarissi.

The horse is eating the grass,

12. In mentioning the difficulty of ascertaining, for a certainty, whether the Agent form is used or not, it may be noted that there are many parts of India where the Agent form is not understood, and not used by the country folk, who are very far more advanced in grammatical notions than are the Käfirs.

Ushpe yus yuno.

13. The genitive has often no suffix,\* being recognised merely by apposition, the Noun, which is in the genitive, being placed before that which governs it; as-

| Mirak amu,  | The house of Mirak.             |
|-------------|---------------------------------|
| Ushp kudūm, | The work of a horse (grooming). |

Sometimes the suffix i,  $\bar{e}$ ,  $i\bar{e}$ , st, est, es or s is applied, as manchi-est, of a man; mehr'st patti, letter of the Ruler.

• Käßrs often dispense with suffixes and post-positions when the meaning is quite clear without them.

sirkāro, of Government. bidīo, of heart. tōttio, of father. wū-o, of sister-in-law.

A common form of Genitive is to add wā to certain compound words, such as *âl bidī-wā*, of great heart (generous); *digar sira-wā*, of bad heart; *shtal warī-wā*, of true word; *lattrī-wā*, (man) of property; *drushtī-wā*, (man) of poverty; *kāno-wā*, (a place) of trees, (shady); *lē bidī-wā*, (man) of good intention.

Where we use a Genitive the Käfirs often use a Dative; thus, in place of "a horse's bridle" it is very usual to say "horse-to bridle."

14. The Dative, Locative, and Ablative are formed by adding the suffixes  $\bar{a}$ ,  $\bar{e}$ ,  $\bar{i}$ , or  $\bar{o}$ , together with  $t\tilde{a}$ ,  $st\bar{e}$ ,  $m\tilde{e}sh$  or some other of the postpositions mentioned in para. 63. The Ablative is sometimes formed by adding  $\tilde{e}$  to the Nominative, as *eo gujarë*, in one day; *tarwochë*, with a sword; or  $\bar{a}$ , as, *peshāniā*, on (your) forehead; *dushtā*, on (your) hand. In the Dative, the suffix  $t\tilde{a}$  is often dispensed with. Sometimes the suffixes  $\bar{a}$ ,  $\bar{e}$ , etc., are not used, or short vowels are used in place of long ones.

15. The Accusative or Objective is often the same as the Nominative. Some words add  $a, \bar{e}, e, or$ , (as in Khowār,) o for the Accusative, or change the terminal, if a short vowel, into  $\bar{e}$  or o, as—

| work,  | kudūm,         | Accusative,                             | kudūma.         |
|--------|----------------|-----------------------------------------|-----------------|
| horse, | u <u>sh</u> p, | 19                                      | ushpē.          |
| snow,  | zim,           | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | zimo.           |
| head,  | pshai,         | . 39                                    | <b>p</b> shaio. |

16. The Vocative is usually formed by adding  $\bar{a}$  or o to the Nominative, as  $t\bar{o}tt-\bar{a}$ , father! Sometimes it is the same as the Nominative, some Interjection, such as  $h\bar{e}$ , preceding it.

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17. The Nominative plural is often the same as that of the singular, but sometimes  $\bar{a}n$ ,  $\bar{e}n$ , in, or an, is added.

18. The inflected cases plural (as in the Chitrali) end in an or on on.

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### EXAMPLES.

## Manchi, man.

|            | Singular.             | Plural.                     |
|------------|-----------------------|-----------------------------|
| Nom.       | manchī,               | manchi or manchian.         |
| Gen.       | manchi-est, manchi-s, | manchion or manchion'st.    |
| Dat.       | manchi-i tã, 🔹        | manchion tã.                |
| Acc.       | manch <b>i-</b> ē,    | manch <b>i</b> ōn.          |
| Agent (?)  | manchi-ē,             | manchion (?).               |
| Abl., Loc. | manchi-ē stē, otc.,   | manch <b>i</b> on stē, etc. |
| Voc.       | manchi-ā,             | manchi-ā.                   |

### Ushp, horse.

|           | Singular.            | Plural.                   |
|-----------|----------------------|---------------------------|
| Nom.      | ushp,                | ushp.                     |
| Gen.      | ushpē, ushpo,        | `ushpān.                  |
| Dat.      | ushpē tā,            | ushpān tā.                |
| Acc.      | u <u>sh</u> pē,      | ushpān.                   |
| Agent (?) | u <u>sh</u> p-ē (?), | ushp.                     |
| Abl.      | ushpē stē, etc.,     | u <u>sh</u> pān stē, etc. |
| Voc.      | hē u <u>sh</u> p,    | hē ushp.                  |

## Tött, father.

|           | Singular.             | Plural.            |
|-----------|-----------------------|--------------------|
| Nom.      | tōtt,                 | tott.              |
| Gen.      | tōtťs, tōtti, tōttio, | tõttän, tõttän'st. |
| Dat.      | totte tã,             | tottan (?) tã.     |
| Acc.      | tōtt,                 | tottān (?).        |
| Agent (?) | tōtt-ē (?),           | tött (?).          |
| Abl.      | tōtt stē, etc.,       | tõttän stē, oto.   |
| Voc.      | tottia,               | tõttiä.            |

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19.

#### (III) ADJECTIVES.

20. The Adjective ordinarily precedes the Noun, as *âl wott*, big stone; if used as a predicate, it follows, as *tā tott brå sang digar ess*, your clan is all bad.

21. It sometimes undergoes inflection of case to correspond with its Substantive as <u>shi</u> sium, an old carpet; sium  $k\bar{u}l\bar{e} t\bar{a}$ , in an old fort.

22. Several Adjectives were recorded by me as ending in l, m, n, r, such as  $\hat{a}l$ , big;  $si\bar{a}m$ , old; <u>shing</u>ir, pretty, and, when in company with certain Substantives, adding a,  $\bar{e}$ ,  $\bar{i}$ , presumably for the purpose of gender. Adjectives ending in  $\bar{a}$  change the  $\bar{a}$  to  $\bar{i}$  for the feminine, or, at all events, occasionally, for the sake of euphony.

The following are examples :--

| ál mo <u>sh</u> ,                                 | big man.                              | dlli parr,<br>karti âlli u <u>sh</u> p,<br>âlla amu,                                                                        | big apple.<br>long, big horse.<br>big house.                                            |
|---------------------------------------------------|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| d <b>i</b> gr manchī,<br>†drgr lū,<br>drgr warī,  | bad man.<br>long root.<br>long story. | digrī putt,•<br>drgrī u <u>sh</u> p,<br>drgrī argrū,                                                                        | bad road.<br>long horse.<br>long log.                                                   |
| ka <u>sh</u> ir waki,<br>âl ka <u>sh</u> ir_wōtt, | white lamb.<br>large white<br>stone.  | ( ka <u>zh</u> iri gáo,<br>) ka <u>zh</u> ira u <u>sh</u> p,<br>) ka <u>zh</u> iri dāri,<br>( ka <u>zh</u> iri <u>zh</u> ū, | white cow.<br>white horse.<br>white beard.<br>white hair.                               |
| shingir,                                          | pretty.                               | <pre>shingira dare- stān, shū shingira ess, shingira brunz, shingira basnâ, shingira pish,</pre>                            | pretty garden.<br>rose is pretty.<br>pretty lawn.<br>pretty clothes.<br>pretty flowers. |
| wi <u>sh</u> tr taman,                            | wide trousers.                        | wishtr <b>i p</b> utt,                                                                                                      | wide road.                                                                              |

• The Adjective qualifying putt is sometimes masculine.

It has been suggested to me that the first r is pronounced like the Sanskri vowel r.

|            |             | (zhili buri,         | wet (uncooked) bread. |
|------------|-------------|----------------------|-----------------------|
| zhil bhim, | wet ground. | { <u>≥h</u> ila yus, | wet (green) grass.    |
|            |             | ( <u>zh</u> ila dār, | wet (green) wood.     |

The following instances are contrary to the above rule :---

| brå shingorā assā, | the brother is handsome. |
|--------------------|--------------------------|
| ushp shigil assā,  | the horse is fast.       |

Possibly the rule, as in Khowār, is that males are Masculine and natural females Feminine, and all others Neuter, but, whatever rule may be made out, there appear examples to show that it is not regularly followed.

23. Khān Sāhib Abdul Hakīm Khān has obliged me with translations of the following thirteen sentences to test the existence of inflections of Adjectives to agree with Substantives. Certain Adjectives which I found to end in ir in the Nominative Masculine Singular, end, in his translation, in *era*; and the word *âl*, big, is rendered by him as  $\delta la$ .<sup>\*</sup> Words like *kazhera*, when used to qualify Nouns naturally feminine (such as cow, mare), generally change their termination in these examples into *i*, but all other Adjectives ending in *n*, *a*, *k*, undergo no change.

| Thy beard is white,                        | tus dari ka <u>zh</u> era assa.                                                          |
|--------------------------------------------|------------------------------------------------------------------------------------------|
| My hair is white,                          | ĩsta dru kazhera assa.                                                                   |
| My daughter is not pretty,                 | ĩsta jū vi <u>zh</u> eri n'aza.                                                          |
| My bull is white,                          | ista a <u>zh</u> ē ka <u>zh</u> era assa.                                                |
| My cow is white,                           | ista gā ka <u>zh</u> eri assa.                                                           |
| My mare is white,                          | ista ishtri ushpa kazheri assa.                                                          |
| My horse is white,                         | ista u <u>sh</u> pa ka <u>zh</u> era assa.                                               |
| Our horses are all white,                  | imāsta ushpa sundi kazhera ashta.                                                        |
| Take the saddles off all the white horses, | sundi ka <u>zh</u> era u <u>sh</u> pā dā zina<br>wakshā.                                 |
| All your horses are very fat,              | <u>sh</u> āsta sundi u <u>sh</u> pa biliuk karta<br>a <u>sh</u> ta.                      |
| That little girl is very dirty,            | aske parmenstuk juk biliuk mul <u>oh</u> un<br>bissa.                                    |
| That big boy is dirty,                     | aske ōla āri mul <u>ch</u> un azia.                                                      |
| All our mares are very fat,                | imāsta sundi i <u>sh</u> tri u <u>sh</u> pa biliuk <sup>4</sup><br>karta a <u>sh</u> ta. |
|                                            |                                                                                          |

<sup>\*</sup> If he is right, a portion of my para. 22 is wrong. In Sir G. Robertson's manuscript collection there are many adjectives ending in l, m, n, r, as kaghir, ghatram, damtol, etc.



24. Many Adjectives are formed from the Noun of Agency of the Verb, as follows :--

| 1. less kudūm kul,          | good work doing, industrious.                    |
|-----------------------------|--------------------------------------------------|
| 2. widarl,                  | fearing, timid, cowardly.                        |
| 3. pott zarl,               | road knowing, guiding.                           |
| 4. ziān karol,              | loss-making, destructive, malicious,<br>harmful. |
| 5. lālu kul,                | song making, singing.                            |
| 6. less ushp p'tsir nishël, | on a horse good sitting, equestrian.             |
| 7. tarwochē wil,            | sword beating.                                   |
| 8. p'putt lattri rangal     | on road property taking, highway                 |
| (ngal ?),                   | robber.                                          |

The above can be used as Substantives or Adjectives: thus No. 2 is either timid or a coward; No. 3 is guiding or a guide; No. 7 sword smiting or an executioner.

25. Adjectives formed in English from a Substantive, by adding y or ly, such as foxlike, foxy, etc., are formed in Bashgali by adding to the Substantive either  $oh\bar{o}r$ , or  $ay\bar{u}r$ , or  $agy\bar{u}r$ , pirstha, purstha, prishtha, as—

DEGREES OF COMPARISON.

26. The Comparative is formed by using the Positive together with the Ablative case (post-position  $t\tilde{a}$ ,  $st\bar{s}$ ) of the Noun to which it refers, as-

| Mirak drgr manchi assā,   | Mirak is a tall man.                 |
|---------------------------|--------------------------------------|
| Mirak Chãlū tã drgr azz,  | Mirak is more tall than Chānlu.      |
| tū kur iã kurē tã ál ess, | Your ass is bigger than mine.        |
| emâ manchi pachan wari tã | Our men are braver than the enemy.   |
| damtōl asht,              |                                      |
| inā sē po sē stē kachwach | This year fruit is scarcer than last |
| chāgh ess,                | year.                                |

• 27. The Superlative is formed by using a Noun of multitude or quantity with the Positive, as, Basti sundi manchion tä damtol azz, Basti is the most powerful of all men.

#### (IV) PRONOUNS.

PERSONAL PRONOUNS.

# I, $\tilde{i}$ , $i\tilde{a}$ , $\tilde{o}$ ts. Thou, $t\bar{u}$ .

The Personal Pronouns, which we use with Verbs, are omitted by Käfirs. In the Dative and Accusative they are almost always understood. In the vocabulary of sentences they have been more often inserted than would be the case colloquially. Ots.  $\tilde{o}$ ,  $\tilde{f}$ , I.

|           | Singular.                       | Plural.                     |
|-----------|---------------------------------|-----------------------------|
| Nom.      | ots, ōts, õts, õ, iã, ia, i, ĩ, | emâ.                        |
| Gen.      | ĩ, ĩ, iã, iã'st, ĩsta,          | emâ, emâs't.                |
| Dat.      | iã tã,                          | emâ tã.                     |
| Acc.      | õts, õ, iä, i,                  | emâ.                        |
| Agent (?) | ĩ,                              | emâ (?).                    |
| Abl.      | iã mē <u>sh</u> , etc.,         | emâ m <del>ễ</del> sh, etc. |
| Voc.      |                                 |                             |

# Tū, thou.

|           | Singular.                           | Plural.         |
|-----------|-------------------------------------|-----------------|
| Nom.      | tū, tu, to, tō.                     | shâ.            |
| Gen.      | tō, tō'st, tusā, tūsā, tusē, tōstā, | <u>sh</u> â'st. |
| Dat.      | tū tā,                              | <u>s</u> há tã. |
| Acc.      | tū, •                               | <u>sh</u> â.    |
| Agent (?) | tū,                                 | <u>sh</u> â.    |
| Abl.      | tū m <sup>ə</sup> sh, etc.,         | shâ mễsh.       |
| Voc.      | tū,                                 | shâ.            |

29.

DEMONSTRATIVES.

| Inā, anī,<br>Ikīā, askā, akī, iyē, i <u>zh</u> ē, |           | he (this).       |   |
|---------------------------------------------------|-----------|------------------|---|
|                                                   |           | he (remote).     |   |
|                                                   | Inā, anī, | he, this.        |   |
|                                                   | Singular. | Plural.          |   |
| Nom,                                              | inā, anī, | amnå.            |   |
| Gen.                                              | anio,     | am <b>niān,</b>  | _ |
| Dat.                                              | ani tā,   | amnīān tā.       |   |
| Acc.                                              | ani,      | amn <b>ian</b> . |   |
| Agent (?)                                         | anī,      | amnå.            | ٠ |
| Abl., Loc.                                        | ani-mêsh, | amniān mesh.     |   |
| Voc.                                              |           |                  |   |
|                                                   |           |                  |   |

28.

10

## Ikiā, ikia, ikya, askā, akī, iyē, izē, he, that.

|           | Singular.              | Plural.             |
|-----------|------------------------|---------------------|
| Nom.      | ikiā, aki, iyē, izē,   | amki, amgi, amgian. |
| Gen.      | iki, akio, ikiost, io, | amshi-est.          |
| Dat.      | akiyē, akio tā,        | a <b>mkiān</b> tā.  |
| Acc.      | akī, askē,             | amkiān.             |
| Agent (?) | ak <b>i</b> -ē,        | amki.               |
| Abl.      | akio-mësh,             | amkīān mēsh.        |
| Voc.      |                        |                     |

Both inā (this) and  $aki\bar{a}$  (that), if used with words ending in m, are liable to take that terminal, as, inām bagrām, (in) that village.

30. In addition to the ordinary Pronouns of the 1st, 2nd and 3rd person, as above declined, certain pronominal suffixes, that is to say, letters or syllables, affixed at the end of words, take the value of Pronouns and are used instead of our Possessives, as—

| tōtt <b>ī,</b> | my father.  | pitran's, | his sons. |
|----------------|-------------|-----------|-----------|
| tōtt-chī,      | thy father. | pitress,  | his son.  |
| tōtt's,*       | his father. |           |           |

31. The following are samples of pronominal suffixes used with Transitive Verbs in the Past Tenses, or sometimes with Intransitives :--

| iã tū ē tang ptā' <u>ah</u> ,         | I gave thee one rupee.                                           |
|---------------------------------------|------------------------------------------------------------------|
| i tu e tang da karsi' <b>sh</b> ,     | I lent one rupee to thee.                                        |
| tū i shodr kaŗā'sh,                   | I made thee my servant.                                          |
| öts tū dū wor gijjī kaŗā' <b>sh</b> , | I twice have told thee.                                          |
| i tu winā'ah,                         | I have beaten thee.                                              |
| kui tū i shodr karā'ah, kui           |                                                                  |
| di n'vinosā' <u>ah</u> ,              | Ever since I made thee my ser-<br>vant I never have beaten thee. |
| tū õts n'ptā'm,                       | Thou gavest not to me.                                           |
| tū iāst dugā õsh karsa'm,             | Thou hast looked out for me.                                     |
| tū iã digrī ushp kai ptās'm?          | Why gavest thou a bad horse to<br>me?                            |
| t <b>u i</b> ã tã "ē tang prēlom"     | (Thou to me hast promised "I                                     |
| kŗās'm,                               | Thon to me hast promised "I<br>will give one rupee."             |

\* See foot-note to sentence 726.

# BASHGALI GRAMMAR.

| tū iklē ptā,                                                        | Thou gavest to him.                   |
|---------------------------------------------------------------------|---------------------------------------|
| tū ikšē vinā (vinossā),                                             | Thou hast beaten him.                 |
| ikië öts ptā'm,                                                     | He gave to me.                        |
| mikrē askā kudūm iā tā                                              | The Ruler gave that job to me.        |
| wiliās'm,                                                           | •                                     |
| ikie õts vinas'm (vinoss'm),                                        | He beat me.                           |
| ikiē iāst shai winā'm,                                              | He beat <b>my</b> head.               |
| kū tū ptā' <b>sh</b> -ī?                                            | Who gave to thee ?                    |
| iki tū ptā'sh,                                                      | He gave to thee.                      |
| ikī tū vinā'sh (vinossi'sh),                                        | He beat thee.                         |
| tū tā dārū kū pta'sh ?                                              | Who gave medicine to thee ?           |
| manch <b>i</b> tū tã kyā gijji kaŗā' <u>sh</u> i                    | What word did the man make to thee?   |
| inā iki dū tang ptā,                                                | He (this man) to him (that man)       |
|                                                                     | gave two rupees.                      |
|                                                                     |                                       |
| emâ tū pōch tang ptā' <u>sh</u> ,                                   | We gave thee five rupees.             |
| emá tū vinā'sh (vinossi' <u>sh</u> ),                               | We beat thee.                         |
| emā ikī usht tang ptā,                                              | We gave <b>him</b> eight rupees.      |
| emā ikī vinā (vinossā),                                             | We have beaten him.                   |
|                                                                     | ,                                     |
| shå õts sutt tang ptä'm,                                            | You gave me seven rupees.             |
| sha õts vinā'm (vinossa'm),                                         | You beat me.                          |
| 1.4 ibs vanite tang ato                                             | You gave him eleven rupees.           |
| <u>sh</u> đ iki yanits tang ptā,<br><u>sh</u> â iki vinā (vinossā), | You have beaten him.                  |
| <u>sna</u> ini vina (vinosa),                                       |                                       |
| amnd öts trits tang pta'm,                                          | They gave to me thirteen rupees.      |
| amkiān õts vinā' <b>m</b> (vinossa'm),                              | They have beaten me.                  |
| amkiān tū sapits tang ptā' <u>sh</u> ,                              | They gave to thee seventeen • rupees. |
| amkiān tū vinā' <u>ah</u> (vinossi' <u>ah</u> ),                    | They have beaten thee.                |
| amnd ikī nēits tang ptā,                                            | They gave to him ninetcon<br>rupecs.  |

12

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32. In the Present or Future Tense of a Transitive Verb, terminals are not used with it to indicate the Pronouns which may be the object, thus :---

| õts askiē vinom, vilom, | I beat or shall beat him.      |
|-------------------------|--------------------------------|
| õts tū vinom, vilom,    | I beat or shall beat you.      |
| tū ž̃vinj, vilosh,      | Thou beatest or wilt beat me.  |
| tā iklē vinn, vilā,     | Thou beatest or wilt beat him. |
| ikša tū vinn, vilā,     | He beats or will beat thee.    |
| ikīa i vinn, vilā,      | He beats or will beat me.      |

In the above instances, the Verb follows the examples of terminations given for the ordinary conjugation of the Indicative Present and Future.

33. The Reflexive Pronoun which answers to the English word "self," as in "himself," is yot sara or yot zara, and is used thus :--

| iã yōt sara,     | I myself.     | emâ yōt zara, we ou    | rselves.   |
|------------------|---------------|------------------------|------------|
| tu yōt sara,     | thou thyself. | shâ yōt sara, you yo   | urselves.  |
| (tott) yot zara, | (my father)   | amná yöt zara, they tl | iemselves. |
|                  | himself.      |                        |            |

Sometimes mī is used, as Mirak mī krā, Mirak himself made.

**34**.

35.

POSSESSIVE PRONOUNS.

| His own,   | amo, <b>am</b> o'st. |
|------------|----------------------|
| Your own,  | yo'st.               |
| Their own, | am <u>sh</u> io'st.  |

INTERBOGATIVE PROBOUNS.

| Who, which, what? | kāchī ?               |
|-------------------|-----------------------|
| How many ?        | chi, chë, chuk, chok? |

#### Kū, kāchī, kett, who?

|           | Singular.               |                |
|-----------|-------------------------|----------------|
| Nom.      | kū, kāchī, kett.        | kāchī.         |
| Gen.      | kū, kā'st, ku'st, kāwo. | ku'st, kā'st.  |
| Dat.      | kū tā.                  | kett tã.       |
| Acc.      | kū.                     | kāchi.         |
| Agent (?) | kāchī, kū.              | kāch <b>ī.</b> |
| Abl.      | kā mēšsh.               | kett mõsh.     |
| Voc.      |                         |                |

#### RELATIVE PRONOUNS.

36. Relative Pronouns are hardly used.

Verbal Participles, which are used where we should use Relative Pronouns, seem to contain the Relative Pronoun, e.g., Where is the man who took the news? Where is the news-taking man? <u>shu</u> awel moch korar ess? That is the odour of a dog which has died (of a dead dog). iki mright krui digar gun ass.

Some Relative Pronouns are kai, whoever, whatever; ketta (manchi) (the man), who.

#### INDEFINITE PRONOUNS.

37. The following are some Indefinite Pronouns :---

| gijji,                | some one.   | kā, achok, chok, | some.      |
|-----------------------|-------------|------------------|------------|
| kō,                   | any one.    | ajik,            | so many.   |
| wārā,                 | another.    | kāchī na,        | not any.   |
| biluk, biliuk, bilugh | many.       | yo narē,         | one each.  |
| kā——kā,               | eitheror.   | yo sarē,         | by myself. |
| yo kūrē,              | one by one. | ashik,           | so much,   |

#### (V) VERBS.

38. Verbs are Neuter, Active, and Passive.

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They have two Numbers, Singular and Plural. They are generally placed at the end of a sentence. They have four Moods, viz. :--

Infinitive, Indicative, Imperative, and Conditional.

39. The Infinitive appears always to end in sth (or sthe or st or ste), as, awësth, to bring; yosth, to eat; lushtisth, to burn or be frost-bitten. If sthe or ste<sup>\*</sup> is the terminal, not sth, the *a* is very short, hardly discernible, and is always elided if the word following it commences with a vowel. In the following it is taken for granted that the Infinitive ends in sth. By rejecting the above termination a root is obtained (which has often been borrowed from various languages) from which the several Tenses are formed. If the root ends in a way which will render the affixes hard to pronounce, it undergoes some slight change, as lushtisthto burn, root, lusht, which, in some of the cases, becomes lush.

40. The Infinitive is very often used as a Verbal Substantive. It is then inflected in the Singular—(it is not used in the Plural)—by a long  $\bar{a}$ , (which answers to  $dug\tilde{a}$ ,  $tk\tilde{a}$ , for the sake of), being added, as yosth $\bar{a}$ , for the sake of eating, nizhisth $\bar{a}$  bon giats, fetch us a seat for the sake of sitting on; and by adding  $\bar{s}$  or  $\bar{s}$  and using one of the many post-positions given in para. 63, as lunishts m $\tilde{s}sh$ , by the falling. It can be used in the following way: ikis visth ass, it is (appropriate) to punish him.

41. The Participle Present, or Active Participle, or Derivative Substantive, or Noun of Agency, e.g., "doing," is formed from the root by adding n or l, as, (good work) doing (man), (lē kudām) kul (manchā), nishin, sitting. It may also be used in the Future or Past Tense, as, "the man who sang, or is singing, or is about to sing" are represented by "song-making," lālu kul. It takes the place of a Relative Pronoun, as, "the man who took the news has come," shū awēl manchi āyo. It can be used as an Adjective, as, song-making (man), lālu kul, or a song maker, singer; ushp wetsu amchōl, horse's shoe fastening (farrier).
When used as an Adjective, it changes gender, to agree with the Substantive which it qualifies, ap, piltil-i ushp, a falling horse.

<sup>\*</sup> In Sir G. Robertson's manuscript collection the Infinitives end in *sta*, but he is "doubtful whether they are really Infinitives or a form of 'from eating,' 'from going,' etc."

42. The Participle Past or Conjunctive Participle—(having eaten) is usually formed from the root by adding  $\bar{a}t\bar{s}$ ,  $\bar{s}t\bar{s}$ ,  $\bar{i}t\bar{s}$ ,  $\bar{o}t\bar{s}$ ,  $\bar{u}t\bar{s}$ , or  $t\bar{s}$  or  $d\bar{s}$  only, as, nish $\bar{s}t\bar{s}$ , having sat,  $y\bar{u}$ - $t\bar{i}$ , having eaten, ach $\bar{u}$ n- $d\bar{s}$ , having run, wanam- $d\bar{s}$ , having caught. It is used as the equivalent of a Verb followed by a Conjunction, as buri  $y\bar{u}t\bar{s}$  gw $\bar{a}$ , having eaten food he went, or, he ate his food and went, or, as soon as he had eaten his food he went. The termination is sometimes ta,  $t\bar{a}$ .

43. The Indicative Present—(I am doing)—is formed from the root by adding (together with a consonant or a vowel, for euphony, if necessary) nam or nom, tam or thum, or am; as, kunam, I am doing, widartam or widaram, I fear.

It is often used in a Future sense. Its terminals are-

| Singular.                | Plural.                             |  |
|--------------------------|-------------------------------------|--|
| 1. am.                   | mish, må.                           |  |
| 2. nj, nch, ch, sh, njī, | - ễr, ũr, ỗr, ãr, ĩ <b>r.</b>       |  |
| nchi, etc.               |                                     |  |
| 3. nn, tt, ttett.        | nt, nd, tt, <b>t</b> tet <b>t</b> . |  |

44. The Future—(I will or shall take)—is formed from the root by adding lom, as, awelom, I will take.

Its terminals # are-

| Singular. | Plural.                      |
|-----------|------------------------------|
| 1. lom.   | mish, mâ.                    |
| 2. losh.  | õr, ẽr, ilr, ẽlr, õlr, ũlr.† |
| 3. la.    | loh, l <b>ā.</b>             |

The terminal  $l\bar{a}$  becomes  $l\bar{i}$  when used with feminine nouns.

45. The Imperfect—(I was doing, I used to do, I would do, I would have done)—is formed from the root by adding azzam or assam, preceded, if necessary, by some consonant (n and r being favourites) for euphony, as, I was doing, ku nazzam. Its terminals are—

| Singular. |         | Plural.   |  |
|-----------|---------|-----------|--|
| 1.        | azzam.  | azzamish. |  |
| 2.        | azzish. | azzãr.    |  |
| 3.        | azzł.   | azzi.     |  |

46. Past Indefinite—(I made or have made)— is formed from the root • by adding  $\bar{a}$ , or  $\bar{a}h$ , or  $\bar{o}h$ , or o (sometimes for euphony on), preceded, if

<sup>\*</sup> I never heard the terminal lik which Dr. Trumpp gives.

<sup>+</sup> The *l* is sometimes not pronounced; sometimes the pronuncistion is *ënlr*, *önlr*, *ūnlr*, if such a sound can be pronounced by Englishmen.

necessary for euphony, with a consonant, as *awesth*, to bring, root *awë*, past *awërā*. When used with a feminine Substantive it changes its termination to agree with it, as, the man died, *manchī mrā*; the woman died, *ishtrī mrī*. Khān Sāhib Abdul Hakīm Khān says he thinks there is no form, such as "he has eaten," "he has gone," as the Ba<u>shg</u>alis only know the past in the sense "he ate, he went, etc."

47. Pluperfect-(I had done)-is formed from the root by adding issi, as amjissi, I had put on clothes.

48. The second person singular of the Imperative is generally formed from the root by adding a long vowel (preceded by a consonant, for euphony, if necessary), as shiwe, sew thou; name, show thou; kshi, do thou;  $i\bar{o}$ , eat. Where the root is a monosyllable ending in a long vowel, such as  $pr\bar{e}$ , that becomes the Imperative. The remaining tenses of the Imperative seem almost the same as the Future.

49. The Conditional—(if you do, when you shall do, when you shall have done)—is formed by adding  $b\hat{a}$  to the Present, Future, or Past: as karb $\hat{a}$ , if I should do; enj $\tilde{i}$  b $\hat{a}$ , if you go. Sometimes tan is used in place of  $b\hat{a}$ ; and, for sake of euphony, some slight change of letters, so as not to clash with  $b\hat{a}$  or  $t\bar{a}n$ , takes place.

50. The Interrogative is formed usually by adding  $\bar{a}$ ,  $i\bar{a}$ , or sometimes  $\bar{i}$ , as—

| tū purjitish-ā õts shtär assum-ā? | dost thou think I am a thief? |
|-----------------------------------|-------------------------------|
| tū ettishi-ā ?                    | art thou going ?              |
| tū ko ptā's <u>h</u> -i ?         | who gave thee ?               |

51. Phrases such as "at the time of my going" (a form of Gerund), are rendered thus,  $\tilde{i}$  en d $\tilde{a}$  (t $\tilde{a}$ ).

| -           |                                          | To Buy.                    | To Giva.                    | To BEST.         | TO TELL LIES.         | To EAT.                 |
|-------------|------------------------------------------|----------------------------|-----------------------------|------------------|-----------------------|-------------------------|
| Infi        | niti <b>ve .</b>                         | ackūnasth.                 | prēsth.                     | ot <b>is</b> th. | mi <u>ah</u> õsth.    | yusth, yosth,<br>iasth. |
| Roo         | rt.,                                     | ac <b>hūn</b> .            | p <del>rē</del> .           | oti.             | mi <u>så</u> ō.       | yū.                     |
| 8           | ticiple Pre-<br>ent, Verbal<br>oun, etc. | achūnam.                   | p <b>r</b> ēl ( <b>1</b> ). | oti <b>n.</b>    | mi <u>sk</u> ðl.      | yūl.                    |
| Pau         | rticiple Past.                           | achūndī.                   | p <b>r</b> ēt <b>i</b> .    | ot <b>iti</b> .  | mizhētī.              | yūti, <b>skūti</b> .    |
|             | Present .                                | ach <b>ūnam</b> .          | prēnam.                     | otinam.          | mi <u>nð</u> önam.    | y <b>યે</b> મam.        |
| ive.        | Future .                                 | achūnlom.                  | prēlom,<br>prom.            | otilom.          | mi <u>sh</u> ōlam.    | yūlom.                  |
| Indicative. | Imperfect.                               | ach <mark>ūnazzam</mark> . | prēnaszam.                  | otinazzam.       | mi <u>nh</u> ōnazzam. | yūnazza <b>m.</b>       |
| Ц           | Past .                                   | achūn <b>i</b> ā.          | ptā.                        | otinia.          | mi <b>zhi</b> ā.      | īyā, iārā.              |
|             | Pluperfect                               | achūnissum.                | ptāssiam.                   | otinassam.       | mizhessiam.           | iärissam.               |
| Im          | perative                                 | achūnō.                    | prē.                        | otī, otīð.       | mi <u>nk</u> ō.       | iō, āyū, yō,<br>yū.     |
| Cot         | nditional .                              | achūnambâ.                 | prēlombá.                   | otinambâ.        | mi <u>n</u> þētān.    | yūnambā.                |

52. The following are samples exemplifying the rules commencing at paragraph 39 :---

53. Transitive Verbs are formed from Intransitives, and Causals from Transitives, by lengthening the final vowel, or sometimes by inserting  $a, \delta, i, \sigma, o$ , before the termination sth, as—

| piltisth,         | to fall.           | piltāosth, | to cause to fall.  |
|-------------------|--------------------|------------|--------------------|
| am <b>jis</b> th, | to put on clothes. | amjōsth,   | to clothe.         |
| pashisth,         | to light.          | pashiosth, | to cause to light. |
| wisth,            | to rest.           | wiāsth,    | to cause to rest.  |

VEBBS.

54. The following are samples of the conjugations of certain verbs. Each was taken down separately from the men employed, after a number of sentences had been worked out, showing the use of each Tense :--

# INFINITIVE, esth, to be.

#### INDICATIVE.

| Present.                                                                                                  | Imperfect.                                                                 |
|-----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|
| Singular. Plural.                                                                                         | Singular. <b>Plural</b> .                                                  |
| 1. adzum,* asoum<br>azzum. } 1. azumi <u>sh</u> .                                                         | 1. azzum, as <b>siu</b> m. azzumi <u>sh</u> .<br>2. azzu <u>sh</u> . azãr. |
| 2. azzish, $oshish$ ,<br>assi, $oshi$ , 2. az $\tilde{a}r$ .                                              | 3. azzī, essī, wōs. assī, or azam-<br>mē.                                  |
| a <u>sh</u> ī.<br>3. assē, assiā, assā,<br>3. hosth, ai <u>sh</u> t,<br>ass, azs, ezā, a <u>s</u> ht, ai, | n'aist is commonly used for<br>"was not."                                  |
| assā, assett ess, ista, assēl,<br>essā, ai, asēl. etasal, àsth.                                           | Imperative.                                                                |
| After an adjective, the 3rd<br>person singular or plural is often                                         | o <u>sh</u> , be thou.                                                     |
| wai, ā, or zā ; as, zor wai, are strong ;                                                                 | Conditional.                                                               |
| spāhī digar ā, soldiers are bad; chō                                                                      | Singular. Plural.                                                          |
| manchiza, how many men are there?                                                                         | 1. a <u>sh</u> imbâ. a <b>sumi<u>sh</u>bâ</b> .                            |
| "Is not" is often rendered n'ai.                                                                          | 2. ashibâ. azërbâ.                                                         |
| "This is it," <i>incr.</i>                                                                                | 3. a <u>zh</u> ibá. azzab <b>á.</b>                                        |

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· Compare the Samkrit of this tense asmi, asi, asti, smas, stha; santi.

1. Part. Pres., būl.

buti, būti, biti, biti, bissi. 2. ,, Past,

### INDICATIVE.

| 3. Present-                                                                         |                                       |
|-------------------------------------------------------------------------------------|---------------------------------------|
| Singular.                                                                           | Plural.                               |
| 1. b <b>s</b> nam, bunam.                                                           | b <b>ūmi<u>sh</u>, bumi<u>sh</u>.</b> |
| 2. būnji, buch.                                                                     | b <b>ũr.</b>                          |
| 3. <sup>•</sup> būnn, bonā, būtt, buttett,<br>bosel, būttā, bā, bitto,<br>buttaser. | būnd, bund.                           |
| 4. Fature-                                                                          | ·                                     |
| Singular.                                                                           | Plural.                               |
| 1. bülom, bulom.                                                                    | b <b>ūmmå</b> .                       |
| 2. būlosh, bulass.                                                                  | b <b>ī</b> lõr.                       |
| 3. būloh, bulā.                                                                     | būloh, bulā.                          |
| 5. Imperfect—                                                                       |                                       |
| Singular.                                                                           | Plural.                               |
| 1. būnazzam, bunazzam.                                                              | b <b>ūnazzami</b> sh.                 |
| 2. būnazzish.                                                                       | būnazãr.                              |
| 3. būnaszi.                                                                         | būnazzi.                              |
| 6. Past Indefinite-                                                                 |                                       |
| Singular.                                                                           | Plural.                               |
| 1. bā'm.                                                                            | bâmish.                               |
| 2. bā'sh, bōsh, bozhā.                                                              | bō <b>r.</b>                          |
| 3. bā.                                                                              | bā.                                   |
| 7. Plaperfect-                                                                      |                                       |
| Singular.                                                                           | Plural.                               |
| 1. bissium.t                                                                        | bissiumish.                           |
| 2. bissish.                                                                         | bissãr.                               |
| 3. bissī, bistai.                                                                   | bissi, bistai.                        |
| • Does it become ? botasalā ?<br>It is well, lesta balā.                            | † Alzo dosam, dosi <u>sk</u> , etc.   |

INFINITIVE, busth, to become.

[54---

| 8. | IMPERATIVE.        |         |
|----|--------------------|---------|
|    | Singular.          | Plural. |
|    | 1.                 | bummå.  |
|    | 2. bo.             | bür.    |
|    | 3. bā, bâ, billiē. | bulā.   |

9.

## CONDITIONAL.

Singular.

# Plural.

 1. bimtã, bulazzambd.
 bim

 2. bishtâ, bulazzishbâ.
 bîr

 3. bittā, bulazzībâ, bulazh bit

 bâ.
 bit

bimistâ, bomazzibâ. bîrdâ, bulâzrbâ. bittā, bulazzibâ. 21

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INFINITIVE, esth, esth, or gusth, to go.\*

1. Part. Pres. (?)

2. " Past, giti.

INDICATIVE.

- 3. Present-
  - Singular. 1. ennam, anam, aietam, ettam. 2. önji, ötish. 3. ann, enn, ettett.

ēmi<u>sh</u>, ēt**imish**. ēr. end, ettett, e**ttessel**.

Plural.

4. Future-

| Singular.                         | Plural.              |
|-----------------------------------|----------------------|
| 1. ēlom, ēlam.                    | ēmā, ēmish, etimish. |
| 2. enjā, ēlosh.                   | ër.                  |
| 3. ennā, allon, ēlā, ellā, afzio. | ellā, allā.          |

5. Imperfect-

Singular.

- 1. ēnazzam.
- 2. ēnazzish.
- 3. önazzi.

6. Past Indefinite-

Singular.

- 1. gā'm.
- 2. gā'<u>sh</u>.

3. gawā, gūs.

7. Pluperfect-

S**i**ngular.

1. gūssam. 2. gūssish.

2. gussa. 3. gussa. Plural. ēnaszami<u>sh</u>. ēnazz**är.** ēnazzī.

Plural. gāmi<u>sh</u>. gār. gawā, gyē.

Plural. gūssami<u>s</u>h.

gūssēr. gūstai.

\* It is believed some of the tenses are derived from ceth and some from gueth.

2Ż

| 8. | Imperative.      |          |
|----|------------------|----------|
|    | Singular.        | Plural.  |
|    | 1.               | ēmā, ūm. |
|    | 2. prets, i, iē. | iðr.     |
|    | 3. ellā.         | ellā.    |

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# CONDITIONAL.

| Singular.        | Plural.       |
|------------------|---------------|
| 1. gūmbâ.        | gāmishbā.     |
| 2. gūjba.        | gũŗba.        |
| 3. gūbā, gaiebā. | gūb <b>d.</b> |

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| INFINITIVE, kusth, kori                                        | 1sth, to do or make.    |
|----------------------------------------------------------------|-------------------------|
| 1. Part. Pres., kul, kaŗōl.                                    |                         |
| 2. " Past, kusth, (?) kati, kti                                | I.                      |
| Indica                                                         | rive.                   |
| 3. Present—                                                    |                         |
| Singular.                                                      | Plural.                 |
| 1. kunam, kotam, ka <del>r</del> õnam,<br>k <u>sh</u> ām, kom. | kummå.                  |
| 2. kunji, kashi, kshonji.                                      | kũr.                    |
| <b>3. ku</b> nn, kutt, kuttētt, kolann,<br><b>k</b> õr.        | kuttētt, kund.          |
| 4. Future—                                                     |                         |
| Singular.                                                      | Plural.                 |
| 1. kulom, kalom, karölom.                                      | kummâ.                  |
| 2. kulosh.                                                     | k <b>ülr</b> .          |
| 3. kulā.                                                       | kulā.                   |
| 5. Imperfect—                                                  |                         |
| Singular.                                                      | Plural.                 |
| 1. kunazzam.                                                   | kunazzami <u>sh</u> .   |
| 2. kunazzi <u>sh</u> .                                         | kunazzãr.               |
| 3. kunazzł.                                                    | kunazzi.                |
| 6. Past Indefinite-                                            |                         |
| Singular.                                                      | Plural.                 |
| 1.<br>2.<br>3. }<br>kaŗā, kaŗo.                                | } kaŗā, kaŗo.           |
| 7. Pluperfect                                                  |                         |
| Singular.                                                      | Phural.                 |
| 1. krissā, krissī.                                             | krissā, k <b>rissi.</b> |
| 2. krissā, kri <u>sh</u> tai.                                  | krissā, krishtar.       |

3. krissā, krishtai.

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krissā, krishtai.

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| 8. | IMPERATIVE.                                   |                  |  |
|----|-----------------------------------------------|------------------|--|
|    | Singular.                                     | Plural.          |  |
|    | 1.                                            | kummâ.           |  |
|    | 2. kshi.                                      | k <u>sh</u> ĩr.  |  |
|    | 3. kulā.                                      | kulā.            |  |
| 9. | Conditi                                       | ONAL.<br>Plural. |  |
|    | Singular.                                     | rutal.           |  |
|    | 1. karbá, kulaibá.                            | kummabá (?).     |  |
|    | 2. kulojbá, kunjībá, k <u>sh</u> on-<br>jībá. | kuībā (1).       |  |
|    | 3. karbâ.                                     | kulabá (1).      |  |

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# INFINITIVE, mristh, to die.

1. Part. Pros., mrl (?). 2. " Past, mristh.

#### INDICATIVE.

I

| INDIGALLY D.  |  |  |
|---------------|--|--|
|               |  |  |
| Plural.       |  |  |
| mŗēmâ.        |  |  |
| mŗēr.         |  |  |
| mrend, mrett. |  |  |
|               |  |  |

#### 4. Future-

| ~ · · |       |
|-------|-------|
| Nema  | ular. |
|       | www   |

| 1. mrlom.  | mŗēmish.       |
|------------|----------------|
| 2. mŗlōsh. | mŗ <b>ē</b> ŗ. |
| 3. mŗlā.   | mŗēlā.         |

### 5. Imperfect-

| Singular.      | Plural.       |
|----------------|---------------|
| 1. mŗēnazzam.  | mŗēnazzamish. |
| 2. mrēnazzish. | mŗēnazãr.     |
| 3. mŗēnazzi.   | mŗēnazzī.     |

6. Past Indefinite-

| Singular.  | Plural.  |
|------------|----------|
| ]. mŗā'm.  | mrāmish. |
| 2. mŗā'sh. | m?ār.    |
| 3. mŗā.    | mŗā.     |
|            | <br>     |

There is also a form mright aroum, am dead; remainder as assum. (Seo page 19.)

### 7. Pluperfect-

Singular.

- 1. mrissam.
- 2. mrissish.
- 3. mrissä.

Plural. m**ris**sami<u>s</u>h.

Plural.

mrissär. mristai, mrishtä.

| i4j        | VEBS.                        |  |  |
|------------|------------------------------|--|--|
| 8.         | IMPBRATIVE.                  |  |  |
| Singular.  | . Plural.                    |  |  |
| 1.         | mŗēmâ.                       |  |  |
| 2. mŗē.    | mŗēr, mŗēr.                  |  |  |
| 8. mrēlā.  | m <b>rðlö</b> .              |  |  |
| 9.         | Conditional.                 |  |  |
| Singular.  | Plural.                      |  |  |
| 1. mrambå. | mra <b>mizh</b> b <b>a</b> . |  |  |
| 2. mrojbâ. | mŦ ēbā.                      |  |  |
| 3. mraba.  | maba.                        |  |  |

mizhestai.

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8. mizhestai.

÷.,

| 1. Part. Pres., mijol.                   |                          |
|------------------------------------------|--------------------------|
| 2. " Past, mijēti.                       |                          |
| In                                       | DICATIVE.                |
| 3. Present-                              |                          |
| Singular.                                | Plural.                  |
| 1. mi <u>zh</u> ōnam.                    | mizhōmish.               |
| 2. mizhonjī.                             | mi <u>zh</u> õr.         |
| 3. mizhōnn.                              | mi <u>zh</u> end.        |
| 4. Future—                               |                          |
| Singular.                                | Plural.                  |
| 1. mi <u>zh</u> ōlam.                    | mi <u>zh</u> ōmâ.        |
| 2. mi <u>zh</u> ðla <u>s</u> h.          | mi <u>zh</u> õlr.        |
| 3. mizholā.                              | mi <u>zh</u> ōlā.        |
| 5. Imperfect—                            |                          |
| Singular.                                | Plural.                  |
| 1. mizhōnazzam.                          | mi <u>zh</u> ōnazzamish. |
| 2. mizhonazzish.                         | mizhōnazzãr.             |
| 3. mizhonazzi.                           | mizhonazzī.              |
| · - · · · · · · · · · · · · · · · · · ·  |                          |
| 6. Past Indefinite—<br>Singular.         | Plural.                  |
| 1. mizhiā'm.                             | mizhiāmish (1).          |
| 1. mi <u>zh</u> ia' <u>sh</u> (?).       | mizhiār.                 |
| 2. <i>mithi</i> đ.<br>3. <i>mithi</i> đ. | mizhiā.                  |
| J. 7/10020                               |                          |
| 7. Pluperfect-                           |                          |
| Singular.                                | Plural.                  |
| 1. mi <u>sh</u> essiam.                  | mi <u>zh</u> essī.       |
| 2. mizhessi.                             | mi <u>zh</u> essãr.      |
|                                          | mizhestai                |

BASHGALI GRAMMAR.

28

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| <u> </u> |                                     | VERBS.                   | 29 |  |  |
|----------|-------------------------------------|--------------------------|----|--|--|
| 8.       | J                                   | IMPBRATIVE.              |    |  |  |
|          | Singular.                           | Plural.                  |    |  |  |
|          | 1.                                  | mizhammd.                |    |  |  |
|          | 2. mi <u>zh</u> ō.                  | mi <u>zh</u> ōlâr.       |    |  |  |
|          | 3. mi <u>zh</u> ōla.                | mi <u>zh</u> ōlā.        |    |  |  |
| 9.       |                                     | Conditional.             |    |  |  |
|          | Singular.                           | Plural.                  |    |  |  |
|          | 1.)                                 |                          |    |  |  |
|          | 2.<br>mi <u>zh</u> ētān* (?).<br>3. | { mi <u>zh</u> êtān (?). |    |  |  |
|          | 3.) – · · ·                         |                          |    |  |  |

• Probably in the few instances where the termination  $t\bar{a}n$  is shewn for the Conditional tense, there is also a form ending in  $b\bar{a}$ , similar to those shown in the conjugations of *busth*, esth, kusth, etc.

| INFINITIVE, <b>LUS</b>            | tisth, to be frost bitten.       |
|-----------------------------------|----------------------------------|
| 1. Part. Pres., lushtil (?).      |                                  |
| 2. " Past, lushtiti.              |                                  |
|                                   |                                  |
| Iı                                | NDICATIVE.                       |
| 3. Present—                       |                                  |
| Singular.                         | Plural.                          |
| 1. luzhēnam.                      | lu <u>zh</u> ēmi <u>sh</u> .     |
| 2. luzhenj.                       | lushër.                          |
| 8. lu <u>zh</u> ēnn.              | lu <u>zh</u> ēnd.                |
| 4. Future—                        |                                  |
| Singular.                         | Plural.                          |
| 1. lu <u>sh</u> önölom.           | lu <u>s</u> hēlemā.              |
| 2. luzhēnēlosh.                   | lushëlr.                         |
| 3. lu <u>zh</u> ēnellā.           | luzhēnellā.                      |
| 5. Imperfect—                     |                                  |
| Singular.                         | f Plural.                        |
| 1. luzhēnazzam.                   | luzhēnassamish.                  |
| 2. luzhēnazsisk.                  | lu <u>sh</u> ēnassār.            |
| 8. lu <u>zh</u> ēna <b>ss</b> ī.  | luzhêna <b>szi</b> .             |
| 6. Past Indefinite-               |                                  |
| Singular.                         | Plural.                          |
| 1. lu <u>zh</u> engam.            | lu <u>zh</u> engāmish.           |
| 2. luzhengash.                    | lu <u>zh</u> engãr.              |
| 8. luzhengā.                      | lu <u>zh</u> engā.               |
| 7. Pluperfect—                    |                                  |
| Singular.                         | Plural.                          |
| 1. lu <u>zh</u> engossam.         | luzhengossamish                  |
| 2. luzhengossish.                 | lu <u>zh</u> engussär.           |
| 8. lu <u>sh</u> engo <b>s</b> sā. | lu <u>zh</u> engustha <b>i</b> . |

\* The root is *lught* or *lugh*, the tenses being formed accordingly.

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| 8.                      | Imperative.                     |
|-------------------------|---------------------------------|
| Singular.               | Plural.                         |
| 1.                      | lu <u>zh</u> ēle <b>m</b> å.    |
| 2. lu <u>s</u> hē.      | lu <u>zh</u> ēlð <del>r</del> . |
| 3. lu <u>zh</u> ēnellā. | lu <u>zh</u> ēnellā.            |

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#### CONDITIONAL.

Singular. 1. lushtimtān.

2. lushtichtan.

3. lushtinntan.

lu<u>sh</u>temi<u>sh</u>tān (?). lu<u>sh</u>tõrtān (?). lu<u>sh</u>tinntān (?).

Plural.

| INFINITIVE, nighisth,                   | ni <u>sh</u> isth, or ni <u>sh</u> isth, to sit. |
|-----------------------------------------|--------------------------------------------------|
| 1. Part. Pres., nishin, nish            | ēl.                                              |
| 2. " Past, nishiti.                     |                                                  |
| -                                       |                                                  |
|                                         | NDICATIVE.                                       |
| 3. Present-                             |                                                  |
| Singular.                               | Plural.                                          |
| 1. ni <u>zh</u> ēnam.                   | nizhēmish.                                       |
| 2. ni <u>zh</u> enj.                    | ni <u>zh</u> <del>ë</del> r.                     |
| 3. ni <u>zh</u> ðnn.                    | ni <u>zh</u> ēnd.                                |
| 4. Future                               |                                                  |
| Singular.                               | Plural.                                          |
| 1. nizhēlom, nishilom.                  | ni <u>zh</u> ēm <b>ß</b> .                       |
| 2. nizhēlosh.                           | ni <u>zh</u> ĕlr.                                |
| 3. nizhēlā.                             | ni <u>zh</u> ēlā.                                |
| -                                       |                                                  |
| 5. Imperfect-                           | Plural.                                          |
| Singular.                               |                                                  |
| 1. nizhinazzam.                         | ni <u>zh</u> inazami <u>sh</u> .                 |
| 2. ni <u>zh</u> inazzi <u>sh</u> .      | ni <u>zh</u> inazzãr.<br>nizhinazzł.             |
| 3. ni <u>zh</u> inazzī.                 | • <i>ni<u>st</u>oviuzzi</i> .                    |
| 6. Past Indefinite-                     |                                                  |
| Singular.                               | Plural.                                          |
| 1. ni <u>sh</u> iā'm.                   | nishiāmish.                                      |
| 2. nishiā'sh (?).                       | nishiā.                                          |
| 3. nishia, or nishin ass.               | nishið.                                          |
| 7. Pluperfect-                          |                                                  |
| Singular.                               | Plural.                                          |
| 1. ni <u>zh</u> ēnassim.                | ni <u>zh</u> ēnassamis <u>h</u> .                |
| 2. nizhēnassish.                        | ni <u>zh</u> ēnassār.                            |
| 8. <b>{</b> nizhēnassi.<br>nizhēnistai. | { ni <u>zh</u> ēnassī.                           |
| " Zni <u>zh</u> ēnistai.                | <b>∖</b> ni <u>sh</u> ēni <b>s</b> tai,          |

## wwwwwww nighigth nighigth or nighigth to sit

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<u>,</u> ?

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| 8. |                                                                  | Imperative.                                                 |
|----|------------------------------------------------------------------|-------------------------------------------------------------|
|    | Singular.                                                        | Plural.                                                     |
|    | 1.<br>2. ni <u>zh</u> ē.<br>3. ni <u>zh</u> ēlā, ni <u>zh</u> â. | ni <u>zh</u> ēmG.<br>ni <u>zh</u> ēlr.<br>ni <u>zh</u> ēlā. |
| 9. |                                                                  | CONDITIONAL.                                                |

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Singular.

1. ni<u>zh</u>ēlambâ.

2. nizhēlazhbâ.

3. nizhēlabā.

# Plural.

ni<u>zh</u>ēlami<u>sh</u>bâ. niz<u>h</u>ēlrbâ. ni<u>zh</u>ēlabâ.

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D.

### INFINITIVE, piltisth, to fall.

Part. Pres., piltil.
 ,, Past, piltētī.

## INDICATIVE.

3. Present-

- Singular.Plural.1. piltēnam.piltēmā.2. piltanj.piltēr.3. piltann.piltand.
- 4. Future-

| Singular.     |   |
|---------------|---|
| 1. piltilom.  | r |
| 2. piltilosh. |   |
| 8. piltilā.   |   |

5. Imperfect-

- Singular.
- 1. piltinassam.
- 2. piltinassi<u>sh</u>. 3. piltinassi.
- 6. Past Indefinite-

# Singular.

- 1. piltiā'm.
- 2. piltiā'sh.
- 3. piltiā.

7. Pluperfect-

Singular. 1. piltissam.

- 2. piltissish.
- . .....

8. piltissi

Plural.

Plural. piltilēmā. piltēlr. piltīlā.

piltinassami<u>sh</u>. . piltinassär. piltinass**i**.

> Plural. piltiāmish.

piltiār. piltiā.

Plural. piltissamish. piltissär. {piltisst, {piltissta:



| 54] |                                | VERBS.                              | 85 |
|-----|--------------------------------|-------------------------------------|----|
| 8.  |                                | IMPERATIVE.                         |    |
|     | Singular.                      | Plural.                             | ,  |
|     | 1.<br>2. piltī.<br>3. piltīlā. | piltilēmē.<br>piltēlār,<br>piltīlā. |    |
| 9.  |                                | Conditional.                        |    |
|     | Singular.                      | Plural                              |    |
|     | 1. piltimdan.                  | piltimishta                         |    |
|     | 2. piltishta.                  | piltîrdā.                           |    |
|     | 3. piltiltá.                   | piltiltä,                           | ١  |

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INFINITIVE, achūnasth, to run.

- 1. Part. Pres., achänam.
- 9. " Past, achundi.

# INDICATIVE.

S. Present-

Singular. 1. achänam. 2. achünanj.

8. achānann.

4. Future-

Singular.

- 1. achanlom.
- 2. achanlosh.

3. achānlā.

5. Imperfect-

Singular.

- 1. achānassam.
- 2. achūnassish.
- 3. achānassi.

6. Past Indefinite-

#### Singular.

- 1. achāniā'm (?).
- 2. achumia'sh (?).
- 3. achēniā (?).
- 7. Pluperfect-

Singular.

- 1. achünissam,
- 2. achunissish.
- 8. achanissi,

Plural. achūnaszamish. achūnaszār. achūnaszī.

Plural. achūniāmish. achūniãr.

achūniā.

Plural. achūnissami<u>sh</u>. achūnissã**r.** achūnissī,

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Plural.

achūlammā. achūnlŗ. achūnlā.

Plural.

achūnamish.

achūnand.

ach**ũ**r.

| 8. | 8. IMPERATIVE. |                     |   |
|----|----------------|---------------------|---|
|    | Singular.      | Plural.             |   |
|    | 1.             | ach <b>s</b> lammå. |   |
|    | 2. achūnō.     | achūnlãr.           |   |
|    | 3. achūnlā.    | ach <b>anla</b> .   | • |
|    | -              |                     |   |
| 9. | CONDITIONAL.   |                     |   |

Singular.

1. achūnambâ.

2. achūnashbá.

3. achūnabá.

Plural. achūnamishbá. achūrbá. achūnabá.

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| INFINITIVE, Otis            | th," utisth, to remain.       |  |
|-----------------------------|-------------------------------|--|
| 1. Part. Pres., otin, utin. |                               |  |
| 2. ,, Past, otiti, utti, †  | uttā.                         |  |
| 8. Present—                 | INDIGATIVE.                   |  |
| Singular.                   | Plural.                       |  |
| 1. otinam.                  | otimmish.                     |  |
| 2. otinj.                   | otãr.                         |  |
| 8. otinn.                   | ot <b>ind</b> .               |  |
| 4. Future-                  |                               |  |
| Singular.                   | Plural.                       |  |
| 1. otilom.                  | otimmå, ot <b>ilam</b> må     |  |
| 2. otilo <u>sh</u> .        | otilr.                        |  |
| 3. otilā.                   | otilā.                        |  |
| 5. Imperfect-               |                               |  |
| Singular.                   | Plural.                       |  |
| 1. otinazzam.               | ot <b>inazz</b> ami <u>sh</u> |  |
| 2. olinazei <u>sh</u>       | otinazzãr.                    |  |
| 3. otinazzī.                | otinazzi.                     |  |
| 6. Past Indefinite—         |                               |  |
| Singular.                   | Plural.                       |  |
| 1. otiniā'm, uttā.          | otiniāmish.                   |  |
| 2. otiniā'sh.               | otir.                         |  |
| 3. otiniā.                  | otin <b>iā.</b>               |  |
| 7. Pluperfect-              | ······                        |  |
| Singular.                   | Plural.                       |  |
| 1. otinassam.               | otinassamish.                 |  |
| 2. otinassish.              | otinassär.                    |  |
| 3, otinassī.                | otina <b>s</b> sī.            |  |

\* The first letter throughout the verb is sometimes u.

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\* This is found in the sense of "that which remained ; the leavings."

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3. otinabá.

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| IMPERATIVE.                                        |  |
|----------------------------------------------------|--|
| Plural.                                            |  |
| oti <b>mm</b> á.<br>otilãr.<br>otila.              |  |
| Conditional.                                       |  |
| Plural.                                            |  |
| otin <b>am</b> i <u>zh</u> bå.<br>otĩrb <b>å</b> . |  |
|                                                    |  |

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otinabâ.

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INFINITIVE, iasth, yosth, yusth, yūsth, to eat.

1. Part. Pres., yūl.

2. " Past, yūti, shūti.

#### INDICATIVE.

- 3. Present-
  - Singular.
  - yūnam, aietam.
     yūnjī, yūchī.
  - 3. yūnn, yūlt, yūttett.
- 4. Future-
  - Singular. 1. yūlom.

2. yūlosh. 3. yūlā.

5. Imperfect-

- Singular.
- yūnazzam.\*
   yūnazzish.
- 2. yūnazzi.
- 6. Past Indefinite-
  - Singular.
  - 1. łyā, iārā (?).
  - 2. iārā.
  - 3. iārā, iyā, iyāsht.

7. Pluperfect-

- Singular. 1. iärissam. 2. iärissish.
- 3. เลี้หรร.

Plural. iãrissami<u>sh</u>. iãrissãr. iãrissī.

• In this tense the letter i sometimes takes the place of n as yalaszam, etc.

yūmi<u>sh</u>. yū̃r. yūnd, yūtt, yūttett.

Plural.

. Plarol. yūmá. yũlr. yūlā.

Plural. yūnazzamish. yūnazzãr. yūnazzi.

Plural. iā̃ramish (?). iā̃r. iā̃rā.

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| 8.                 | IMPERATIVE.                 |                        |  |
|--------------------|-----------------------------|------------------------|--|
|                    | Singular.                   | Plural.                |  |
| 1.<br>2. i<br>3. y | ō, āyū, yō, yū.<br>ūlā.<br> | yāmā.<br>yār.<br>yālā. |  |
| 9.                 | Conditional.                |                        |  |

Singular.Plural.1. yūnambā.yūmishbā.2. yūnjbā.yūrbā.3. yūnabā.yūndabā.

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### INFINITIVE, ngūsth, to take.

| 1. | Part. | Pres., | ngal.  |
|----|-------|--------|--------|
| 2. | ,,    | Past,  | ngātī. |

#### INDICATIVE.

- 3. Present—

   Singular.
   Plural.

   1. ngānam.
   ngāmish.

   2. nganj.
   ngãr.

   3. ngann, ngatt.
   ngand.
- 4. Future—

| Singular.   | Plural.        |
|-------------|----------------|
| 1. ngālom.  | ngāmâ.         |
| 2. ngālosh. | ng <b>ãlr.</b> |
| 3. ngālā.   | ngālā.         |

# 5. Imperfect-

- Singular.
- 1. ngānazzam.
- 2. ngānazzish.
- 3. ngānazzi.
- 6. Past Indefinite-

## Singular.

- 1. ngūtā'm. 2. ngūtā'<u>s</u>h.
- 3. ngūtā.
- 7. Pluperfect-
  - Singular.
  - 1. ngūtūssam.
  - 2. ngūtūssish.
  - 3. ngūtūssī, ngūtastai.

ngānazzami<u>sh</u>. ngānazz*ār.* ngānazz**ī**.

Plural.

#### Plural.

ngūtāmi<u>sh</u>. ngūtā̃**r.** ngūtā.

Plural.

ngūtūssami<u>sh</u>. ngūtūss**är.** ngūtūssī, ng**ū**tastai.

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| 8.        | Imperative.     |
|-----------|-----------------|
| Singular. | Plural.         |
| 1.        | ng <b>āmā.</b>  |
| 2. ngā.   | ngãr.           |
| 3. ngālā. | ngãr.<br>ngālā. |
|           |                 |
| 9. 0      | Conditional.    |
| Singular. | Plural.         |

| Singular.           | 2 00/000     |
|---------------------|--------------|
| 1. ngūtambá (?).    | ngāmabā (1). |
| 2. ngūllazzībd (?). | ngãlrbå (?). |
| 3. ngūtabâ.         | ngūtabâ.     |

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# INFINITIVE, presth, to give.

- 1. Part. Pres., prēl (?).
- 2. ,, Past, prētī.

#### INDICATIVE.

- 3. Present-
  - Singular.
  - 1. prēnam.
  - 2. prēnjī.

3. prētt, prēnn.

- 4. Future-
  - Singular. 1. prēlom, prōm. 2. prēlo<u>sh</u>. 3. prēlā.
- 5. Imperfect-
  - Singular.
  - 1. prēnazzam.
  - 2. prēnazzish.
  - 3. prēnazzi.
- 6. Past Indefinite-

#### Singular.

- 1. ptā'm.
- 2. ptā'sh.
- 3. ptā.

7. Pluperfect-

Singular.

- 1. ptāssiam.
- 2. ptāssish.
- 3. ptāssi, ptustai.

Plural.

Plural.

Plural.

prēmā. prēr.

prēnd.

prēmā. prēlī.

prēlā.

prēnazzamish. prēnazzār prēnazzi.

Plural.

pt**āmi**sh. ptā**r.** pt**ā.** 

Plural. ptāssamish. ptāssār. ptāss**i, ptust**ai.

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| 8.                                 | IMPERATIVE.                |
|------------------------------------|----------------------------|
| Singular.                          | Plural.                    |
| 1.<br>2. prē.<br>3. prēl <b>a.</b> | prēmā.<br>prēlr.<br>prēlā. |
|                                    |                            |

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CONDITIONAL.

| Singular.     | Plural.      |
|---------------|--------------|
| 1. prēlombā.  | prēlomishba. |
| 2. prēloshbā. | prēlörba.    |
| 3. prēlābā.   | prēlābā.     |

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INFINITIVE, awesth, to bring, to take. INDICATIVE. Plural. awēmish. awðr. awend, awettett. Plural. awēmâ. awëlr. awēlā, awēttett. Plural.

awēnazzamish. awenazzãr. awēnazzī.

awerāmish (?). awēŗār (?). awērā, awaristhai.

\* Awera or arwara, and pluperfect awarissam or arwarissam.

- 2. ,, Past, awiti.
- 3. Present-
  - Singular. 1. awēnom, awētum.
  - 2. awēnj.
  - 3. awēnn, awētt.
- 4. Future-
  - Singular.
  - 1. awēm, awēlom.
  - 2. awēlosh.
  - 3. awēlā.

#### 5. Imperfect-

- Singular.
- 1. awēnazzam.
- 2. awēnazzish.
- 3. awēnazzī.
- 6. Past Indefinite-
  - Singular.
  - 1. awērā'm.\*
  - 2. awērā'sh.
  - 3. awērā, awaristhai.
- 7. Pluperfect-
  - Singular.
  - 1. awarissam.
  - 2. awarissish.
  - 3. awarissi.

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Plural.

Plural.

awarissamish (?).

awarissär (?).

awarissī.

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| 8.                        | Imperative.  |  |
|---------------------------|--------------|--|
| Singular.                 | Plural.      |  |
| 1.                        | avēmā.       |  |
| 2. giats, gats.           | gatsãr.      |  |
| 3. awēlā.                 | awēlā.       |  |
| 0                         |              |  |
| 9.                        | CONDITIONAL. |  |
| Singular.<br>1. awaramba. | Plural.      |  |
| 1. awarambâ.              | amaramiehha  |  |

awarambā.
 awarijbā.

3. awaraba.

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awaramishbå. awarðrbå (?). awarabå. 47



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# INFINITIVE, amjisth, to put on clothes.

1. Part. Pres., amjil.

2. " Past, amjiti.

#### INDICATIVE.

3. Present-

- Singular. Plural. 1. amjinam. amjimi<u>eh</u>. 2. amjinj. amjir. 3. amjitt, amjinn. amjind.
- 4. Future-
  - Singular.
  - 1. amjilom.
  - 2. amjilosh.
  - 3. amjilā.

#### 5. Imperfect-

- Singular.
- 1. amjinazzam.
- 2. amjinazzish.
- 3. amjinazzi.
- 6. Past Indefinite-

#### Singular.

- 1. amjiā'm.
- 2. amjiā'sh.
- 3. amjiā.

7. Pluperfect-

Singular.

- 1. amjissim.
- 2. amjissish.
- 3. amjissī, amjistai.

Plural.

amjinazzami<u>s</u>h. amjinazz**ar.** amjinazz**i.** 

Plural. amjiāmish. amjiār. amjiā.

Plural. amjissimi<u>sh</u>. amjissär. amjissä, amjistai.

e

- amjind.
  - Plural. amjimm**á**. amjilr. amjilā.

| 8. IMPERATIVE. |                   |
|----------------|-------------------|
| Singular.      | Plural.           |
| 1.             | amj <b>imm</b> đ. |
| 2. amjū.       | amjīlãr.          |
| 3. amjīlā.     | amjilā.           |

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#### CONDITIONAL.

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Singular. 1. amjilambâ. 2. amjilo<u>sh</u>bâ. 3. amjilabâ.

Plural. amaj**immab**a amjîlrba, amjilaba. 49

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INFINITIVE, pshisth, to grind.

1. Part. Pres., pshil (?).

2. " Past, pshiti.

50

INDICATIVE.

| 3. Present—        |           |
|--------------------|-----------|
| Sing <b>ul</b> ar. | Plural.   |
| 1. pshinam.        | pshimish. |
| 2. pshinj.         | pshīr.    |
| 3. pshinn.         | pshind.   |

4. Future-

Singular.

- pshilom.
   pshilosh.
- 3. pshilā.

#### 5. Imperfect-

# Singular.

- 1. pshinazzam.
- pshinazzish.
   pshinazzi.
- 6. Past Indefinite ---
  - Singular.
  - 1. p<u>sh</u>ā'm. 2. p<u>sh</u>ā'sh.
  - 3. pshā.
- 7. Pluperfect-

Singular.

- 1. pshissam.
- 2. pshissish.
- 3. pehissi.

Plural. p<u>shinazzamish.</u> p<u>shinazz</u>är. p<u>shinazzi.</u>

Plural.

pshimâ. pshīlr.

pshilā.

Plural. p<u>shāmish</u>. p<u>sh</u>ār. p<u>sh</u>ā.

Plural. pshissamish. pshissär. pshissi.

| IMPBBATIVE. |
|-------------|
| Plural.     |
| pshimd.     |
| pshilär.    |
| . pshilā.   |
|             |

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#### CONDITIONAL.

Singular. 1. p<u>sh</u>inambå. 2. p<u>sh</u>ishbå (1). 3. p<u>sh</u>ibå. Plural. p<u>shīmish</u>bā. p<u>sh</u>īrbā. p<u>sh</u>ībā. 51

**p** 2

INFINITIVE, wisth, or visth, to beat.

1. Part. Pres., wil.

2. " Past, witi.

#### INDICATIVE.

3. Present—
 Singular.
 1. winom.
 2. wich, winj.
 3. winn, witt.

4. Future-

| Singular.  | Plural. |
|------------|---------|
| 1. wilom.  | wimâ.   |
| 2. wilosh. | wilõr.  |
| 3. wilā.   | wilā.   |

5. Imperfect-

Singular.

1. winazzam.

2. winazzish.

3. winazzī.

6. Past Indefinite-

#### Singular.

- 1. winā'm.
- 2. winā'sh.

3. winā.

7. Pluperfect-

Singular.

- 1. winossam.
- 2. winossish.

3. winossi.

Plural.

winazzami<u>sh</u>. winazzãr. winazzi.

Plural. wināmish. winār. winā.

Plural. winossamish. winossär. winossä,



| 8.                 | Imperative.     |  |
|--------------------|-----------------|--|
| Singular.          | Plural.         |  |
| 1<br>2. wł.        | wimâ.<br>wilõr. |  |
| . <b>8. wilā</b> . | wilā.           |  |
|                    |                 |  |
| 9.                 | CONDITIONAL.    |  |

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| Singular.    | Plural.<br>winami <u>sh</u> bå (†).<br>wīrbå (?). |  |
|--------------|---------------------------------------------------|--|
| l. winambâ.  |                                                   |  |
| 2. winoshbâ. |                                                   |  |
| 3. winabâ.   | winabd. 🕈                                         |  |

INFINITIVE, nizhosth, to cause to sit; to set.

1. Part. Pres., ni<u>zh</u>ōl (?).

2. ,, Past, nizhōti (?).

#### INDICATIVE.

3. Present-

54

Singular.

1. ni<u>zh</u>ōnam. 2. ni<u>zh</u>ōnj.

3. ni<u>zh</u>ōn**n**.

4. Future-

Singular. 1. ni<u>zh</u>ðlom, 2. ni<u>zh</u>ðlo<u>sh</u>.

3. ni<u>gh</u>ðlā.

5. Imperfect-

Singular.

1. ni<u>zh</u>ōnazzam.

2. nizhōnazzish.

3. ni<u>zh</u>ōnazzi.

6. Past Indefinite-

Singular.

1. nishēā'm.

2. nishēā'sh.
 3. nishēā.

7. Pluperfect— Singular. 1. nizhōnassam.

2. nizhonassish.

3. nizhonassi.

Plural.

Plural.

nizhomish.

nizhör.

nizhond.

Plural.

nizhōlmâ.

nizhölr.

nizhōlā,

ni<u>zh</u>ōnazzami<u>sh</u>. ni<u>zh</u>ōnazzãr. niz<u>h</u>ōnazzi.

Plural. nishēāmish (?). nishēr. nishēā.

Plural. ni<u>zh</u>ōnassami<u>s</u>h. ni<u>zh</u>ōnassãr. ni<u>zh</u>ōnass**i**.

| 8.                   | Imperative.                 |  |
|----------------------|-----------------------------|--|
| Singular.            | Plural.                     |  |
| 1.                   | ni <u>sh</u> āmm <b>ā</b> . |  |
| 2. ni <u>zh</u> āō.  | ni <u>zh</u> õr.            |  |
| 3. ni <u>zh</u> ālā. | ni <u>zh</u> ālā.           |  |

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CONDITIONAL.

Singular. 1. ni<u>zh</u>ālezambâ. 2. ni<u>zh</u>ālezi<u>sh</u>bâ.

3. nizhālezībá.

Plural. ni<u>zh</u>ālazamishbā. ni<u>zh</u>ālezībā. ni<u>zh</u>ālezībā.



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# INFINITIVE, piltösth, to cause to fall; throw down. 1. Part. Pres., piltol (?). ,, Past, pilteiti. INDICATIVE. Singular. Plural. piltoma. 2. piltonanj. piltõr. 3. piltonn. piltond. Singular. Plural. piltolemma. 2. piltolosh. piltolõr.

5. Imperfect-

- Singular.
- 1. piltonassam.
- 2. piltonassish.
- Singular.

  - 2. piltēā'sh.

7. Pluperfect-

Singular.

- 1. piltossum.
- 2. piltossish.
- 3. piltossi, piltostai.

#### Plural.

piltola.

Plural.

piltonassar.

piltonassi.

piltonassamish.

pilteamish. pilteār. piltēā.

#### Plural.

piltossumish. piltossär. piltossi, piltostai,

3. Present-

2.

- 1. piltonam.

- 4. Future-

  - 1. piltolom.
  - 3. piltolā.
- - 3. piltonassi.
- 6. Past Indefinite-

  - 1. piltēā'm.

  - 3. piltēā.

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| 8. | IMPERATIVE.   |                |  |
|----|---------------|----------------|--|
|    | Singular.     | Plural.        |  |
|    | 1.            | piltōmmā.      |  |
|    | 2. piltāo.    | piltolär.      |  |
|    | 8. piltolā.   | piltōlā.       |  |
| 9. | Conditional.  |                |  |
|    | Singular.     | Plural.        |  |
|    | 1. piltombå.  | piltōmabâ (?). |  |
|    | 2. piltoshbû. | piltörbå (?).  |  |
|    | 3. piltobå.   | piltōlabå (?). |  |

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BASHGALI GRAMMAR.

55. The following are some forms of a defective or irregular verb **aosth**, to come :--

| having come,                | atti.                               | Imperative, ats<br>come, prots.                                                                  |  |  |
|-----------------------------|-------------------------------------|--------------------------------------------------------------------------------------------------|--|--|
| it comes or                 |                                     | come, prēts.                                                                                     |  |  |
| it comes or<br>will come, } | afziā.                              | if you come, anjībá.                                                                             |  |  |
| he comes,                   | ann, awettett.                      | we are coming<br>or will come, } atsomā.                                                         |  |  |
| I came,                     | aiyōsam.                            | or will come, Jacoba.                                                                            |  |  |
| thou camest,                | aiyō <u>sh</u> , o <u>sh</u> , hāu. | they come, attētt.                                                                               |  |  |
|                             | aiyo, ozz,                          | ( afziā, osth,                                                                                   |  |  |
| he came,                    | aiyo, ozz,<br>ess, adsā,<br>afziā.  | they have<br>come, $\begin{cases} afzi\bar{a}, osth, \\ osthai, \\ \hat{a}y\bar{u}. \end{cases}$ |  |  |
|                             | afziā.                              | come, $d \hat{a} y \bar{u}$ .                                                                    |  |  |

56. "To be able," **busth**, is used by adding it to the root of a verb, supplemented by a letter for suphony if desired, as, to catch, *damisth*; I cannot catch, *dam-en na battam*.

| I cannot enter,              | en na battam.             |
|------------------------------|---------------------------|
| I cannot pull,               | k <u>sh</u> on na battam. |
| you cannot run,              | achūn na banj.            |
| you can kill,                | jār bachā.                |
| he cannot make,              | kon n'buttett.            |
| thou wilt not be able to go, | n'pā balo <u>sh</u> .     |
| 1 cannot go,                 | n'iam b <b>anam.</b> •    |
| he cannot go,                | pilingēn na batt.         |
| we cannot see,               | emá war n'bammá.          |

57. "To have" is rendered thus: I have two horses, to me two horses are,  $i\tilde{a} \ d\bar{u} \ ushp \ asht$ . A form was, "has," is sometimes heard, as tapak was, he has a gun;  $dush \ n'wasam$ , I have no blame. This word has many parts which seem to come from an infinitive wasth.

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#### PASSIVE.

58. The passive form of the verb is not very often used. The following are samples :—

| My arm is broken,          | iā dui pețangwā.              |
|----------------------------|-------------------------------|
| The stick is broken,       | märi perongi.                 |
| My ankle is broken,        | grik pețangūs.                |
| The bow is broken,         | drōn pețangūs.                |
| The bridge is broken,      | sū petangess.                 |
| My saddle will be broken,  | zin pețang ellă.              |
| The leg will be broken,    | nanden pețanlā.               |
| I am beaten,               | ōts vina vina karessam.       |
| Thou wilt be beaten,       | tu vinagan ungalo <u>sh</u> . |
| He would have been beaten, | ika vinagan ungalazī.         |
| We have been beaten,       | emā vinagan ungutussī.        |
| Grass is eaten up,         | yūs yūti laga biss.           |
| You will be killed,        | <u>sh</u> â jāra elār.        |
| He was killed,             | aska jāra gwā.                |
| Ten soldiers were killed,  | duts spāhī tapā gwā.          |
|                            |                               |

The last eight of the above were obtained by Khān Sāhib Abdul Hakim. Khān.

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# (VI) INDECLINABLES.

| 59.                      | Adverss                                   | OF TIME.                  |                                       |
|--------------------------|-------------------------------------------|---------------------------|---------------------------------------|
| afterwards,              | { ptior, ptiwar, ptiwar, ptibar, or pāmē. | hitherto,<br>immediately, | starak wik.<br>sapp, zapp.            |
| all together,            | ē wōr,                                    | last year,                | . pō, pō sē.                          |
| always,                  | parē wor.                                 | late,                     | drē.                                  |
| at any time,             | kai wōs tã.                               | never,                    | kũi na.                               |
| at last,                 | pēlik.                                    | once,                     | ē wor.                                |
| at what time ?           | koł?                                      | rarely,                   | achok woktā.                          |
| back again,<br>before,   | dī, wā.<br><u>sh</u> aiyē.                | separate,                 | kũrễ kũrễ, kūrễ<br>kũrễ, yo nirikễ.   |
| by night,                | radar.                                    | since when ?              | kuī stē ?                             |
| daily,                   | sang gujr.                                | some day or               | );                                    |
| day after to-<br>morrow, |                                           | another,<br>sometimes,    | kui wōs tā.<br>kāchī, kui kui.        |
| day before<br>yesterday, | nottrē.                                   | soon,<br>ten times,       | zapp, achūnam.<br>duts wōr.           |
| each day ;<br>daily ; in | eo gujrë.                                 | to-d <b>ay</b> ,          | {starak, pstarak,<br>pshtarak, shtak. |
| a day,                   |                                           | to-morrow,                | dalkið, dalkia.                       |
| early, or soon,          |                                           | twice,                    | dū wõr.                               |
| early morning,<br>ever,  | kuiā̃.<br>kuī, kuī wōs tā̃.               | two days<br>hence,        | } achutt.                             |
| formerly,                | { shangyē zamā-<br>na tã.                 | when ?                    | {kāstē tār,<br>kai wokt ?             |
| henceforth,              | pāmū.                                     | yesterday,                | dūs, dus.                             |
| 60.                      | Adverss c                                 | F PLACE.                  |                                       |
| anywhere,                | kōr.                                      | in front of,              | nirgō.                                |
| around,                  | p'banūr.                                  | here,                     | anī, anic.                            |
|                          | -                                         | high an                   | -1 <del>.</del>                       |

| anywnere,    | nov.                      |                   | ~~ yu                           |   |
|--------------|---------------------------|-------------------|---------------------------------|---|
| around,      | p'banūr.                  | here,             | a <b>nī, ani</b> c.             |   |
| back,        | wā.                       | high up,          | chĩ <b>r.</b>                   |   |
| back again,  | dī.                       | inside,           | attër.                          |   |
| down hill,   | b <b>rũ̃lē</b> , buru.    | low down (a)      | nĩr.                            | • |
| down stream, |                           | valley), <b>J</b> |                                 |   |
| downwards,   | wār, wao, yūr.            | near,             | {turë, torë,<br>tawarë, attkhi. |   |
| far,         | bad <b>ūr.</b>            |                   | Ltawarë, attkhi.                | ٠ |
|              | (panoi, na <u>sh</u> tar- | outside,          | bar, b <b>erũ.</b>              |   |
| in front,    | { wai.                    | somewhere,        | kōr.                            |   |
|              |                           |                   |                                 |   |

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| there,<br>up hill,<br>up to,<br>whence,<br>whereabouts,<br><i>por</i> . which way ? | akī, akīyē, hatt.<br>atõre.<br>katī.<br>kōr stē.<br>, kott.<br>korār ? |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------|
|                                                                                     | Chiligah biluch                                                        |
| N                                                                                   | up hill,<br>up to,<br>whence,<br>whereabouts,                          |

| how much?<br>this much, | ch <b>i,</b> chok, chuk.<br>igiak.   | very { bilūgh, bilugh, bilugh, | , |
|-------------------------|--------------------------------------|--------------------------------|---|
| so many,<br>so much,    | a <u>zh</u> ik.<br>a <u>zh</u> isto. | to a small extent, achok.      |   |

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# Adverss of Similitude.

| aloud,<br>certainly,   | kāgr <b>ē</b> .<br>bua <u>sh</u> t. | separately, $\begin{cases} k\tilde{u}r & k\tilde{u}r, & k\bar{u}r \\ k\bar{u}r. & k\bar{u}r. \end{cases}$ |
|------------------------|-------------------------------------|-----------------------------------------------------------------------------------------------------------|
| even,<br>forcibly,     | dī.<br>kartē.                       | somewhat, a } achok.                                                                                      |
| for nothing,           | giã, gijã.                          | slowly, by stealth, chill?                                                                                |
| how ?                  | kaikotē, kāktī ?                    | surely, nashtonti.                                                                                        |
| like this,             | aj <b>i</b> k.                      | therefore, iki $\tilde{e}$ dug $\tilde{\tilde{a}}$ .                                                      |
| like to,               | agyūr, purst,<br>agūr.              | verily, bua <u>sh</u> t.<br>violently, kōtẽ, kartẽ.                                                       |
| loudly,                | kotë.                               | well, <i>lē</i> , lesstaka.                                                                               |
| not,                   | na, nā, noh.                        | wherefore'? kai dug $\tilde{a}$ ?                                                                         |
| otherwise,<br>perhaps, | giã.<br><u>sh</u> talð, ingol kā.   | why ?<br><b>ky</b> <sup>\$\vec{k}</sup> , kai dā,<br><b>ky</b> <sup>\$\vec{k}</sup> , kaikotē ?           |

63.

# POST-POSITIONS AND PREPOSITIONS.

| • | after, { <i>ptiwar</i> , <i>ptior</i> , <i>tibar</i> . | behind, (see "after.<br>between, p'minj, p'm                     |                        |
|---|--------------------------------------------------------|------------------------------------------------------------------|------------------------|
|   | around, pachūr, p'banūr.                               | beyond, $p\tilde{\tilde{a}r}$ .                                  |                        |
| • | at the time of $(going)$ , $(piliang) t\tilde{a}$ .    | by, in act of, <i>mēsh, mish, m</i><br>by reason of, <i>tã</i> . | ı <i>ё́ <u>sh</u>.</i> |
|   | before, $p$ 'mi $\bar{o}k$ .                           | in front of (thee), (tū) p'nishan                                | r.                     |

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BASHGALI GRANMAR.

POST-POSITIONS AND PREPOSITIONS-continued.

| for sake of,        | dugã, sometimes<br>pronounced very<br>rapidly like tikã,<br>kã, gã; sometimes<br>a is used as a<br>suffix to Infini-<br>tives as yusthā,<br>for sake of cating. | under,<br>until,                                            | bē, begū, berū, bar.<br>tā.<br>pōr, ba (as a prefix).<br>pagiōr, pagūr.<br>wik.                                        |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| in,<br>in midst of, |                                                                                                                                                                 | up to,<br>with (in com-<br>pany),<br>with (by)<br>means of) | pagũr, tã.<br>wīk.<br>mễ <u>sh</u> , mi <u>sh</u> .<br>wārễ, wrã, wrẽ.<br>mē <u>sh</u> , mi <u>sh</u> , mē <u>sh</u> . |
|                     | piōl.<br>chiwōl, tawarē tā.                                                                                                                                     |                                                             |                                                                                                                        |

64.

#### CONJUNCTIONS, ETCETERA.

The Käfirs appear to dispense with conjunctions as much as possible. The construction of the language avoids them. Some seem borrowed from the Chitrali.

yes.

also, even, and, not, if, otherwise, ka-na. or, te, Although in an affirmative reply to such a question as "Has Widing come?", "yes" is sometimes rendered by the Chitrali word "da," it is usual to reply "He has come" or "Widing has come."

\* The post-position ta is sometimes ta or tar.

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65.

66.

#### INTERJECTIONS.

Movements of the hands, etc., are very largely used to express feelings of surprise, annoyance, etc.

| alas,                      | Ş | hai hai,          | for shame,    | tha tha.     |
|----------------------------|---|-------------------|---------------|--------------|
|                            | C | uterestä.         | have a care,  | tarãchi bo.  |
| b <b>e</b> silent,         |   | chūsht osh.       | it is well: ) |              |
| bravo,                     |   | shamash.          | all right.    | lesstā balā. |
| good-bye and<br>good luck, | } | so enj <b>i</b> . |               |              |

(VII) NUMERALS.

|                     | Cardinals.                                                                                            |
|---------------------|-------------------------------------------------------------------------------------------------------|
| 1. ē, eo, yu, yō.   | 19. nēits.                                                                                            |
| 2. dū, dui.         | 20. witsi, watsa.                                                                                     |
| 3. trē.             | 21. witsi eo.                                                                                         |
| 4. <u>sh</u> to.    | 30. witsa duts.                                                                                       |
| 5. puch, pōch, pōj. | 40. du witsi.*                                                                                        |
| 6. shu.             | 50. du witsi duts.                                                                                    |
| 7. sutt.            | 60. trē witsī.                                                                                        |
| 8. u <u>sh</u> t.   | 70. trē witsi duts.                                                                                   |
| 9. non.             | 80. shto witsi.†                                                                                      |
| 10. duts, dots.     | 90. <u>sh</u> to witsi duts.                                                                          |
| 11. yanits.         | 100. $\begin{cases} p\bar{c}ch \ wits\bar{s}, but sometimes \\ \underline{sher} is used. \end{cases}$ |
| 12. dits.           | 100. sher is used.                                                                                    |
| 13. trits.          | 200. duts witsī.                                                                                      |
| 14. shtrits         | 300. pachits witsi.                                                                                   |
| 15. pachits.        | 400. asār.                                                                                            |
| 16. <u>sh</u> ets.  | diu azār je dute witsī                                                                                |
| 17. sapits.         | 1006.<br>diu asār je duts witsī<br>(sometimes asār is used).                                          |
| 18. ashtite.        | 2000. puch azār.                                                                                      |
|                     |                                                                                                       |

The Kāfirs, it will be seen, like the tribes of the Russian Caucasus, count by twenties. † Sir George Robertson informs me that, in the high figures, their counting is not only very rapid but remarkably accurate, in spite of the apparent drawback.

<sup>\*</sup> The following numerals, differing from the above, are in the Collection of the Reverend Worthington Jukes, viz., 40, dust; 50, twā ditus; 60, chatwāte; 70, pachwäte; 80, shotsa; 90, sudat; 100, humbuts. Note a French similarity "quatre vingt."

#### ORDINALS.

| panishr,                      | first.        | witsī ptiwar, (       | ?) twentieth.      |
|-------------------------------|---------------|-----------------------|--------------------|
| panishr stē ptibar, (?)       | second.       | poch witsi ptiw       | ar, (?) hundredth. |
| trē ptiwar, (?)               | third.        |                       |                    |
| 68. Duplication is expr       | ressed thus : |                       |                    |
| dūēpōr, two-                  | fold.         | duts ē pōr,           | ten-fold.          |
| 69. Distributive Nume         | erals :       |                       |                    |
| yo narik, } one<br>yo kūrē, } | by one.       | yo trā trē,           | three by three.    |
| yō dodun, two                 | by two.       | yō cha <u>sh</u> ton, | four by four.      |
| 70. Fractions, etc            |               |                       |                    |
|                               | 4 and 1       | timet                 | half.              |
| chillai, quar                 | ter.          | t <b>i</b> nch,       | 11811.             |

#### (VIII) MISCELLANEOUS.

71. The following are some of the ordinary weights and measurements:-

| manna,      | $2\frac{1}{3}$ seers, (5 lbs.) | ē dusht,         | { elbow to end of middle finger. |
|-------------|--------------------------------|------------------|----------------------------------|
| kazhē,      | 15 " (30 lbs.)                 | • au <u>o</u> r, | L middle finger.                 |
| shto kazhē, | 60 " (120 lbs.)                | ē giats,         | neck to ditto.                   |
| drisht,     | span.                          | ē lambar         | from shoulder to ditto.          |
| . 7 74      | elbow to end of                |                  | ( ditto.                         |
| maro dusht, | elbow to end of clenched fist. | ë potten,        | a pace.                          |

72. The following are divisions of the day :-

| g <b>ār</b> ām ettā, | cock crow,<br>dawn. | radhar (rōtar)<br>brābar, | midnight.                    |
|----------------------|---------------------|---------------------------|------------------------------|
| ruch bā,             | daylight.           | grish painji,             | from 3 p.m.<br>till evening. |

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•

| sū pti, { time of the sun's appearance. yazhi-wēl, morning. grish-bā, noon. sū tsāwen bibā, } sunset. | sü ohunsli,<br>sõ yür,<br>patramjuk, | sunrise.<br>{ evening twilight,<br>sun-down.<br>night. |
|-------------------------------------------------------------------------------------------------------|--------------------------------------|--------------------------------------------------------|
|-------------------------------------------------------------------------------------------------------|--------------------------------------|--------------------------------------------------------|

73.

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CARDINAL POINTS.

|        | (no word, unless " to-                | East, sunrise way, | sū chunzli pōr.                 |
|--------|---------------------------------------|--------------------|---------------------------------|
| North, | wards the Great<br>Bear," prusht pör, | West, sunset way,  | sū puēli por,<br>sū puesth por, |
| South, | ( is used).<br>(no word).             |                    | sū puettan pör.                 |

74. The following information is given by the Reverend Worthington Jukes :--

#### DAYS OF THE WEEK.

| dilkãr, | Sunday.   | sawor wasa,  | Wednesday. |
|---------|-----------|--------------|------------|
| shpah,  | Monday.   | namāch wasā, | Thursday.  |
| attri,  | Tuesday.  | agar,        | Friday.    |
|         | sād wasā, | Saturday.    | -          |

#### THE MONTHS.

There are twenty days in a month, and eighteen months (360 • days) in a year.

| nilon,               | lst m | onth of a year. |
|----------------------|-------|-----------------|
| • <u>sh</u> ūt,      | 2nd   | ditto.          |
| 3                    | 3rd   | ditto.          |
| palrāna,             | 4th   | ditto.          |
| badi pāsha,          | 5th   | ditto.          |
| ka <del>r</del> īna, | 6th   | ditto.          |
| nakĩrwa,             | 7th   | ditto.          |
| mālā,                | 8th   | ditto.          |
| wāgcha,              | 9th   | ditto.          |

• Mr. C. Rose, after making enquiries, says there are 380 days in a year, vis., 200 summer days and 180 winter days. There are seven days in a week, and Friday is a day of rest.

#### THE MONTHS-continued.

| wariān sherwa, | 10th m | onth of a year. |
|----------------|--------|-----------------|
| ses kra,       | 11th   | ditto.          |
| wutsa satkiya, | 12th   | ditto.          |
| aiyo,          | 13th   | ditto.          |
| mãr wãra,      | 14th   | ditto.          |
| drīn,          | 15th   | ditto.          |
| mansia, (?)    | 16th   | ditto .         |
| do mansia, (?) | 17th   | ditto.          |
| watta,         | 18th   | ditto.          |

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# ( 67 )

# SENTENCES.

ENGLISH-BASHGALI.

# A

- 1. He is a very able man.
- Chitrāl is above Broz (i.e., up <u>Sh</u>drāl Brosa tā chīr ess. stream).
- By an accident Mirak's gun went off and Basti was hit.
   Basti died. It was not by design that Mirak killed Basti.
- 4. My whole body aches much. I cannot go.
- 5. The Charwelo also says his head aches.
- 6. This year all the fruit is acid.
- 7. The dog is across the river.
- 8. My horse is very active.
- 9. This egg is addled.
- 10. By going there what advantage is there ?
- 11. That man's advice is not good.
- 12. My father is a good man: his advice is good.
- 13. Break this wood with an adze.
- 14. Come after me.
- 15. Come after five days.

16. We three will go after four days.

- 17. Stay here. Come after ten days.
- 18. In the early afternoon (noon to 3 P.M.:) it is very hot: in the late afternoon (3 P.M. to evening) it is cool.

Ikiā • biliuk damtol manchi ess. Shdrāl Brosa tā chīr ess.

Mīrak tapak bējaş bar odei Basti tā prepti. Basti marā. Mirak tinj biti Basti n'jāriā.

läs sundi jitt bilugh bradzott. N'pä banom.

Chārwēli di ids shai bradzott kutt.

- Ina se sundi kazhwaj cheno asht.
- Kũri poh për's.
- Ia ushp bilugh damtol ess.
- Inā aikūn (azhā) pakkhēl biss.
- Aki gusthā kai öd bā?

Ikiā manchi vari less n'ess.

Iā tott le manchi ess: iki vari less.

- Inā dār woshi mēsh pețt.
- Iā ptior (ptiwar, or tibar) ats.

Poch wos ptiwar ats.

- Emā troi manchī shto wos ptiwar ēmish.
- Anio nishē. Duts wos ptiwar ats.
- Grishbō bilugh tapi ess: grishpainji shillā bā.
- As Kafirs use the fewest possible words to express their meaning, they would, in talking to one another, omit many of the pronouns and post-positions which have been given in these sentences.

### ENGLISH-BASHGALI SENTENCES.

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| 19. What is your father's age?                                                                                   | Totta tā chok sē bissā?                               |
|------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|
|                                                                                                                  | Iã tött bilügh manjar ess.                            |
| 21. To agree to my words is good<br>for you.                                                                     | Iã warī wagā : tū lestabalā,                          |
| 22. Agriculture is good for man.                                                                                 | Ptul kudām karbo manchī lesta-<br>balā.               |
| 23. I have no ailment.                                                                                           | Iā bradzo n'assum.                                    |
| 24. My father has no ailment.                                                                                    | Iã tottia kai bradzo nēss.                            |
| 25. Silence ! my brother is aiming.                                                                              | Chūsht ōshī ! iā bra tapik damitt.                    |
| 26. To-day the air is cold.                                                                                      | Pshtarak (shtarak or shtak) dumish-<br>tatt: shil bā. |
| 27. In my valley to-day there is no <i>air</i> :                                                                 | Emá b'gul shtarak dumi n'ishtatt.                     |
| 28. Alas! my son is dead.                                                                                        | Hai hai! iä pitr mara.                                |
| 29. That sepoy is very alert.                                                                                    | Inā spāhī bilugh damtol ess.                          |
| 30. This is the place where ducks <i>alight</i> .                                                                |                                                       |
| 31. All my horses have died.                                                                                     | Iā ushp sang marā.                                    |
| 32. All we will go.                                                                                              | Ema sang ēmish.                                       |
| 83. All the men have gone.                                                                                       | Manchi sang gawā.                                     |
| 34. On that hill there is always snow.                                                                           | Askē badō sundī zîm ess.                              |
| 85. The Mehtar allowed it.                                                                                       | Mehr manchië vari damitt.                             |
| 36. Do you allow me to depart ?                                                                                  | Iã purugul bosellā ?                                  |
| 87. I, having paid my respects to<br>the Mehtar, am allowed<br>(have got my leave) to de-<br>part, and am going. | Mehr salām gaitī ēlom: purā<br>grosam.                |
| 38. Are you going alone; or<br>does your brother go with<br>you?                                                 | Tū parki afzöshā; tū brá dī afzio ?                   |
| 39. My son will also go.                                                                                         | Iã pitr di afrio.                                     |
| 40. I don't walk: I always ride.                                                                                 | Ots pottm n'aistam : sang ushpo •<br>mësh ëlom.       |
| <b>41.</b> This is amazing work.                                                                                 | Inā kudūm lē varī ass.                                |
| 42. Among them one is a thief.                                                                                   | Amnio p'mich eo shtär ess.                            |
| 43. To be angry is not good,                                                                                     | Mashikr boh less noh,                                 |
|                                                                                                                  | •                                                     |

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| 44. Don't be angry: I will give you bread.                 | Tā kabā na bō : õts buri prēlom.                              |
|------------------------------------------------------------|---------------------------------------------------------------|
| 45. Yesterday my father became<br>very angry.              | Dus tõtt bilugh mashoghott.                                   |
| 46. If you go, I will be angry.                            | Tū gujbā iā burubiz bolam.                                    |
| 47. I won't go: don't be angry.                            | Ns ēlom : burubiz n'kshi.                                     |
| 48. My brother has gone: my father is very <i>angry</i> .  | Iā brā gwā : <i>i</i> ā̃ tott bilu <u>gk</u> burubiz<br>kutt. |
| 49. My ankle is broken.                                    | Iã grik profangese.                                           |
| 50. My brother has not come:<br>another man has come.      | Iãs brâ n'aiyo : ē var manchi aiyo.                           |
| 5). When he asked me, what answer gavest thou?             | Inā kuttātom tū kā walach ?                                   |
| 52. I gave answer "I am sick"<br>(my body aches), moreover | O waliosam "jitt bradsöt."                                    |
| I answered "Thou liest."                                   | Õ walatom "tü larich."                                        |
| 53. Here there are many ants.                              | Amni gu lë asht.                                              |
| 54. In winter ants don't bite.                             | Zawor ga n'chagotitt.                                         |
| 55. In spring ants bite much.                              | Wizdör gü bilügh chagötitt.                                   |
| 56. There are verily ants; but they don't bite.            | Amni buasht gü asht ; n'chagðistt.                            |
| 57. I am very anxious; my father<br>must die.              | Ots wü <u>sh</u> tātum ; <i>tōtt ma<sub>t</sub>stt</i> .      |
| 58. Is there (any) bhūsa (chopped straw) there?            | Hatt tüs assö?                                                |
| 59. Come here apart.                                       | Ani parkiē ats.                                               |
| 60. Does the enemy appear?                                 | Mashūbata waranțam ?                                          |
| 61. This apple is sweet.                                   | Inā parr arus ess.                                            |
| 62. How many men are there in this village ?               | Inām bagrām cho manchizā ?                                    |
| 63. The Afghan soldiers are bad.                           | Aoghānī spāhī digarā.                                         |
| 64. Why are they bad?                                      | Куй digar өввя?                                               |
| 65. This year apricots are sour.                           | Inā sē sarren chinai bā.                                      |
| 66. My lower arm is broken.                                | Iã dūi pētangawā.                                             |
| 67. On my upper arm is a boil.                             | Iãst gotra ta ponduk ba.                                      |
| 68. In my armpit is a boil.                                | Iãst kachkarā ponduk bā.                                      |
| 69. In the Afghan army there are<br>a hundred men.         | doghānī sain põnj watsa manchi essā.                          |

| 70. Walk up and down around my house.                              | Inā p'amū barēla palgā.                                         |
|--------------------------------------------------------------------|-----------------------------------------------------------------|
| 71. The dog keeps watch around my house.                           | Krũi inā p'amū palangett.                                       |
| 72. Bring my bow and arrow.                                        | Iāst dron shūr giats.                                           |
| 73. If you eat arsenic, you will die.                              | Skå yūlosh mylosh.                                              |
| 74. Ascortain : have the coolies come?                             | Aishkshi: barwai awettett?                                      |
| 75. I have ascertained: the coolies have not come.                 | Ai <u>sh</u> k <del>r</del> ā: barwai n'af <b>sia.</b>          |
| 76. Go to that house; ascertain well.                              | lkiā p'amū wigi alsh kshl.                                      |
| 77. The mountain-ash wood is strong.                               | Tür där dang ess.                                               |
| 78. Take away the fire ashes.                                      | Ango tā assā gaiē.                                              |
| 79. Bring so much ashes.                                           | Azhik assē giats.                                               |
| 80. How much ashes shall I bring ?<br>What are you asking ?        | Ohuk assē awēm ? Tū kai aĭ <u>sh</u><br>kuch ?                  |
| 81. The aspen tree wood is useless.                                | Romēn dār kai ūd n'ess.                                         |
| 82. This ass is not good.                                          | Inī kur less n'ess.                                             |
| 83. I have fallen; give me assist-<br>ance.                        | Ots lunissā ; iễ lestā k <u>sh</u> ī.                           |
| 84. Thou art giving me assistance ;<br>I will give thee a present. | Tū iã litra prêchi; Õts tū gã lesta<br>kulom.                   |
| 85. Yesterday I gave thee much bread. Atest thou it?               | Dus õts bilūg <u>h</u> bor pta'sh. <b>Tu</b><br>sundi iārā?     |
| 86. I was very hungry, and ate it all.                             | Iã bilugh áttā bissī sundī i <b>yā.</b>                         |
| 87. Thou art very foolish: why<br>atest thou all of it?            | Tū bilu <u>gh</u> chara <u>gh</u> ess : kyā sundī<br>iyānā tū ? |
| 88. Look! the enemy makes an <i>attack</i> (has come on).          | Aĩ̃ sh kshĩ. Pachan warī afzio.                                 |
| 89. The dog attacked me.                                           | Krũi iễ tễ atursiā.                                             |
| 90. He is a quiet man : don't attack him.                          | Naluzo manchi ess : kai n'amniò.                                |
| 91. Make an <i>attempt</i> to carry out this intention.            | Inā warī kuttā k <u>sh</u> ē.<br>•                              |
| 92. You don't make an attempt<br>to follow this up.                | Tū inā warī nai kutt ko <u>sh</u> ī.                            |

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| 93. In autumn the leaves fall.                      | Shāro por viyanyā.                                                |
|-----------------------------------------------------|-------------------------------------------------------------------|
| 94. Autumn is the time for reaping                  | Shāra bā katī erwomâ.                                             |
| wheat.                                              |                                                                   |
| 95. This year many avalanches                       | Inā sē turus lē āyā.                                              |
| have come down.                                     |                                                                   |
| 96. In the spring many (avalanches of) stones fell. | Wasut võtt lē afziā.                                              |
| 97. That man is very avaricious.                    | Ikiā manchi bilugh dang e.s.                                      |
| 98. Avoid tobacco.                                  | Tamkio lestā (?) k <u>s</u> h <b>i.</b>                           |
| 99. Avoid meat five days; you are ill.              | Pōj wōs ano lestā (?) k <u>sh</u> i; iu<br>bradso osi <u>s</u> h. |
| 100. I await my son.                                | Ots is pitr aish kuttam.                                          |
| 101. At the time for prayer awake                   | Namāj biba iā betso.                                              |
| . <b>m</b> e.                                       |                                                                   |
| 102. My son is asleep: awake him.                   | Iã pitr pshuiss : betso.                                          |
| 103. My aze has become blunt.                       | Iã pets dura biss.                                                |
| •                                                   | •                                                                 |
| 104. My back aches.                                 | <b>3</b><br>Iã tã pti bradzott.                                   |
| 105. Go back! bad man!                              | Tā digar manchī assish ! ani ats !                                |
| 106. If you will come back, I shall                 |                                                                   |
| kill you.                                           |                                                                   |
| 107. You are tired: I shall give                    | Tū gatrā bissish : tū achu kalom.                                 |
| you a back.                                         |                                                                   |
| 108. The Afghans are bad men.                       | Aoghānī manchī digar asht.                                        |
| 109. In that bag is cloth.                          | Sta pashtuga ta lattri asht.                                      |
| 110. Bring my bag here.                             | Iā pashtuga ani gats.                                             |
| 111. A thief has taken off my bag.                  | Shtaro pashtug brā.                                               |
| 112. The coolies have brought my                    | Ani barwai lattri arwristai.                                      |
| baggage here.                                       |                                                                   |
| 113. That man is bald.                              | Stā manchi kurr ess.                                              |
| 114. The polo ball is lost.                         | Chkrī <i>piz biā</i> .                                            |
| 115. That man is bandy logged (?)                   | Stā manchī kuttātt.                                               |
| (limps).                                            |                                                                   |
| 116. On the bank of the river                       | Ao tawarð pi <u>sh</u> lē ai.                                     |

there are many flowers. 117. The dog is barking: thieves Krui rattatt : shtar ayasar.\* have come.

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• This form is probably for suphony in connection with the word preceding it.

# ENGLISH-BASHGALI SENTENCES.

| 118. This year wheat is bad; barley                                                     | Inā sē gum digara bā; rits lesta               |
|-----------------------------------------------------------------------------------------|------------------------------------------------|
| is good.                                                                                | bā.                                            |
| 119. Make a basket for me.                                                              | lã dugẽ kawa kshē.                             |
| 120. I want a big basket.                                                               | Iã ál kawā ūd ess.                             |
| 121. Here last year there was a battle.                                                 | Inā pō ē shuj biss.                            |
| 122. The Badakhshi fights (makes battle) well.                                          | Tā <u>zh</u> ī <u>sh</u> uj lesta kulai.       |
| 123. My horse is a bay colour.                                                          | Iã ushup pilir ess.                            |
| 124. I see a beacon on the hill.                                                        | Bado ango varion.                              |
| 125. Light a beacon on that hill.                                                       | Ikiā bado ango k <u>sh</u> i.                  |
| 126. What is in the bird's beak?                                                        | Marangatsē no <b>shpā kai</b> etsal ?          |
| 127. Take care! that beam is not strong.                                                | Tarāchi bo! Ikiā argrū less ness.              |
| 128. There are clouds. We cannot<br>see the constellation of the<br><i>Great Bear</i> . | Nāru ess. Prusht n'warion butt.                |
| 129. Are there bears in the forest?                                                     | Ba ben its assē?                               |
| 130. My foot pains: I cannot bear it.                                                   | Iã tã kũr bradzott : dôr na butt.              |
| 131. That man's beard is become white.                                                  | Stā manchi tā dāri kaz <u>h</u> ira bissā.     |
| 132. I am beaten: I will beat thee<br>to-morrow.                                        | Ots vina vina karesam : dalkiš tu<br>vilom.    |
| 133. That bird is beautiful.                                                            | Ikiā marangats abingar aiets.                  |
| 134. I am tired : get my bed ready.                                                     | Gatrā buti ayā sum : prushi<br>gaiets.         |
| 135. I have brought a bed; there is<br>no bedding.                                      | Prusht awārā ; ashtrith n'aiesht.              |
| 136. In Bumboreth there are many bees.                                                  | <i>Māmreth</i> mācherik <i>lē a<u>sh</u>t.</i> |
| 137. Bees will sting. I am afraid<br>of them.                                           | Mācherik aturshilā : widerthum                 |
| 138. Go thou before, I will follow.                                                     | Tū nashtar wai bō, ỗts piturai-<br>salam.      |
| 139. What does that man beg?                                                            | Ikiä manchi kai awegutā ? •                    |
| 140. He is not a bad man : he is a beggar.                                              | Īkīā manchī digar n'ess: naluz v<br>wās.       |
| 141. Sit behind me on the horse.                                                        | Tũ ushpa tã iã ptiora nishë.                   |

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| 142. After eating food don't belch.                              | Yā shūti pehuikbut n'kshi.                                                      |
|------------------------------------------------------------------|---------------------------------------------------------------------------------|
| 143. I place no belief in him.                                   | $ar{O}$ ikiā warīa n'patītom.                                                   |
| 144. Thou liest! I don't believe<br>thee.                        | Tū laraichi ! tū wari n'patitom.                                                |
| 145. I have eaten too much: my belly aches.                      | <u>Sh</u> õ le iarõ : ktol bradzott.                                            |
| 146. Brōz is <i>below</i> (down stream from) Chitr <b>ā</b> l.   | Bruz <u>Sh</u> irālo stā nīr ess.                                               |
| 147. My walking stick is become bent.                            | Iãs manus dür biss.                                                             |
| 148. My father is here : and besides<br>him no one.              |                                                                                 |
| 149. We have bhusa and besides<br>nothing else for horses.       | Emå ta ushp dugë tus ass: wara<br>n'aiesht.                                     |
| 150. Is the Afghān or Chitrāli<br>soldier the better ?           | Aoghān spāhī lest ai na Bilian<br>lest ai ?                                     |
| 151. Between Chitral and Broz<br>there is no village.            | <u>Sh</u> drāl Brus p'mij grām n'aie <u>sh</u> t.                               |
| 152. Beware ! the dog will bite you.                             | Taraĭchī bō! krũi aturshilon.                                                   |
| 153. Beyond Drösh there is no cul-<br>tivation.                  | Dryus pär kujhi n'aie <u>sh</u> ta.                                             |
| 154. The big dog is amiable; the small dog bites.                | Ål krũi less: parmen krũi atur-<br>shilon.                                      |
| 155. On the <u>Shā</u> wal pass there are<br>no <i>birds</i> .   | Shāwalo bado marangats n'aiesht.                                                |
| 156. Give me a bit of meat.                                      | Iã dugë achok bitā gats.                                                        |
| 157. Put a bit in my horse's mouth.                              | Iā ushp ashi lazhom giats.                                                      |
| 158. The horse bites; don't go near.                             | Ushp analā; tavaraī n'ai.                                                       |
| 159. The black horse fell yesterday.                             | Zhi ushp dus luni.                                                              |
| 160. Fetch me two blankets from the house.                       | Pamu stha iã dugễ dū jil gaiets.                                                |
| 161. Bleed him from his forearm.                                 | Ikiā manchi dui tā lui bekabā.                                                  |
| 162. In the spring a strong wind blew, and the fruit is damaged. | Wazut damu bilu <u>gh</u> u <b>sh</b> tiā;<br>ka <u>zh</u> wa <u>zh</u> nadziā. |
| 163. The old man is blind.                                       | Purdik kär ess.                                                                 |
| 164. My pugri has blood on it.                                   | Ohadrā lui tapola biss.                                                         |
| 165 Spring has come ; the trees are blossoming.                  | Wasut biā : amnī sirēn pizh bā.                                                 |

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| 166. Blow the fire hard.             | Angā kotā parchiō.                                    |
|--------------------------------------|-------------------------------------------------------|
| 167. The wind blows very fast.       | Dumī lē ishtett.                                      |
| 168. Blow out the light.             | Ohirāgh yāsē.                                         |
| 169. My knife has become blunt.      | Iã chaku duru biss.                                   |
| 170. He is a very boastful man.      | Inā manchī bilugh wichtawal ess.                      |
| 171. Take care! there is a bog ahead | Tarāchibo ! Vott (?) athalon.                         |
| of you.                              | • •                                                   |
| 172. My leg has a boil on it.        | Kür apsiss.                                           |
| 173. For making tea boil water.      | Ohai kshi : do tipão.                                 |
| 174. There is a bone in my dog's     | Krutp'asht attiss.                                    |
| mouth.                               |                                                       |
| 175. My bow is broken.               | I dron pettangus.                                     |
| 176. Give this box to the coolie.    | Inā sanduka manchiš prē.                              |
| 177. What is this boy's age ?        | Inā marirē major kai ess ?                            |
| 178. That man has no brain: he is    | Stā mustā ness : bēr ass.                             |
| foolish.                             | •                                                     |
| 179. Break a branch of that tree.    | Iki shtom chur peta.                                  |
| 180. In order to get some brass I    | Dara waiētum : Shdrāl aiētum.                         |
| am going to Chitral.                 |                                                       |
| 181. The Government soldiers are     | Sarkāro spāhī sang zūr wai.                           |
| all brave.                           |                                                       |
| 182. Bravo ! don't be tired !        | Shamash! N'gatribola.                                 |
| 183. Thy ass is braying loud;        | Tū kur bilu <b>gh</b> rārra kutt: kor                 |
| listen! all the asses are            | <i>ktī ! Sang kur</i> rāŗŗa kuttett.                  |
| bray <b>i</b> ng.                    |                                                       |
| 184. Get bread for my coolies.       | Iā barwai dugē yashi giats.                           |
| 185. If you won't give me bread,     | Tu i bor n'prenjībā öts mrlom.                        |
| I will die.                          |                                                       |
| 186. Do not break my box.            | $I \widetilde{ar{a}} ~ a dr ar{e}$ n'pitzen kahē.     |
| 187. If you break the wood, I shall  | Tu dār perinjībā ots kabā balom.                      |
| be very angry.                       | -                                                     |
| 188. My box is broken (break).       | Iā adr pitzen biss.                                   |
| 189. My father has broken (break)    | Iāsi tott kür pețț ons.                               |
| his leg.                             |                                                       |
| 190. If you fall, your leg will      |                                                       |
| break, as you are fat.               | ktol manchł assi <u>sh</u> .                          |
| 191. Go slow: let the horse take     | Ohillā ats: u <u>sh</u> p <b>sh</b> us ka <b>lon.</b> |
| breath.                              |                                                       |
| 192. The Chārwelo gives bribes.      | Chārwēli wārā lettrī prett.                           |
|                                      | •                                                     |

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| 193. Make bricks for my house.                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Iā amu dugē mrai puru ksht.                                                                                                                                                                                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 194. My girl is a bride.                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <i>Iā̃ jūī</i> noi bazisnā prēlom.                                                                                                                                                                                                                                               |
| 195. To make a bridge, get beams.                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Sū tamu katī giats.                                                                                                                                                                                                                                                              |
| 196. The <i>bridge</i> is broken.                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Sū pețang ess.                                                                                                                                                                                                                                                                   |
| 197. In my country there are us                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Em</b> â gul tã dão siu n'a <u>sh</u> t.                                                                                                                                                                                                                                      |
| wooden bridges.                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                  |
| 198. My horse's bridle is broken.                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Iã ushp tã lazhom petangess.                                                                                                                                                                                                                                                     |
| 199. Bring a broom, clean this                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Skā giats, inānī jagā skā.                                                                                                                                                                                                                                                       |
| place.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                  |
| 200. Bring bread for me and fetch                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Iā dugā bor gats; ushp dugā yus                                                                                                                                                                                                                                                  |
| grass for the horse.                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | $\sim gats.$                                                                                                                                                                                                                                                                     |
| 201. I fell; my stick broke.                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Õts piltam ; märi parengi.                                                                                                                                                                                                                                                       |
| 202. My arm is broken.                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Iā̃sī dusht perongā.                                                                                                                                                                                                                                                             |
| 203. Thy brother has fever.                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>Tū</b> br <b>å</b> ontsatt.                                                                                                                                                                                                                                                   |
| 204. My brother is dead.                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Iāsi brâ mŗā.                                                                                                                                                                                                                                                                    |
| 205. I brought one load of grass; my                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                  |
| brother brought two loads.                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | yus awāŗā.                                                                                                                                                                                                                                                                       |
| 206. My father is a very strong                                                                                                                                                                                                                                                                                                                                                                                                                                                              | läsi tott biluk karwa manchi ess :                                                                                                                                                                                                                                               |
| man: he has brought three                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | troi bōr yus awāŗā.                                                                                                                                                                                                                                                              |
| loads of grass.                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                  |
| -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                  |
| 207. The woman is bringing a bas-                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Jugūr kawā awett, sai wõtt awāŗā.                                                                                                                                                                                                                                                |
| 207. The woman is bringing a bas-<br>ket, and the men have                                                                                                                                                                                                                                                                                                                                                                                                                                   | Jugūr kawā awett, sai wõtt awārā.                                                                                                                                                                                                                                                |
| 207. The woman is bringing a bas-                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Jugūr kawā awett, sai wõtt awārā.                                                                                                                                                                                                                                                |
| 207. The woman is bringing a bas-<br>ket, and the men have                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                  |
| 207. The woman is bringing a bas-<br>ket, and the men have<br>brought stones.                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                  |
| <ul> <li>207. The woman is bringing a basket, and the men have brought stones.</li> <li>208. The Chārwēlo is a brutal man.</li> </ul>                                                                                                                                                                                                                                                                                                                                                        | Chārwēli maahu-wā manchi ess.<br>Iã zhum n'piess.                                                                                                                                                                                                                                |
| <ul> <li>207. The woman is bringing a basket, and the men have brought stones.</li> <li>208. The Chārwēlo is a brutal man.</li> <li>209. My buck wheat is not ripe.</li> </ul>                                                                                                                                                                                                                                                                                                               | Chārwēli maahu-wā manchi ess.<br>Iã zhum n'piess.                                                                                                                                                                                                                                |
| <ul> <li>207. The woman is bringing a basket, and the men have brought stones.</li> <li>208. The Chārwēlo is a brutal man.</li> <li>209. My buck wheat is not ripe.</li> <li>210. There are many bugs in this bed.</li> </ul>                                                                                                                                                                                                                                                                | Chāswēli mashu-wā manchi ess.<br>Iā shum n'piess.<br>Inā prushti tā guzr lē asht.                                                                                                                                                                                                |
| <ul> <li>207. The woman is bringing a basket, and the men have brought stones.</li> <li>208. The Chārwēlo is a brutal man.</li> <li>209. My buok wheat is not ripe.</li> <li>210. There are many bugs in this bed.</li> <li>211. Build a house for me here.</li> </ul>                                                                                                                                                                                                                       | Chāswēli maahu-wā manchi ess.<br>Iā ahum n'piess.<br>Inā prushti tā guzr lē asht.<br>Iā dugā ani amu kahi.                                                                                                                                                                       |
| <ul> <li>207. The woman is bringing a basket, and the men have brought stones.</li> <li>208. The Chārwēlo is a brutal man.</li> <li>209. My buck wheat is not ripe.</li> <li>210. There are many bugs in this bed.</li> <li>211. Build a house for me here.</li> <li>212. All my bulls have died.</li> </ul>                                                                                                                                                                                 | Chāswēli mashu-wā manchi ess.<br>Iā shum n'piess.<br>Inā prushti tā guzr lē asht.<br>Iā dugā ani amu kshī.<br>Iā ashu sang mpishtā. "Chālu nah                                                                                                                                   |
| <ul> <li>207. The woman is bringing a basket, and the men have brought stones.</li> <li>208. The Chārwēlo is a brutal man.</li> <li>209. My buck wheat is not ripe.</li> <li>210. There are many bugs in this bed.</li> <li>211. Build a house for me here.</li> <li>212. All my bulls have died. Chānlū's bull is very fat</li> </ul>                                                                                                                                                       | Chāswēli maahu-wā manchi ess.<br>Iā ahum n'piess.<br>Inā prushti tā guzr lē asht.<br>Iā dugā ani amu kahi.                                                                                                                                                                       |
| <ul> <li>207. The woman is bringing a basket, and the men have brought stones.</li> <li>208. The Chārwēlo is a brutal man.</li> <li>209. My buck wheat is not ripe.</li> <li>210. There are many bugs in this bed.</li> <li>211. Build a house for me here.</li> <li>212. All my bulls have died. Chānlū's bull is very fat this year.</li> </ul>                                                                                                                                            | Chāswēli maahu-wā manchi ess.<br>Iā shum n'piess.<br>Inā prushti tā guzr lē asht.<br>Iā dugā ani amu kahi.<br>Iā ashu sang mpishtā. "Chālu nah<br>ashu inā sē bilugh kurt ess.                                                                                                   |
| <ul> <li>207. The woman is bringing a basket, and the men have brought stones.</li> <li>208. The Chārwēlo is a brutal man.</li> <li>209. My buck wheat is not ripe.</li> <li>210. There are many bugs in this bed.</li> <li>211. Build a house for me here.</li> <li>212. All my bulls have died. Chānlū's bull is very fat this year.</li> <li>213. On the ground I found a</li> </ul>                                                                                                      | Chāswēli maahu-wā manchi ess.<br>Iā ahum n'piess.<br>Inā prushti tā guzr lē asht.<br>Iā dugā ani amu kahi.<br>Iā aahu sang mpishtā. "Chālu nah<br>aahu inā sē bilugh kurt ess.                                                                                                   |
| <ul> <li>207. The woman is bringing a basket, and the men have brought stones.</li> <li>208. The Chārwēlo is a brutal man.</li> <li>209. My buok wheat is not ripe.</li> <li>210. There are many bugs in this bed.</li> <li>211. Build a house for me here.</li> <li>212. All my bulls have died. Chānlū's bull is very fat this year.</li> <li>213. On the ground I found a flat bullet.</li> </ul>                                                                                         | Chāswēli maahu-wā manchi ess.<br>Iā ahum n'piess.<br>Inā prushti tā guzr lē asht.<br>Iā dugā ani amu kahi.<br>Iā aahu sang mpishtā. Chālu nah<br>aahu inā sē bilugh kurt ess.<br>Inā bhima tā epol toch badui goi.                                                               |
| <ul> <li>207. The woman is bringing a basket, and the men have brought stones.</li> <li>208. The Chārwēlo is a brutal man.</li> <li>209. My buok wheat is not ripe.</li> <li>210. There are many bugs in this bed.</li> <li>211. Build a house for me here.</li> <li>212. All my bulls have died. Chānlū's bull is very fat this year.</li> <li>213. On the ground I found a flat bullet.</li> <li>214. Many men are gathered for the</li> </ul>                                             | Chāswēli maahu-wā manchi ess.<br>Iā ahum n'piess.<br>Inā prushti tā guzr lē asht.<br>Iā dugā ani amu kahi.<br>Iā aahu sang mpishtā. Chālu nah<br>aahu inā sē bilugh kurt ess.<br>Inā bhima tā epol toch badui goi.                                                               |
| <ul> <li>207. The woman is bringing a basket, and the men have brought stones.</li> <li>208. The Chārwēlo is a brutal man.</li> <li>209. My buck wheat is not ripe.</li> <li>210. There are many bugs in this bed.</li> <li>211. Build a house for me here.</li> <li>212. All my bulls have died. Chānlū's bull is very fat this year.</li> <li>213. On the ground I found a flat bullet.</li> <li>214. Many men are gathered for the burial.</li> </ul>                                     | Chāswēli maahu-wā manchi ess.<br>Iā ahum n'piess.<br>Inā prushti tā guzr lē asht.<br>Iā dugā ani amu kahi.<br>Iā aahu sang meishtā. Chālu nah<br>aahu inā sē bilugh kurt ess.<br>Inā bhima tā epol toch badui goi.<br>Bilugh manchi kānai dugā ayā.                              |
| <ul> <li>207. The woman is bringing a basket, and the men have brought stones.</li> <li>208. The Chārwēlo is a brutal man.</li> <li>209. My buok wheat is not ripe.</li> <li>210. There are many bugs in this bed.</li> <li>211. Build a house for me here.</li> <li>212. All my bulls have died. Chānlū's bull is very fat this year.</li> <li>213. On the ground I found a flat bullet.</li> <li>214. Many men are gathered for the burial.</li> <li>215. Burn that long stick.</li> </ul> | Chāswēli maahu-wā manchi ess.<br>Iā zhum n'piess.<br>Inā pruzhti tā guzr lē azht.<br>Iā dugā ani amu kahi.<br>Iā azhu sang mpizhtā. Chālu nah<br>azhu inā sē bilugh kurt ess.<br>Inā bhima tā epol toch badui goi.<br>Bilugh manchi kānai dugā ayā.<br>Ikiā drangai shtan luzhē. |
| <ul> <li>207. The woman is bringing a basket, and the men have brought stones.</li> <li>208. The Chārwēlo is a brutal man.</li> <li>209. My buck wheat is not ripe.</li> <li>210. There are many bugs in this bed.</li> <li>211. Build a house for me here.</li> <li>212. All my bulls have died. Chānlū's bull is very fat this year.</li> <li>213. On the ground I found a flat bullet.</li> <li>214. Many men are gathered for the burial.</li> </ul>                                     | Chāswēli maahu-wā manchi ess.<br>Iā shum n'piess.<br>Inā prushti tā guzr lē asht.<br>Iā dugā ani amu kahi.<br>Iā ashu sang meishtā. Chālu nah<br>ashu inā sē bilugh kurt ess.<br>Inā bhima tā epol toch badui goi.<br>Bilugh manchi kānai dugā ayā.                              |

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| 218. This butter is not clean.     | Inā nuri shtā n'biss.          |
|------------------------------------|--------------------------------|
| 219. Buy a rupee's worth of cloth. | E tang digri mari preti giata. |

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| 220. The white cow's calf is dead.                    | Kashiri gâo utser marā.                                     |
|-------------------------------------------------------|-------------------------------------------------------------|
| 221. Oall the old man.                                | Purduka walō.                                               |
| 222. The camel is a bad animal.                       | Shtur digar kor ess.                                        |
| 223. My horse is very fat and can-<br>not go.         | Iā u <u>shp</u> bilugh kartā biss, n'pā<br>bann.            |
| 224. You are a bad man : you take<br>no care.         | Tū digar manchī assish : tū kuduma<br>tin na ku <u>ch</u> . |
| 225. Have a care! don't throw down my load.           | Tū kushulwā kshī ! (Tarāchī bō !)<br>iā bor viār n'ūtē.     |
| 226. That man is very careless (foolish).             | Ikiā manchi bilu <u>gh</u> bēr ess.                         |
| 227. In that village is there any carpenter?          | Ikya bagrom dāo sella <i>sē ?</i>                           |
| 228. The carrier has fallen into the river.           | Barwai pō-ē lunis.                                          |
| 229. I am tired; I won't carry a                      | Gatrabissum ; bör n'awētum. Mirak                           |
| load. Mirak will carry the load of two men.           | dū manchion bor awēlā.                                      |
| 230. The cat has grown lazy and<br>won't catch mice.  | Pahiaah bērī biss ; mussu na<br>damitt.                     |
| 231. Catch that horse's bridle.                       | <i>Ikyē ushpē laz<u>h</u>om</i> d <b>a</b> mē.              |
| 232. All the <i>cattle</i> of this village have died. | Inā bragom gêo sang mŗā.                                    |
| 233. Put the big cauldron on the fire.                | Al tol ango p'tsiru watē.                                   |
| 234. What is the cause of your anger?                 | Tū kā kapā bosh ?<br>•                                      |
| 235. In that cave a dog is sitting.                   | Patel karoh krüi nishin ess.                                |
| 236. Oease this work.                                 | Inā kudūma bek <u>sh</u> i nishē.                           |
| 237. The ceiling of my house is                       | Inā p'amu argru digri biss.                                 |
| bad.                                                  |                                                             |
| 238. That is a celebrated carpenter.                  | Bilugh lõ dão sell ess.                                     |
| 239. The chaff (chopped straw) is                     | Sang tus agol tã digri biss.                                |
| all bad from rain.                                    |                                                             |

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| 240. The <i>chain</i> of my door is broken.                                      | Iã dū tã chima pēțanguss.                 |
|----------------------------------------------------------------------------------|-------------------------------------------|
| 241. Bring a chair for sitting on.                                               | Nizhisthā bon giats.                      |
| 242. This cloth is not to my taste;<br>change it.                                | Inā lattrī iā shotik n'bā; nmēlā<br>kshī. |
| 243. This <i>charcoal</i> is bad : it doesn't<br>burn.                           | Inā pē less n'asht : na parchitt.         |
| 244. To-day I will give <i>charity</i> ,<br>perchance my father will<br>not die. |                                           |
| 245. On my brother's <i>cheek</i> is a boil.                                     | lä brå naskor absiss.                     |
| 246. Bashgalī Kāfirs won't eat<br>cheese.                                        | Katā kilār n'yūlā.                        |
| 247. This year all the <i>cherries</i> are sour.                                 | Inā sē sang gilos chinosht.               |
| 248. My chest aches.                                                             | Iã zira bradzott.                         |
| 249. My hen has ten chickens.                                                    | Iã istri kakok duts kur asht.             |
| 250. My child is very ill.                                                       | Iã marir bilugh bradzo asht.              |
| 251. I have no <i>chimney</i> to my house.                                       |                                           |
| 252. I fell; my chin is broken.                                                  | Lunissam; aklī pror biss.                 |
| 253. The <i>Ohitrālī</i> soldier is not a bad man.                               |                                           |
| 254. My chest is big; that choga is tight.                                       | Iā ör wishtr ass ; shugā aron butt.       |
| 255. Here are two chogas: choose one.                                            | Ani dū shugā asht : eo gaiē.              |
| 256. In my clan are many men.                                                    | Emå tött brå lē asht.                     |
| 257. There is no <i>clay</i> here to make bricks.                                |                                           |
| 258. Your hand is dirty ; clean it.                                              | Tū doi mol biss ; dirē.                   |
| 259. Thy father's speech is clear.                                               | Tā tõtt warī less.                        |
| 260. That boy is very clever.                                                    | Stā marir bilugh kashul ess.              |
| 261. That cliff is bad : don't go near.                                          | Ikī ahti digar ess : atkhī n'iyē.         |
| 262. About 3 P.M. we will climb<br>the hill.                                     | Grish biznor ūm.                          |
| 263. I cannot <i>climb</i> this hill,                                            | Ots inā bado n'ai iam banam.              |

ENGLISH-BASEGALI SENTENCES.

| 264. To make a <i>cloak</i> fetch some black cloth. (¶)                        | Budsun husth dugã <u>ah</u> i sapp gais.                          |
|--------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 265. Bring two clods of earth for me.<br>266. This cloth is very thick.        | Iā dug <b>ā d</b> ū palel <u>ah</u> t giats.<br>Inā zapp būt ess. |
| 267. My <i>clothes</i> are dirty; wash them.                                   | . <b>.</b> .                                                      |
| 268. There are many clouds; per-<br>haps it will rain.                         | Nāru būt ess ; ingol kā agol bolan.                               |
| 269. Clean my coat.                                                            | Iå sbugi lesst kshi.                                              |
| 270. Who has killed my oock?                                                   | <i>Iãst</i> nai kakkak <i>kū jãriss</i> ?                         |
| 271. To-day the breeze is very cold.                                           | Starak gujr bilu <b>gh</b> dumi <sup>,</sup> yads.                |
| 272. This year there is no snow and no cold; it is quite warm.                 | Starak së zim di na ess, <u>sh</u> illä<br>n'ess ; iõp ess.       |
| 273. On account of the snow my feet are cold.                                  | Zīm-o-tā kūr pitsenwā.                                            |
| 274. The sun is set: it has become cold.                                       | Sū pãr lang biā : <u>sh</u> illā bā.                              |
| 275. I have eaten too much and<br>have colic (i.e., my stomach<br>is swollen). | Bilugh bori iär ; ktol apsiss.                                    |
| 276. Collect the sepoys and coolies<br>to-morrow at dawn.                      | Spāhi barwai dalkið attri wasnāo<br>(wasankrō) (?).               |
| 277. Sir ! the coolies are collected,<br>but the sepoys have not<br>come.      | Sāhibo! burwai wasa westai spāhi<br>noh osth.                     |
| 278. What is the colour of your father's horse ?                               | Tottchi ushpë kor kästh em ?                                      |
| 279. The asses, horses, and coolies have all come.                             | Kur, u <u>sh</u> p, barwai sang ayā.                              |
| 280. The sepoys complain that the<br>Chārwēlo is a very cruel<br>man.          | Spāhī kāsettett Chārwēlī bilugh<br>mashū oss.                     |
| 281. I considered the enemy had fied.                                          | Õ̃ts wu <u>sh</u> tatāsum mashu war <b>i</b><br>mikiā. •          |
| 282. Converse slowly; say every<br>word separately.                            | Ohille wals; parē warī kūrē kūrē<br>wals.                         |
| 283. Call a man to cook my food.                                               | Iā buri a <u>sh</u> kurik 8 manchi oshti<br>giate.                |

| 284. The coolie is fallen in the river :<br>he is drowned in the water.              | Barwai po-ē luniss: ao p'mi <u>ch</u><br>pizbiā.                |
|--------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| 285. I have no cord to fasten the box.                                               | 8 andok giristh dugã kanik n'aiesht.                            |
| 286. This is a dry year : the corn is dried up.                                      | Inā sē damkol wā : gam lu <u>s</u> hingwā.                      |
| 287. I saw a corpse in my field this morning.                                        | Iniash ptul p'mich é manchi<br>mrisht waris'm.                  |
| 288. My brother is very corpulent,<br>and can't walk.                                | Iã brå âl ktol oss ; n'palangett.                               |
| 289. In my village there is my<br>brother's <i>cotton crop</i> and no<br>one else's. | Iã bagrom iã bráo karboah asht;<br>warā n'aissht.               |
| 290. I want medicine for my father ;<br>he coughs much.                              | Iã tōtt dugã u <u>sh</u> u wagattam ; bilu <u>gh</u><br>kasitt. |
| 291. Count the coolies: how many<br>are there?                                       | Barwai gìrē : chē manchī asht ?                                 |
| 292. My country is very pretty; it is<br>highland (cold).                            | Emá gol bilu <u>gh</u> shingari ass ; shil<br>ass.              |
| 293. My cousin has seven bulls.                                                      | Tōttī piţr (?) sott ashu ai.                                    |
| 294. Is your brother's cow white or<br>black?                                        | Ta brozhi gito kashiri izha, zhi azza?                          |
| 295. My cowherd is a very bad man.                                                   | Iā gåo patsā (psawai) bilagh digar<br>manchī ess.               |
| 296. That orag is very steep : a horse cannot go.                                    | Stä kti ukar ess: u <u>sh</u> p na batt.                        |
| 297. That boy got cramp in the water owing to the cold.                              | Stå liliwak poi tä shille där biti<br>ass.                      |
| 298. He is a thief. See! he is<br><i>creeping</i> like a dog.                        | Shtär ess. Aishi ! krii chor shto-<br>kuroett.                  |
| 299. From the <i>crest</i> of the hill Drö <u>th</u> appears in view.                | Bado abaio ste Dryus worantus.                                  |
| 300. Forgive my <i>crime</i> ; I am a poor man.                                      | $I\tilde{a}$ vari (?) bakshiō; $\tilde{b}$ garib assum.         |
| 301. My walking stick is orooked.                                                    | Iãst manoi shkari biss.                                         |
| 302. This year there is much rain;<br>my crop is spoiled.                            | digar b <b>a</b> .                                              |
| 303. On <i>crossing</i> the pass the wind was very bad.                              | Bado <b>gh</b> ai tä dumi bilugk digar ba.                      |

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| 304. In this valley there are many orows.                             | Inā gula tā koŗŗ le asht.                                                        |
|-----------------------------------------------------------------------|----------------------------------------------------------------------------------|
| 305. Your cock orows much.                                            | Tū nai kakkak bilu <u>gh</u> kasitt.                                             |
| 306. The Commissariat bābū is a very oruel man.                       | Commissariat bābū bilugh kart ess.                                               |
| 307. My pony's <i>orupper</i> is broken,<br>so he can't go down hill. | Iā ushp tā prampor bradzi peţan-<br>gess; iā dugā ushp buru palangen<br>na batt. |
| 308. A big stone came down and orushed my leg.                        | Ål vött atsiti iäst kür periss.                                                  |
| 309. Why does that small boy ory<br>out?                              | Ikyā parmen marir kaido zbutt?                                                   |
| 310. Spring is the good time to oultivate.                            |                                                                                  |
| 311. The Kāfirs' cultivation is cele-<br>brated.                      | - •                                                                              |
| 312. That man is very cunning (fox class).                            | -                                                                                |
| 313. Get me a metal <i>cup</i> to drink water.                        | Pashku giats: do pinam.                                                          |
| 314. I am ill: therefore call a doctor to cure me.                    | Bradzo assum: iā dugā wokshhal<br>giats, alshkshi kom.                           |
| 315. My oustom is not to smoke<br>tobacco; I take snuff.              | Tamkio kusth iã chur n'ess ; nasor<br>kolum.                                     |
| 316. <i>Cut</i> a stick for me with a knife,                          | · _ ·                                                                            |
| 317. The soldier out my leg off.                                      | Spāhi iāsi kūr pētess.                                                           |
| 318. The Chārwēlo gave me an order to out your hand off.              | Chārwēli hukm ptās'm tū dui pēțegā.                                              |
| C                                                                     |                                                                                  |
| 319. My father killed the Chārwēlo<br>with a <i>dagger</i> .          | Iã tott Charweli kato viti jion (?)<br>(jāria).                                  |
| 320. Daily bring me a little milk.                                    | Sang gujr iā dugā achok zū giats. •                                              |
| 321. This ground is damp and not                                      | Ina bhim shil ess; jilama wotasth                                                |
| fit for pitching (causing to stand up) tents.                         | digar ess.<br>•                                                                  |
| 322. The men of this village dance badly.                             | Inā bragom manchi nōt digara<br>kuttett,                                         |
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| 323. My father dances well.                                                          | <i>Tōtt</i> nōt <i>lesta</i> kutt.                          |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------|
| 324. That precipice is dangerous,<br>don't go near.                                  | Inā thurus digar ess, tavaras n'ai.                         |
| 325. Owing to an eclipse of the sun, it is <i>dark</i> .                             | Sū garo yaristhē dugã andhar biss.                          |
| 326. My daughter's age is 13.                                                        | Iã jū terits biss.                                          |
| 327. To-day I go to Chitral; every                                                   | Starak gujr <u>Sh</u> drāl aīetum ; eo gujrē                |
| day I shall do a march.                                                              | ē vos pott kalom.                                           |
| 328. The sun melts the snow by day.                                                  | Gujr zīmo sū tiplit.                                        |
| 329. To-morrow at <i>daylight</i> let me go.                                         | <i>Dalkië</i> ru <b>zh</b> bibå <i>ēlom</i> .               |
| 330. My donkey is dead, my horse<br>is dead; I can't lift the load.                  | läst kur mrissä, ushp di mrä; bör-<br>ngä n'balam.          |
| 331. My uncle last year was very                                                     | läst jisthå pos bilugh bradzo was:                          |
| ill: now he is become deaf.                                                          | starak asanga biss.                                         |
| 332. The ford is <i>deep</i> ; we can't cross.                                       | Åtr guru ess : patren na bamish.                            |
| 333. The chārbu (Chitrāli head<br>man of village) is a very<br>deep (fox class) man. | Uru bilu <u>gk</u> vriki pirstha manch <sup>‡</sup><br>ess. |
| 334. The Bada <u>khgh</u> āni army de-<br>feated the Chitrāl army.                   | Tajī sarīen Bilian sarī peiā.                               |
| 335. Our army, being defeated, fled.                                                 | Emdst sarī gatrā bitī mikiā.                                |
| 336. That <i>defile</i> is good for fighting the enemy in.                           | Ikiā artīni gol pachan warī shush<br>kusthā less.           |
| 337. Go quickly : don't make delay.                                                  | Achūnam iē : drē n'kshī.                                    |
| 338. The village is far : don't delay here.                                          | Grām badūr ess : pott drē n'kshī.                           |
| \$39. The coolies <i>demur</i> and say we can't carry loads.                         | Barwai larettett : warī walettett bör<br>n' awēmā.          |
| 340. The road is steep: we should descend from the horses.                           | Pott tchkur ess; ushp tã wāwo<br>etsatī emâ.                |
| .341. Your horse is falling : you had better descend.                                | Tost ushp piltali; wā osth lesta<br>balā.                   |
| . 342. Let go! this business is not                                                  | Kudūm nai kehī! tū kas miok (?)                             |
| • desirable for you.                                                                 |                                                             |
| 343. The men of that village are destilute.                                          | Ikiā bagrām manchi bilugh dru <b>sh</b> ti-<br>wā asht.     |
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| 344. Our enemy is very <i>determined</i> ,<br>and will not fly. Look !<br>they have fled. | Emá pachanwari bilu <u>gh</u> damtol<br>manchi a <u>s</u> ht, n'mukettett! Aish<br>k <u>sh</u> i!mikiä. |
|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| 345. That fellow is a regular devil.                                                      | Ikiā manchī bilugh yūsh ess.                                                                            |
| 346. Have you ever seen the devil?                                                        | Tū kui yūsh warainsā?                                                                                   |
| 347. I have not seen the <i>devil</i> ; even<br>my father has not seen him.               | Iã yüsh n'warainsā; tott dī n'wa-<br>rains.                                                             |
| 348. In my country there is no <i>dew</i> in the summer.                                  | Emå gol tã wizdor mềh n'butt.                                                                           |
| 349. I have had diarrhaa three days.                                                      | $Troi \ words \ butt \ i \widetilde{a} \ bazira padrē \ ar{u}$ prētt.                                   |
| 350. If you have had <i>diarrhæa</i><br>many days, you will surely<br>die.                |                                                                                                         |
| S51. The Chārwēlo has died: all<br>the men are very glad;<br>my brother also died to-day. | Chārwēli mriss : sang manchi<br>shâtinistā (?); shtarak gujr iāsi<br>brâ di mrā.                        |
| 352. Yesterday my horse fell on the road and <i>died</i> .                                | Dus iễ ushp p'putt piltiā mariā.                                                                        |
| <b>353.</b> There is a <i>difference</i> (quarrel) between those two men.                 | Amni dü manchi kilwarian asht.                                                                          |
| 354. Yesterday there was a <i>differ</i> -<br>ence between me and my<br>brother.          | Dus iā brā iā kilā bissī.                                                                               |
| 355. Don't take that road; it is difficult.                                               | Askā potta tā n'iyē ; digar ess.                                                                        |
| 856. I ate a lot of rice early this<br>morning and it is not being<br>digested.           |                                                                                                         |
| 857. That boy's clothes are very dirty.                                                   | Askā marir basná bilu <u>gh</u> mul bistai.                                                             |
| 358. All the men of that village are discontented.                                        | <i>Ikiā</i> bayrām manch <b>š</b> sang ku <u>sh</u> ān<br>n'ais <u>sh</u> t.                            |
| <b>359.</b> I dislike that man.                                                           | Ikiā manchi iā dugā digar ess.                                                                          |
| 360. At the time of my dismount-                                                          |                                                                                                         |
| ing from my horse, I                                                                      | luniosam.                                                                                               |
| slipped and fell.                                                                         | •                                                                                                       |
| 361. My brother's disposition is very good.                                               | Iā brâ ál bidi-wā assa.                                                                                 |

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| 362. Why are these two men disputing?                                                                               | Amni dū manchi kā kilā kuttett ?                                                    |
|---------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 363. In this district are many cows.                                                                                | Inā b'gol bilugh ado asht.                                                          |
| 364. Take this flour ; divide it among yourselves.                                                                  |                                                                                     |
| <ul> <li>365. In our valley there is a diviner.</li> <li>He is a very old man. He is a true speaker. (¶)</li> </ul> |                                                                                     |
| 366. Don't do this business: it is<br>undesirable (not the cus-<br>tom).                                            | <b>a</b>                                                                            |
| 367. I fear I am dying : call a doctor.                                                                             | Ō widerthum mrethum : wok <u>sh</u> al<br>giats.                                    |
| 368. The <i>dogs</i> of that village are very fierce.                                                               |                                                                                     |
| 369. Is your's a male or a female dog?                                                                              | Tõst nah krűi ya shtari (ishtri)<br>krűi ess?                                       |
| 370. You have put too large a load on that donkey.                                                                  |                                                                                     |
| 371. The thief broke one plank of my door last night.                                                               | Dus radar iãst dū bitil <u>sh</u> tãr<br>pēțiss.                                    |
| 372. That man is a thief: I bave<br>no doubt of it (i.e. besides<br>him no one else is the thief).                  | <i>lkiā manchi <u>sh</u>tãr ese :</i> wārā <u>sh</u> tār<br>n'a <u>sh</u> t.        |
| 373. I have a <i>doubt</i> whether or not he is a thief.                                                            | Shtär ess adugosä, tinch n'ess.                                                     |
| 374. The coolies have gone down (stream).                                                                           | Barwai vinrēnī ettett.                                                              |
| 375. Take down the load from the horse's back.                                                                      | Ushpë pa pti bör waok <u>ah</u> d.                                                  |
| 376. Get four coolies to drag the beam.                                                                             | <u>Sh</u> towa manch <b>iān</b> walō argru wa-<br>k <u>eh</u> ol.                   |
| 377. My horse is very thirsty; he <i>drinks</i> much.                                                               | Iễst u <u>sh</u> p bilu <u>gh</u> đo <b>• pig biss ;</b><br>bilug <u>h</u> do pitt. |
| 378. Don't <i>drink</i> much water;<br>(otherwise) you won't be<br>able to travel.                                  | Bilu <b>gh</b> do na pí : n'pā bilo <u>sh</u> .                                     |

• Same idiom as in Chitrali.



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|-------------|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| 379.        | An ass has come to my field ;<br>drive him out.                                                        | E kur iãst ptul p'mich adsā; io<br>tarâzho.                              |
| 380.        | No snow fell in the winter, so there is a <i>drought</i> .                                             | Ziwör zīm n'ptā; iklā dugã dums<br>sē bā.                                |
| 381.        | My cow fell in the river, and<br>is being <i>drowned</i> .                                             | Iãst gáo po-ē luni, piz biā.                                             |
| <b>382.</b> | The Mehtar comes ! Beat a drum.                                                                        | Mehar aiyo! dōtt wãr.                                                    |
| 383.        | My brother is a <i>drunkard</i> for three years.                                                       | Troi sē biss iāst brâ tin pin.                                           |
| 384.        | You have brought green wood ;<br>fetch dry wood.                                                       | Tū <u>zh</u> ilā dār awē <u>sh</u> tai; drī dār<br>gaiets.               |
| 385.        | I myself have seen that the <i>ducks</i> have alighted on the river.                                   | <i>lā wariā panilē</i> jallai ni <u>sh</u> īnistai.                      |
| 386.        | In front of the Mehtar's house<br>is a lot of <i>dung</i> on the road :<br>brush it away with a broom. | Mehar p'amu tã nirgo putt tã ttsit<br>bilugh ess : skā mē <u>sh</u> skā. |
| 387.        | There is much <i>dust</i> on account of the wind.                                                      | Dumi shtett : pariss bilugh butt.                                        |
| 388         | A dwarf has come to ask food.                                                                          | Õr manchi aiyo ; buri aïsh kutt.                                         |
|             | Where do you dwell? Why<br>have you come here?                                                         | Tū kõr gol tã sâch? Anī kai<br>ogh?                                      |
| <b>390.</b> | Last year I dwelt in Kām-<br>dē <u>sh</u> ; this year I shall<br>dwell in Rambūr.                      | Po Kāmdēsh assium ; inā sē Kunisht<br>alossam.                           |
| 391.        |                                                                                                        | $\hat{	ilde{O}}$ ts garīb assum ; iā amn achok ai.                       |
| 392.        | That man has dyed his beard.                                                                           | Stā manchi dāri zar korishtai.                                           |
|             | I have had <i>dyspepsia</i> for two years.                                                             | Dū sē biss borī na bajit jarand.                                         |
| 394.        | I have eaten too much orial's<br>flesh and have much<br>dysentery.                                     | Arorwē ano bilu <u>gh</u> iāro bilu <u>gh</u> shur<br>lāsett.            |
|             | F                                                                                                      |                                                                          |
| 395         | Give each coolie one rupee.                                                                            | Parē barwai iârī tang prē.                                               |
|             | An eagle came down from the                                                                            |                                                                          |
| U 7U.       | sky, and caught my fowl<br>and took it off.                                                            | wanamdi brā.                                                             |

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#### ENGLISH-BASHGALI SENTENCES.

- 397. Owing to cold, my ear pains.
- 398. To-morrow we will go very early.
- 399. This year snow fell early, so it is little.
- 400. There is a hollow here: fill it up with earth.
- 401. Last night there was an earthquake: I was much frightened.
- 402. To-morrow do we go east, (sun-rise way), or west (sun-go-down way)?
- 403. Yesterday we went east ; tomorrow we will go west.
- 404. Yesterday's road was difficult; to-day's is easy.
- 405. Before marching, to eat much is not good.
- 406. It is five years since we have had an eclipse of the sun (since a shadow has eaten the sun).
- 407. Don't go near the edge of the built up pari; you will fall.
- 408. You don't make an effort ! How can you learn ?
- 409. The Charwelo is angry be-Kāfirs won't the CB1180 produce eggs.
- 410. This man is a great thief; eject him out of the house.
- 411. That man is my elder brother.
- 412. That cauldron is empty: the water leaks out.
  - 413. Empty out the water of this ewer.
  - 414. Very well, Sir ! I have emptied Sahib ! le ! de uchar kra. the water out.

Shille tã kõr bradzott. Dalkië emâ kuiyê emâ.

- Inā sē sīm kuiyā ptā, iā dugā sīm chak ptā.
- Anio dudiem ess; palol utushti parakshi.
- Rador indrish pta : õ bilugh widaram.
- Dalkië su chunzli por ētimishā, nai sū puēli por ētimishā ?
- Dus sū chunzli por gāmish; dalkie sū puēli por ēmá.
- Dus pott digar essi ; starak gujr pott less.
- Pilingstett ta shaiye bilugh iasth less ness.
- Poj se ba su garo n'yāriss.
- Ushti pachur pazhē n'ai; piltilosh.
- Tū bibidī n'kshonji! Tū kākti zaronlosh?
- Katā ashao n'prend Chārwēli kapā biti.
- Iyi manchi bilu<u>ah</u> shtar ess ; iye p'amu stē nuksāo.
- Stā manchi iāst jisht brå oss.
- Ikiā tol kar biss ; do be afriā.

Inā pashku tā ao uchar kshi.

| 415. When you have ended your work, come to me.                                           | Koi hudum püshaba iä tä aets.                                          |
|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------|
| 416. Our men are few; the enemy's men are many.                                           | Emâ manchi achok aesth; pachan-<br>wari lê aesth.                      |
| 417. Certainly, our men are few; but<br>they are more <i>energetic</i> than<br>our enemy. | <u>Sh</u> tal, emá manchi achok aesth ;<br>pachanwari tã damtõl aesth. |
| 418. The English soldiers are very good men.                                              | Prang spähi bilugh lē manchi asht.                                     |
| 419. I have eaten enough : it is not good to eat more.                                    | Bēs iārā : lē iāsth less ness.                                         |
| 420. Why hast thou entered my<br>house? I gave thee no<br>leave.                          | Tũ kã dugã p'amu attá gā-s-a <u>sh</u> ?<br>iã hukm n'ptā.             |
| 421. Your entire clan is bad.                                                             | Tā tōtt brâ sang digar asth.                                           |
| 422. Get me a beam equal to this.                                                         | Iã dugã ikiā argrū pristha argrū<br>giats.                             |
| 423. The enemy shut me in a house,<br>but I escaped.                                      | Pachan warī p'anu attā attotiss :<br>bātī mikiosam.                    |
| 424. I am bound, but I hope to escape<br>in the evening.                                  | Attotinissam, bibidi bibit salkawar<br>mikalom.                        |
| 425. <i>Every</i> man of this village is a thief.                                         | Inā bagrām sang manch <b>i</b> shtär ai.                               |
| 426. The Chārwēlo is a very evil man.                                                     | Ohārwēli bilu <u>gh</u> dagar manchi ess.                              |
| 427. In this village there is not even<br>one ever.                                       | Inā bagrom p'mich eo di pa <u>sh</u> ku<br>n'ai.                       |
| 428. In our village my brother is<br>a thief, and <i>except</i> him no<br>one.            |                                                                        |
| 429. This cloak is not good; ex-<br>change it.                                            | Inā shugā less n'ess ; nmelā kshī.                                     |
| 430. Thou liest! There is no excuse<br>for thee.                                          | Tū larēchī! tū kai nelus n'ess.                                        |
| 431. Stay thou here ! Expect me !                                                         | Tū anī otī ! iā aish kshi.                                             |
| 432. The right eye of my brother aches.                                                   |                                                                        |

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#### ENGLISH-BASHGALI SENTENCES.

- 433. My brother's eye-brow got burnt by the lamp.
- Iā brao tremchuk ache-patta lushingostai. Ache-ktelik waro : ache oksh.
- 434. Lift up your eye-lid; show your eye.

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- mark, so big.
- 436. If our luck is bad, we shall fail to climb the hill.
- 437. The Chitrālis say that on Tirich Mir there are many fairies and nothing else.
- 438. The Mehtar's falconer fell in the water and died.
- 439. Take care ! If you fall into the water, you will die.
- 440. That wall will fall, don't approach it.
- 441. Much rain has fallen this vear.
- 442. Last year much snow has fallen.
- 443. This year there is a quantity of snow; to-day snow has not fallen.
- 444. My dog has fallen into the water.
- 445. In my country is a famine.
- 446. My brother is more famous than that man.
- 447. From Chitral, both Shoghöt and Gairath are equally far.
- 448. Sit near me; don't sit far off.
- 449. Chitral is near, Drösh is far.
- 450. In our village there is no farrier (horse shoe-fastener).
- 451. Your horse is very fast; mine is slow.

- 435. On that man's face is a black Sta manchia muka ta ashisto shi nishān ess.
  - Shtalë i nasib n'azilabâ, ashtre tã ūwē n'balem.
  - Bilian manchi walettett Missarmin wutr (vetr) biluah asht wārā n'aicsht.
  - Mehr marapsawai poi-ē lunētī mrā.
  - Trãchi bo! Tū poi ētish tā mrlosh.

Iyē chá witlalā, torð n'ai.

Starak p'sē bilugh agol ptā.

- Po biluah zim zimitā.
- Starak sa bilu<u>ah</u> zim ess ; starak gujar zīm n'ptā.

Iā krūi poi gwā.

- Iā gul tā bilugh att ess.
- Iã bra stā manchi tā bilugh damtol le manchi ess.
- Shdrāl stē Shogoi Gairath tich badur asth.
- la taware nishe ; badur n'nishi.
- Shdrāl taware, Dryus badur ess.
- Emá bagrom ushup wetså amchol n'aiasth.
- iñ Tū ushp bilugh shatrami ess ushp n'pā balas.

| <b>4</b> 52. | It is three years since I turned<br>Musalmän; I keep the fast. | Trē sa bā ö muzalmān bissam;<br>pochētr ngānam.                  |
|--------------|----------------------------------------------------------------|------------------------------------------------------------------|
| 453          | The time is near for breaking                                  | •                                                                |
| 200.         | the fast.                                                      | -                                                                |
| <b>4</b> 54. | My horse has become fat, and                                   | Iā u <u>sh</u> p kartab ess : pā n'batt.                         |
|              | can't go.                                                      |                                                                  |
| 455.         | My fate is bad; your fate is                                   | <i>lãst</i> miuk <i>digar ess</i> ; <i>t</i> ō miuk <i>lesst</i> |
|              | good.                                                          | e88.                                                             |
| <b>45</b> 6. | My father and mother are                                       | läst tott nün mrā: öts parki (kur)                               |
|              | dead: I am left alone.                                         | edsam.                                                           |
| 457.         | You are fatigued: I will give                                  | Tū gatrabā assi <u>sh</u> : achu kulom.                          |
|              | you a back.                                                    |                                                                  |
| <b>4</b> 58. | Don't flee to Bada <u>khsh</u> ān,                             | Badakshā mõ na mugō, kā widegh                                   |
|              | there is no <i>fear</i> .                                      | <b>na ess.</b>                                                   |
| <b>4</b> 59. | I fear my enemy will kill me.                                  | Ōts widarnam pachan warī ī jārlā.                                |
| <b>460.</b>  | Why have they run away?                                        | Kaiko maikiyā sar? <u>Sh</u> tãr dugễ                            |
|              | They have run away from                                        | vidraitī <i>mukiā</i>                                            |
|              | fear of thieves.                                               |                                                                  |
| 461.         | My brother feigned dead, and                                   | Iãst brá mralogom (?) viz-                                       |
|              | escaped by night.                                              | hom (?) radur mikios.                                            |
| 462.         | My father <i>fell</i> on the road.                             | Iãsi tott pott piltiā.                                           |
| <b>463.</b>  | Thy father <i>fell</i> into the river.                         | Tū tōtt baglo (b'gol-o ?) piltiā.                                |
| <b>464</b> . | The female is usually cleverer                                 | Jugur manchi todi bilugh kshul ess.                              |
|              | than the male.                                                 |                                                                  |
| 465.         | Fetch four men to make a                                       | Sūi postho shtowa manchiān gaiets.                               |
|              | bridge.                                                        |                                                                  |
|              | I have fetched four men.                                       | Iã <u>sh</u> towa manch <b>i awā</b> ŗā.                         |
| 467.         | This year many men have died                                   | Starak sa randsõl biti bilugh                                    |
|              | of fever.                                                      | manchi mṛā.                                                      |
| 468.         | My father is very ill; he has                                  | läsi tott bilugh bradzo ess; unsatt.                             |
|              | fever.                                                         | ~                                                                |
| <b>4</b> 69. | Fever has had hold of me for                                   | Shto wos bā ondsil i andsitī; jidd                               |
|              | four days; my body aches.                                      | bradsonn.                                                        |
| 470.         | Last year very few men died                                    | Põ achok manchi randsol biti mysi.                               |
|              | of fever.                                                      |                                                                  |
| 471.         | The Ashrath valley men are                                     | -                                                                |
|              | useless for fighting.                                          | dugë digar ai.                                                   |
| 472.         | This year figs, apples, and                                    | Inā sē tā kiwitt, parr, tsiren chinai.                           |
|              | peaches are sour.                                              |                                                                  |

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| 473. That man's <i>figure</i> and my brother's <i>figure</i> are the          |                                                                                       |
|-------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| same.                                                                         |                                                                                       |
| 474. Take this ewer, fill it with water.                                      | Inā pashku nāti (ngāti?) do para<br>k <u>sh</u> i.                                    |
| 475. Your house is filthy; of course you will get ill.                        | Tū amu mol ess; shtalė̃ tū bradzo-<br>wo bolass.                                      |
| 476. I found (find) these clothes on the road.                                | Am bazisná potto wariam.                                                              |
| 477. Thou art a very fine man.                                                | Tū bilu <u>gh</u> lē manchī ess.                                                      |
| 478. I have nine <i>fingers</i> ; you have ten.                               | Î non angur ai; tū tā duts angur<br>ai.                                               |
| 479. When you have <i>finished</i> work,<br>I will give you food.             | Tū koi kudūm poi <u>sh</u> abā, anjī<br>prēlom.                                       |
| 480. Cut down two <i>fir</i> trees for mak-<br>ing the bridge.                | Sū testh dugẽ dū rugana petti<br>giats.                                               |
| 481. The fire is too much, subdue it.                                         | Angā bilu <u>gk</u> ess, wālt <b>i</b> k <u>sh</u> i.                                 |
| 482. Make a <i>fire</i> -place in my house.                                   | Iā p'amu angā-kutān k <u>sh</u> ī.                                                    |
| 483. There is no fire.                                                        | Angā ness.                                                                            |
| 484. For the purpose of making a <i>fire</i> , fetch wood.                    | Angā kor dār apsio.                                                                   |
| 485. There is no <i>firewood</i> here;<br>how can I make a fire?              | Anī watesth dār n'ai; kāktī angā<br>kom (kulom)?                                      |
| 486. My soldiers are very firm and will not flee.                             | Iã spāhi bilu <u>gh</u> zorawā ai, n'mukelā.                                          |
| 487. This man came <i>first</i> ; that<br>man was second; Mirak<br>was third. | Inā manchī pani <u>sh</u> ār oss; stā manchi<br>ptiwar oss; Mirak troi wostha<br>oss. |
| 488. Our people consider fish unlaw-<br>ful (as a dead thing) to eat.         | Emå manchi âo matsa yosth dugë<br>muldär ess kuttett.                                 |
| 489. This business is not fit for a Mehtar.                                   | Inā kudūm mehrē less ness.                                                            |
| 490. The enemy's men carry a very big white flag.                             | Pachan wari manchi bilugh al<br>kashir tuppdun wanamess.                              |
| 491. The <i>flumes</i> of that fire have got<br>up very high.                 |                                                                                       |
| 492. This country is <i>flat</i> like a hand.                                 | Inā watan da <u>sh</u> par purstha diwar<br>ess.                                      |

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| <ul> <li>493. In thy house are many <i>fleas</i>,<br/>but in winter they don't bite.</li> <li>494. I am afraid of the Diwänbegi,</li> </ul> | To p'amu pakkī bila <u>gā</u> a <u>s</u> t : sivor<br>n'yūttett.<br>Diwānbegi widarnam, giakti muko- |
|---------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| for that reason I am <i>feeing</i> .                                                                                                        | nam,                                                                                                 |
| 495. If I <i>flee</i> on the road, the Meh-<br>tar's sepoy will catch me.                                                                   | lã p'pott mukinjebå mehr epāhi<br>wanamelā.                                                          |
| 496. The enemy has fled.                                                                                                                    | Mashu wari mikiā.                                                                                    |
| 497. In Ranbür there are no <i>flies</i> in winter.                                                                                         | Zawör Mämret tawarik n'aiesht.                                                                       |
| 498. That man is <i>floating</i> on the river (having inflated his stomach).                                                                | <i>Ikiā manchi poi</i> š ktol tirkti no <u>sh</u><br>kõr.                                            |
| 499. A flock of my goats has come<br>on the hill.                                                                                           | Ĩ poshtrē dizho dom tittl afziā.                                                                     |
| 500. From the melting of snow, the river is in <i>food</i> .                                                                                | Inā sim wilitī gol âo bilugh afziā.                                                                  |
| 501. Having taken a load of wheat<br>and ground it, bring the<br>flour.                                                                     | E bör gum ngātī pshetī brē giats.                                                                    |
| 502. On the Gangalwatt pass the <i>flowers</i> are pretty.                                                                                  | Gāgra wott bado pagur puṭik shin-<br>gir ai.                                                         |
| 503. Last year my mare gave a foal.                                                                                                         | Pō sē iāst ushpē ishtrī ushp karais.                                                                 |
| 504. This year my mare is not in foal.                                                                                                      | Starak sē iãs u <u>shp</u> <u>sh</u> ali n'ess.                                                      |
| 505. Bring fodder for my horse and cow.                                                                                                     | lãs u <u>sh</u> p iã gáo dugê yūs gats.                                                              |
| 506. You go in front; let him fol-<br>low.                                                                                                  | Tū na <u>sh</u> tarwdi bō; iki ptiwar<br>atsalā.                                                     |
| 507. You stay here and get food ready.                                                                                                      | Tū anšo nishē; isht tyor kshi.                                                                       |
| 508. My brother is a very foolish man.                                                                                                      | Iã brâ bilugh chațța manchi ese.                                                                     |
| 509. Yesterday my foot was frost-<br>bitten on the pass.                                                                                    |                                                                                                      |
| 510. Do you want a foot man, or a horse man?                                                                                                | Tū kūro manchi aish kuchiā, ushp-<br>o-sir manchi aish kuchā?                                        |
| 511. I heard the thief's footfall.                                                                                                          | Shtare kur chut p'kor gawa.                                                                          |
| 512. For sake of my small child get clothes.                                                                                                | lãst pormonstuk parmire (marire)<br>dogõ basná giats.                                                |

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| 513. We won't carry loads for nothing.                                                           | Emá gijjā bör n'ngāmá.                                                                                                    |
|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| 514. Is a gun good or a sword?<br>For me a gun is good.                                          | Tapak less ai tarwach less ai ? Iã<br>dugë tapak less.                                                                    |
| 515. Sir ! the soldiers are damaging<br>our crops. Forbid them.                                  | Sāhib ! Spāhī emā ptul marmarī<br>kuttett. N'kahīr kahl.                                                                  |
| 516. I forbade them, but they don't obey (take counsel).                                         | Ōts amno tã n'kahĩr krā; vari<br>n'wagattett.                                                                             |
| 517. Turn him out of the house<br>with force.                                                    | Askā manchi kartā p'amu stē tar-<br>zhār.                                                                                 |
| 518. Send me a guide to show me<br>the <i>ford</i> , for the water in<br>the river is quite low. | <b>Åotre (tūr) varösth dugë pott särl</b><br>i manchi namo, golog <u>h</u> (golo<br>do) bilu <u>gh</u> chäg <u>b</u> ess. |
| 519. Come! let us ford the river.                                                                | Prēts ! emā p'âotre patrem.                                                                                               |
| 520. This man is not of my valley,<br>he is a foreigner.                                         | Inā manchi emā b'gol manchi<br>n'ess, wārā manchī ess.                                                                    |
| 521. On your <i>forehead</i> there is blood. What has happened?                                  | Tü p'mino loi nissis. Kai biss ?                                                                                          |
| 522. On your horse's forequarters there is mud : make it clean.                                  | Tū u <u>sh</u> p ziritiliā tā shur tapol biss :<br>dirē.                                                                  |
| 523. Between Urgüch and Ranbür<br>there is a very big forest.                                    | Argich Konisht p'mijhu âl zzul<br>assā.                                                                                   |
| 524. I have forgotten the order<br>which the Mehtar gave me.                                     | Askā kudūm Mehr iš tā wiliāsim<br>p'mi <u>sh</u> tiā.                                                                     |
| 525. Thou art a very forgetting man; don't forget.                                               | Tū bilu <b>gā</b> p'mishtal manchī assish ;<br>n'p'mishtal.                                                               |
| 526. If I forget, may God give me<br>punishment.                                                 | Shtalð öts p'mi <u>sh</u> talom Imra bapdi<br>a <u>sh</u> ala.                                                            |
| 527. The Chitrāl new fort is stronger than the old fort.                                         | Shdrāl noi kālo siūmē kālo tā lesst<br>ass.                                                                               |
| 528. How many foster brothers have you?                                                          | Të chok chir <sup>*</sup> brâ hōst ?                                                                                      |
| 529. That child is not my foster child.                                                          |                                                                                                                           |
| 530. I have ten <i>foster</i> sisters.                                                           | Iā duts chir sūs ai.                                                                                                      |
| 531. Two Sahibs are coming; I am<br>sure they will want two<br><i>fowls</i> .                    | Dū sāhib pott tā atsand; õ purja-<br>nam dū kakkak ragand.                                                                |

• Chitrālī idiom.

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ENGLISH-BASHGALI SENTENCES.

| 532. Last night a fox came and took off all my fowls.                                        | Dus p'tramjuk wrigi atti sang<br>kakkak brā.                                                       |
|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| 533. To-day it is not cold : water<br>will not <i>freeze</i> .                               | Starak shil n'ess : áo shē n'tilā.                                                                 |
| 584. The water of the river is frozen.                                                       | Inā gol t $\tilde{a}$ âo shē tin ess.                                                              |
| 535. This fruit is .stale; get fresh fruit.                                                  | Stā ka <u>zh</u> wa <u>jh</u> amı istai; less ka <u>zh</u> -<br>wa <u>jh</u> gyats.                |
| 536. That man is my <i>friend</i> ; he is not a thief.                                       | Askā manchī iāst sulī azzā; <u>sh</u> tan<br>n'ess.                                                |
| 537. To <i>frighten</i> him I said "many<br>thieves have come"; only<br>one, thief has come. | Ikiā manchī widarosth dugē gijjī<br>karsī "bilu <u>gh sh</u> tãr osthā"; ē<br><u>sh</u> tār haiss. |
| 538. All the <i>frogs</i> are dead from cold, not one is left this year.                     | Shillð tā maruk sang mristai, ina<br>se eo di n'asht.                                              |
| 539. I am blind, I can't see; go<br>thou in front.                                           | Õts kär assum, n'wrantum: tü<br>na <u>sh</u> tar waibö.                                            |
| 540. The <i>frontier</i> between Chitral<br>and Bada <u>kh</u> shān is very<br>cold.         |                                                                                                    |
| 541. There is no hoar frost this year,<br>nor black frost.                                   | Inā sē mềh n'ess, <u>sh</u> ē di n'ess.                                                            |
| 542. There is a cold wind on the pass; don't go ! your ear will be frost bitten.             | Bado yuts dumī ess; tū n'ai ! tū<br>kōr lu <u>sh</u> tilā.                                         |
| 543. What are you sulky about,<br>that you make <i>frowns</i> ?                              | Tū kai kapā bissish, mičk andr<br>kriss?                                                           |
| 544. Is that ewer full of water or milk?                                                     | Inā pashku tā do parē karsā zū<br>parē karsā ?                                                     |
| 545. All the men of my village are<br>assembled for the <i>funeral</i> of<br>my father.      | Iã totti kand dugë iã bagrām<br>manchī sang wasanristai.                                           |
|                                                                                              | •                                                                                                  |

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546. All the boys of my village are Emå bagrām sang marir mishi playing (making a game). kuttett.

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# ENGLISH-BASHGALI SENTENCES.

| 547. Two donkeys have come into<br>my garden and done much<br>harm.                           | Î b'darestân dũ kur atti bilugh<br>najiss.                           |
|-----------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| 548. The hill is very steep; the horse is gasping.                                            | Inā do bilu <u>gh</u> ukrī ess; u <u>sh</u> p<br>shūskett.           |
| 549. My forefathers have lived in<br>this village for four genera-<br>tions.                  | Emâ tõtt wäo inā bagrom <u>sh</u> towa<br>alo biss.                  |
| 550. My grandfather was a very generous man (great heart man).                                | Iã wao bilu <u>gh</u> &l bidi-wā manchi<br>assi.                     |
| 55]. The Aiyān`men can't make<br>ghī (clarified butter).                                      | Angãr manchi ano tyor kōn na<br>battet.                              |
| 552. The Af <u>gh</u> ān soldiers came and<br>took away four <i>girls</i> from<br>my village. | - •                                                                  |
| 553. My horse's girth has got loose;<br>tighten it.                                           | Iã u <u>sh</u> p tã mu <u>sh</u> tē jinjil biss;<br>wi <u>sh</u> tē. |
| 554. If you do well, I will <i>give</i> you five rupees.                                      | Tū lē kudūm karbā pōch tanga<br>prēlom.                              |
| 555. If you <i>give</i> me bread, I shall be happy.                                           | Tū boy prēnjībā õts kujhēl balom.                                    |
| 556. I have given him seven rapees.                                                           | Iã iki sott tang ptā.                                                |
| 557. The <i>glacier</i> is very bad this year, we can't cross it.                             | Starak sē inzarin bilugh digar ess,<br>awī na bam.                   |
| 558. Buy for me (bring me having<br>given money) two looking<br>glasses from the bazar.       | B' bzār stē marī prētī dū tare iā<br>dugē gats.                      |
| 559. Go on ! (horse), my horse is<br>very lazy.                                               | Prēts! u <u>sh</u> p bilu <u>gh</u> beru a <b>ss.</b>                |
| 560. To-morrow I will go to Chitral.                                                          | Dalkië õts <u>Sh</u> drāl elom.                                      |
| 561. To-day you will go to Gairath.                                                           | <u>Sh</u> tarak tū Gairath ēlo <u>sh</u> .                           |
| 562. The day after to-morrow we will go to Shi <u>sh</u> i.                                   | Attri emá Shishi ömish.                                              |
| 563. They will go to Bröz.                                                                    | Amná Broz enda.                                                      |
| 564. Go thou to Chitral.                                                                      | <u>Sh</u> drāl 1.                                                    |
| $\cdot$ 565. Let them $g_0$ to Chitral,                                                       | <u>Sh</u> drāl ellā.                                                 |

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| 566.         | The bābū has come to buy<br>goats, but my son's goats are<br>all dead.                        | Bābū gash marī prētī ngūsth dugā<br>aiyo, iā pitr gash sang mrā.                             |
|--------------|-----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| 567.         | God is kind (great); perhaps<br>my father won't die, I<br>think.                              | Imrā ál css; <u>s</u> htal <b>š ið t</b> ött n'm <b>rla</b><br>wa <u>sh</u> itam.            |
| 568.         | The War god is very good to<br>the Kāfirs. (¶)                                                | Kato manchi dugë Gish bilugh lë<br>asht.                                                     |
| 569.         | How long have you had goitre<br>(been goitred)?                                               | Tü chi sö biss gur biti ?                                                                    |
| 570.         | In my country is much iron,<br>but not gold.                                                  | Emá gul tã chemu lê asht, sôn<br>n'ai.                                                       |
| 571.         | That farrier is a very good man.                                                              | Ikiā ushp watsa amchol manchi<br>bilugh damtol manchi ess.                                   |
| 572.         | The Chitrali houses are good.                                                                 | Bilian amu lest ai.                                                                          |
|              | In your country why do<br>women carry the household<br>goods, and men march empty<br>handed ? | Shå gul tã kai dugê jug <del>ur trasu</del><br>lattri ngand, moch kai dugê<br>tsuið ettett ? |
| 574.         | This gorge (tight valley) is a<br>good place to stop the<br>enemy.                            | Pachanouri band kusth dugë ikiā<br>aruni gol lest ess.                                       |
| 575.         | I dislike the governor of this country.                                                       | Inā watan tā nan <b>wņ</b> i <b>iā du</b> gē digar<br>ess.                                   |
| 576.         | In my country it is not usual<br>to graft apples on pears.                                    | Iã gul tã parr je tong gitu kosth<br>chur n'ess.                                             |
| 577.         | Do peaches come from seed or<br>from grafting ?                                               | Aru atti mesh botasalā gitu karba<br>botasalā ?                                              |
| 578.         | Get one rupee's worth of grain<br>for our horses.                                             | Eo tangë pul ushpë dugã gats.                                                                |
| 579.         | My grandfather and grand-<br>mother are both dead.                                            | Wão wãi sang mrã.                                                                            |
| <b>58</b> 0. | The grapes of my garden are very big.                                                         | lã bdristān dros áli pul ess.                                                                |
| 581.         | Bring green grass for my horse ;<br>he won't eat hay (dry grass).                             | Iā u <u>shp</u> dugā <u>sh</u> ila yus gats ; da <b>ri</b><br>yus n'yūtt.                    |
| 582.         | I am very grateful for the<br>kindness which you have<br>done me.                             | Tū bilugh mihrbānī karsam; 8ts<br>bilugh shamash kutlam.                                     |

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| 583. That boy goes towards his father's grave.                                                                             | Ikiā marir totts p <u>sh</u> in tấ pretann (1).                                                             |
|----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| 584. The traveller has brought his horse to graze in my garden.                                                            | Wischio amu ushpē iāst dristān<br>marmari kusth dugā arwarā.                                                |
| 585. My donkey is great; your don-<br>key is greater than mine.                                                            | Iã kur Al ess ; tū kur iã kurē tā Al<br>ess.                                                                |
| 586. You are very greedy; don't eat too much food.                                                                         | Tū bilugh <b>al k</b> tol-wā assish; bu <sub>r</sub> i<br>shirēn n'āyū.                                     |
| 587. Spring is come : all the trees have become green.                                                                     | Wosut bā : sang stüm por bā.                                                                                |
| 588. My goats are grey; my bro-<br>ther's goats are all black.                                                             | Iã gash kashir ess; brô-o gash sundi<br>shi asht.                                                           |
| 589. Why grievest thou? Thy<br>horse is ill, but to me hope<br>is he will not die.                                         | Tū kā dug <b>õ sh</b> uchi? tū u <u>shp</u><br>bradsowai, iã barē assabā<br>n'mṛli.                         |
| 590. Sir! all night we have been grinding corn at the mill, and the bābū won't give us a copper.                           | Sāhib! emd parochi pul p'apshi<br>p <u>sh</u> issi, bābū ē paiz n'prēnn.                                    |
| 591. I know nothing about horses;<br>send for the groom.                                                                   | $\widetilde{O}$ ushp kudūm n'eārtam; ushp patso walo.                                                       |
| 592. The horse is dirty with sweat ;<br>groom him with a wisp.                                                             | Ushp bilugh ashpā biss ; kshē mīsh<br>kshē.                                                                 |
| 593. My horse is rolling from side<br>to side on the <i>ground</i> and<br>groaning, perhaps he has a<br>pain in his belly. | Iā u <u>sh</u> p palol tā uchpu palangett,<br><u>sh</u> tārt, õ purjanam u <u>sh</u> pē tā<br>ktol bradzot. |
| 594. This ground is very damp, and<br>not fit for standing up (erect-<br>ing) tents.                                       | Bhim bilugh <u>sh</u> il ess, jilamâ uchas-<br>esth less ness.                                              |
| 595. My boy has grown big.                                                                                                 | Iã pitr al biss.                                                                                            |
| 596. My crop grows well on the ground this year.                                                                           | Starka së iãst shir ptul tâ warand.                                                                         |
| 597. Get a sharp man to guard my property.                                                                                 | lãst aspāp tràchi bō dugã lesst<br>damtōl manchi gaits.                                                     |
| 598. Mir Hamza is my guest; it is<br>unlawful to kill him.                                                                 | Miramza iäst wich ess ; järisth<br>less ness.                                                               |
| 599. My tooth is broken and my                                                                                             | Ia dutt petang ess; dodmõss apsiss.                                                                         |

- 600. The Amir's soldires have come and taken away all the Kāfir guns.
  - tapak sang brā.
- Iã watan tã manchi ani daru tyor 601. My country men make gunpowder here. kuttett.
- away all my clothes.
- 602. A gust of wind came and took Dumi allangiti atsiti i sundi basná brā.

Kābul Amīro spāhī āyā Katost

### Н

- 603. I don't smoke tobacco; it is not the habit of my ancestors.
- 604. From the hail of the heavens my crops are damaged.
- 605. The hair of the head of my father has become grey.
- 606. The goat's hair is good for making carpets.
- 607. This is a big apple; I'll give half to you, and half to your son.
- 608. We are all tired ; we will halt here.
- 609. In that hamlet there are ten houses. The enemy is in this hamlet.
- 610. Call a blacksmith; tell him to bring a hammer.
- 611. You are a fool, you don't know the difference between right hand and left.

612. A thief cut off my hand.

- 613. Bring a handful of grain for my horse.
- 614. I have brought two red handkerchiefs from Peshāwur.
- 615. The handle of my axe is broken,

Tamkio n'ksholam; tott wao chor ness.

Badist azhir atti duga iast ptul digr bā.

Totti she zhū kazhīra bistai.

Gash zhū zho kusth duge lessta buttett.

- Inā alī parr ess; chillai tū prom, ē chillai tū pitr prom.
- Emá sang gatrā bosamish; anīo wasemâ.

Ikiā bagrom dotsam amu ai. Inā mashu bagrām ess.

Bari walo; samtonn awēlā.

Tū chațța assish; tū pachur dusht ko dusht n'zhärtish.

Shtar iasi dui peția. läst ushp duga e gor pul gats.

Ots dū zĩr höst susni Peshár stë awarissi.

#### Iā petdrī don peţangess,

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# ENGLISH-BASHGALI SENTENCES.

| <ul> <li>616. Hang my pugri on the branch of that tree.</li> <li>617. If you are happy, I am contented; if you are angry, I am discontented.</li> <li>618. This hill is very hard.</li> </ul> | pachargo pså (?).<br>Tü kuzhān ashibā õ di kuzhān<br>assum; tū kapā oshibā õ di kapā<br>azzum.<br>Inā pashu bilugh dagar ess. |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| 619. I fear thee; thou art a<br>very hard man (of a bad<br>heart).                                                                                                                            | Ō vidarnom; tū digar bidī-o man-<br>chī assish.                                                                               |
| 620. The Manlais don't eat hare's flesh.                                                                                                                                                      | Maulai manchi rakūs ano n'cha <u>sh</u> -<br>and.                                                                             |
| 621. Is your harvest good this year ?<br>622. This year my harvest is not<br>good.                                                                                                            | Starak sõ`tā kati less tuiā ?<br>Starak sē iāsī kati less n'ai.                                                               |
| 623. The harvest is very early this year; last year it was late.                                                                                                                              | Starak sē gompõk kuiyê āyā; pō sē<br>gompõk drē āya.                                                                          |
| 624. My brother has a gun.<br>625. The Baahgalis hate the Afghān<br>priests.                                                                                                                  | Iãsi brâ tapik wâs.<br>Aoghāni mullā katõ kē (?) mi <u>sh</u><br>ess.                                                         |
| 626. I have a sword but not a gun.<br>627. The Chitrālīs have not got a<br>gun.                                                                                                               | Torwaj wâsam ; tapik na wâsam.<br>Bilian tapik na wâi.                                                                        |
| <ul> <li>628. The Kāfirs don't keep hawks.</li> <li>629. It is three months that my cow is eating hay (dry grass), so she has become thin.</li> </ul>                                         | Katā marē na umattett.<br>Trē mōs biss iā gdo darī yūs yutt:<br>daļar biss.                                                   |
| <ul> <li>630. Bul Khān hit me on the head<br/>with a stick; it pains much.</li> <li>631. Gumāra is the head of our<br/>clan.</li> </ul>                                                       | Bulkhān manoi m <sup>ë</sup> sh i <b>ë</b> p <u>sh</u> ai<br>wanā's; bilugh bradzott.<br>Gumāra iā tott brâ tā nanwri ass.    |
| 632. The head man is very ill<br>and seems on the point of<br>dying. (¶)                                                                                                                      | Ja <b>ah</b> t bilugh bradso-wā ess ; tyor<br>mŗlā.                                                                           |
| 633. The horse's <i>headstall</i> is broken;<br>he is going loose in the<br>stable.                                                                                                           | U <u>sh</u> pë yangut pejangā ; u <u>sh</u> p amu<br>uchpo afzėtt.                                                            |
| 634. The manure has got in a big <i>heap</i> here.                                                                                                                                            | Anī bilu <u>gh</u> tsū ulețț biss.                                                                                            |

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| 685. I heard the sound of a gun;                              | Tapkē wanisthā iā p'kor gwā: tū                                      |
|---------------------------------------------------------------|----------------------------------------------------------------------|
| didn't you hear it?                                           | p'kôr n'gwā ?                                                        |
| 636. On the hearth are many ashes:                            | Iā postao assā lē ass : skā mesh                                     |
| sweep them up with a                                          | skā.                                                                 |
| broom.<br>637. Inside this fort is much <i>heat</i> :         | Kalo tã atũr tāb le butt : dumi                                      |
| there is no wind.                                             | 1088.                                                                |
| 638. Take away this ghi and heat                              | Ano ngātī tapētī giats.                                              |
| it, and then bring it back.                                   | And ultres capour grave.                                             |
| 689. The coolies say our loads are                            | Barwai wari kuttett emå bör gåno                                     |
| very heavy; we cannot go.                                     | ai ; emâ ē na bam.                                                   |
| 640. Make a <i>hedge</i> of thorns around my field.           | Iã ptul pachūrē tarin watarawa (?)<br>k <u>sh</u> ĩr.                |
| 641. Yesterday I walked much ;<br>my heel's skin is come off. | Dūs bilugh pilingam ; iãst kurktã<br>cham pețangwā.                  |
| 642. The Kāfirs have never heard                              | Katõ tã p'kor n'gosā dsudsuk assā                                    |
| of a Hell.                                                    | kati.                                                                |
| 643. The Käfirs do not know (the                              | Katā dsudsuk ojē bihishte (badiste)                                  |
| difference between) Heaven*                                   | n'sārtett.                                                           |
| and Hell.                                                     | •                                                                    |
| 644. Give me help ; I am tired ; I                            | lã mõsh puru kshi; gatra bosam;                                      |
| am done up ; I can't lift my                                  | anio wopsanasum ; iã bōr ngā                                         |
| load.                                                         | n'battam.                                                            |
| 645. All my fowls are hens, I have<br>not even one cock.      | Iễ sang i <u>sh</u> tri kakkak aiesth ; ē dī<br>nai kakkak n'aiesth. |
| 646. Get out! Henceforth I won't                              | Prēts! Īē! p'starak stē p'amu                                        |
| see you at my house.                                          | n'wrantam.                                                           |
| 647. Pir Khān's son is the hench-                             | Pir Khān pitrs mehr buri churz                                       |
| man (or food distributor) of                                  | ojē Mir Khān mehr ano kohāl                                          |
| the Mehtar, and Mir Khān                                      | ess.                                                                 |
| is his cook.                                                  |                                                                      |
| 648. Last year a hord of ibex was                             | Pō sē marish ē dom inā bado p'khur                                   |
| herding on this hill top.                                     | dom tiness.                                                          |
| 649. Come here. I'll whisper some-                            | Aniats. Tūwari p'kor a <u>jh</u> olam.                               |
| thing (some word) to you.                                     | •                                                                    |
| Tt annears there are no words even                            | nt the evidently Persian words for beenen                            |

• It appears there are no words, except the evidently Persian words, for heaven and hell.

In "Account of the Kingdom of Caubul" (Elphinstone) the words "Burryle bools" and "Burry duggar bools" are given for heaven and hell. Ls bola means "is good," and digar bola "is bad." In the Bashgali there is a word bars which means "fate, hope, luck."

| 650. Flee by night ; hide in the day time.                                                                        | Radhar mugō ; gajr chu <u>sh</u> t eshtin-<br>ājē.                                             |
|-------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| 651. Let us <i>hide</i> here; the enemy<br>shall not see us.                                                      | Anī attā bamá; pachan warī<br>n'vrēlā.                                                         |
| 652. <i>Hide</i> me in such a place that the Chārwēlo shall not see me.                                           | Ĩ attki attö k <u>ah</u> i Ohärwöli n'vrölä.                                                   |
| 658. This hill is <i>high</i> , but not very steep.                                                               | In do dargrin assio, urbri n'assio.                                                            |
| 654. In the <i>highlands</i> it is always cold; down low it is hot.                                               | Sarētā parē wor shallā bonā ; badūrē<br>tabī buttā,                                            |
| 655. This <i>hill</i> is not very stiff;<br>that mountain is very<br>steep.                                       | Inā a <u>ah</u> tr ál n'ess; ikiā dō bilu <u>gh</u><br>urkri ess.                              |
| 656. I can carry your load down-<br>hill, but cannot take it up-<br>hill.                                         | Ots tā bör brūlē ngā balam, at <b>ērē</b><br>ngā n'balam.                                      |
| 657. We have marched much, but,<br>up to now, the top of the<br>hill does not come in sight<br>(or we can't see). | Bilugh piliangsami <u>sh</u> , pstarak wik<br>dō <u>sh</u> ai n'waroins (wār n'bam <b>d</b> ). |
| 658. Hill-men are very powerful.<br>Men of the plains are very<br>small hearted.                                  | • • –                                                                                          |
| 659. On the other side of that white <i>hillock</i> is my house.                                                  | Igð ka <u>zh</u> iri pit tibar ið amu ess.                                                     |
| 660. The <i>hilt</i> of your sword is<br>so small I cannot clutch it.                                             | Tū trowōch mi <u>sh</u> t parmenstuk,<br>damen n'battam.                                       |
| 661. The horse of him is lame. My<br>horse is lame and to-morrow<br>I shall hire.                                 |                                                                                                |
| 662. On the <i>hind-quarters</i> of my<br>black horse are two white<br>spots.                                     |                                                                                                |
| 663. My horse is lame: to-morrow<br>I shall <i>hire</i> another animal.                                           |                                                                                                |
| 664. <i>Hitherto</i> I have had no ill-<br>ness.                                                                  | – Iã starak wik kai bradso na biss.                                                            |
| •                                                                                                                 | н 2                                                                                            |
|                                                                                                                   | Digitized by Google                                                                            |

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| 665.         | My horse doesn't stand still; I<br>can't dismount. Hold him.                 | Iā ushp oti na batt ; õts wäwats<br>n'battam. Wanamā.                            |
|--------------|------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| 666.         | Take care ! There is a hole<br>in front of you : come<br>back.               | Taraĩchi bō! tũ p'ni <u>sh</u> r kadr ess:<br>ptior ats.                         |
| 667.         | The enemy are hidden in the<br>hollow: I have seen them<br>with my own eyes. | Pachamvarī bugdrē p'mi <u>sh</u> attā<br>bistai : yost ach <b>ē vrē wa</b> riām. |
| 668.         | In that forest are holly trees<br>and no other.                              | Askā pashui tā wanzi kāno asth,<br>wāre kāno n'aiesth.                           |
| 669.         | The Afghans have eaten all my honey.                                         | Aoghāni manchi emā sundi mārchī<br>iār.                                          |
| 670.         | Thou art a thief ! Thou hast<br>no honour.                                   | Tū shtãr assish ; tū kai jirik n'ess.                                            |
| 671.         | From pulling at a hookah too<br>much, my head aches.                         | Chillam bilugh kshaiesth dugã, iã<br>tã shai bradzott.                           |
| 672.         | I hope my father will arrive<br>here at sundown.                             | Iã bapdi ess tõtt sü pinjebā allonn.                                             |
| 673 <i>.</i> | Yesterday I shot with a gun<br>an ibex which had only one<br>horn.           | Dus tapkê witî miri <u>sh</u> jãronn (?) :<br>ê <u>sh</u> î wâssiā.              |
| 674.         | There are so many hornets in<br>my house, I can't enter it.                  | Iā p'amu a <u>zh</u> ik b <b>a</b> mo a <u>sh</u> t, atto<br>en n'battam.        |
| 675.         | Thy horse is a male.                                                         | Tost ushp nah ushp ess.                                                          |
|              | My father's horse is a female.                                               | I totto ushp shtari ushp ess.                                                    |
|              | The Mehtar gave me a horse and a mare.                                       | Mehr ē neo ushp ē ishtri ushp<br>ptāšm.                                          |
| 678.         | Why have you given me a bad horse?                                           | Tū iã digrī u <u>sh</u> p kā ptās'm\?                                            |
| 679.         | Don't give me a stumbling horse.                                             | Iã piltali u <u>sh</u> p n'gyats.                                                |
| 680.         | Is a male horse good ? Or a female ?                                         | Shtari ushp less ass näh ushp less<br>ess ?                                      |
| 681.         | The female horse is lazy.                                                    | <u>Shtari ushp</u> dangar ess.                                                   |
| 682.         | A male horse is very fast.                                                   | Nāh ushp bilugh shigil ess.                                                      |
|              | In every Kāfir village there is<br>a maternity hospital. (¶)                 | Sundi katõ grām ē p <u>sh</u> ar ezz.                                            |
| <b>684</b> . | Here there is no snow, it is <i>hot</i> , and good for tents.                | Ani sim n'ess, tabi ess, jilamá<br>dugã less ass.                                |

| 685. My house is very far, but your                                                 |                                                                         |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| house is very near.                                                                 | tawarē ass.                                                             |
| 686. In this village how many houses are there?                                     | Inā bagrom chok amu assil ?                                             |
| 687. My brother's house is very dirty.                                              | Iā brâ amu bilugh mul ess.                                              |
| 688. How much ghi shall I bring?                                                    | Chok ano avelom ?                                                       |
| 689. Why is that man howling?                                                       | Iktā mancht kai dugā châ witt?                                          |
| 690. I am very humble.                                                              | Ots bilugh drughti-wā assum.                                            |
| 691. In my country bulls have no hump.                                              | Iã gul tã ashē ku n'aiesht.                                             |
| 692. That hunch-backed man is the son of a mullah.                                  | Ikiā wāo mu <u>sh</u> tar mullā piţr ess.                               |
| 693. Thanks to keeping the fast, I<br>am very hungry, and have<br>become very thin. | Pochētr ngutesth dugā, <b>åttā bissam :</b><br>biluk daļr bissam.       |
| 694. The Mehtar has come to hunt (make sport).                                      | Mehar shurtr kusth dugã aiyo.                                           |
| 695. The doctor is clever and won't hurt you.                                       | Tapip biliuk ushukul assiā, tā nē<br>bradzāott.                         |
| 696. That woman says "my hus-<br>band is dead."                                     | Askā jugūr gijji kuttā "iāst mō <u>sh</u><br>mriss" kuttā.®             |
| 1                                                                                   |                                                                         |
| 697. The <i>Ibex</i> are not here; they have gone to the high hills.                | Mirishen ani n'aiesth; al do tā<br>gwā.                                 |
| 698. I have seen no ice anywhere this year.                                         | Inā sē shie kor n'wariām.                                               |
| 699. I have an <i>idea</i> that this year<br>there will be much heat in<br>summer.  | 0 wo <u>sh</u> tettam inā sē wasdor biliuk<br>tāp bolā.                 |
| 700. Thon art <i>idle</i> ; this is not time for sleep.                             | Tū yugh assish; inā wēl pshu wēl<br>n'ess.                              |
| 701. From excessive laziness thou hast become an <i>idiot</i> .                     | Tā biliuk p <u>sh</u> uik oss; askē dugā<br>tā chaŗŗā bissi <u>sh</u> . |

<sup>\*</sup> The last word of the sentence seems pleonastic: see also sentences Nos. 868, 1055, 1081, 1177, 1422, 1423, 1488, 1522. There are other sentences of similar construction (e.g., 819, 930, 1356), in which this last word is not used. This is one of the many points on which the Käfirs, who were employed to translate, disagreed.

| 702. If you go, I will go. If you don't go, I also won't go.                                                                | Tū enji bà õ di ēlom; tū n'enji-<br>bà õ di n'ēlom.                                          |
|-----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| 703. Thou art <i>ill</i> : come with me to<br>hospital: I'll give thee<br>medicine. My brother also<br>is very <i>ill</i> . | Tū bradso oshī: ī mēsh ozhumā tā<br>ats : õts azhur prēlom. Iāsi brá<br>di biluk bradso ass. |
| 704. Very well; I am coming im-<br>mediately.                                                                               | Lē; öts sapp ēlom.                                                                           |
| 705. He is a very impudent fellow.                                                                                          | Ik <b>i</b> ā manchi bilu <u>ah</u> chațțā ess.                                              |
| 706. In my house my child (only) is<br>left behind, and no one else.                                                        | • • • • • • • • • • • • • • • • • • • •                                                      |
| 707. You are a very independent<br>fellow, I will punish you<br>(beat).                                                     | Tū bilugh to chitt <sup>®</sup> tã manji a <u>sh</u> i,<br>tū wilom.                         |
| 708. You are a very industrious fellow.                                                                                     | Tū biliuk kud <b>ūm kul</b> manch <b>i</b><br><sub>2</sub> assi <u>sh</u> .                  |
| 709. I am an inhabitant of Bröz.                                                                                            | Õts Broz wārī assum.                                                                         |
| 710. The Afghans have done much<br>injury here.                                                                             | Aoghānī manchī anī bilu <u>gh</u> dagar<br>pilingī kars.                                     |
| 711. I did not kill Mir Khān, I am<br>innocent (have no crime).                                                             | Ots Mirkhān n'jāriss, kā dush<br>n'wasam.                                                    |
| 712. A coolie has fallen head down-<br>wards and is quite insen-<br>sible.                                                  | E barwai <u>sh</u> ië yür biti piltiss;<br>biluk bë <sub>t</sub> a biss.                     |
| 713. Inside my box is a lot of paper.                                                                                       | Adrē tā atēr bilugh ptī ai.                                                                  |
| 714. What do you intend? Shall<br>we go to-morrow or not?                                                                   | Tū kai bidl ess ? dalkið ēmâ ta<br>n'ēmâ ?                                                   |
| 715. According to your intention (as you please).                                                                           | Tō chitt.*                                                                                   |
| 716. I don't intend (my heart is<br>not).                                                                                   | lā chitt n'ess.                                                                              |
| 717. To <i>irrigate</i> my fields I will make a water channel.                                                              | Parest dugã ptul tã yō epamâ.                                                                |
| 718. I want iron to make an axe.                                                                                            | Padrī karosth dugā chimr õsh<br>kotam.                                                       |

\* Apparently a Chitrali idiom (707, 715, 716).

719. There is not one ironsmith in Angar eo di bari n'aischt. Aiyun.

## J

| J                                                           |                                              |  |
|-------------------------------------------------------------|----------------------------------------------|--|
| 720. You are a very <i>jabbering</i> man.                   | Tū biluk warī walal mancht assish.           |  |
| 721. Jackals make a great noise at night.                   | <u>Sh</u> iāl radhar bilu <u>gh</u> châ witt |  |
| 722. There is honey in the jar.                             | Kuni tã atūr mārchi assā.                    |  |
| 723. My <i>jaw</i> is broken by my fall-<br>ing.            | Lunisthi mish akilatti petangwā.             |  |
| 724. He is a very <i>jealous</i> (bad heart) man.           | manchi ess.                                  |  |
| 725. It is not good for boys to jest<br>too much.           | n'ess.                                       |  |
| 726. My brother gives a lot of <i>jewels</i> to his wife.   | <b>_</b>                                     |  |
| 727. This year there is no juice in the apples (not juicy). | 2                                            |  |
| 728. The junction of the Luttkhū                            | Mastīj gol <i>âo Lutkui gol âo</i> ē par     |  |
| and Mastūj rivers is a<br>plain, not a gorge.               | bitta tã diwar ass, arunt gol<br>n'ess.      |  |
| 729. The wood of the <i>juniper</i> burns very well.        | Sarêz dão angã karbâ lessta par-<br>chitta.  |  |
| 730. The Mehtar has just come<br>from Broz.                 | Mehr Bros tã starak aiyo.                    |  |
| 731. Do me <i>justice</i> ! I am in-<br>nocent.             | • Iā isop keht ! õ dush n'wâsam.             |  |
| •                                                           | 1 <i>4</i>                                   |  |
|                                                             | ĸ                                            |  |
| 782. The <i>Kāfir</i> language is very<br>hard to learn.    | Katő wari biluk n'zãrasth assā.              |  |
| 733. I am off on a journey. Keep<br>this box for me.        | p Badur samiritsam. Inā adrē iā<br>dugā ātē. |  |
| 734. Why have you not kept som bread to-day?                | e Achok bor petarak kyā na awitārā ?         |  |
| •                                                           | t Biliugh Atts high gights n'amitana         |  |

735. I was very hungry, so I kept Biliugh ättä bissi, giakti n'awitara. none.

\*I<u>sk</u>tri-s-ë,

wife-of him-to.

| 736. | My servant has lost the key of<br>my box.                                             | Iāst shodr iāst adrē askuē psess.                               |
|------|---------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| 737. | Why do you kick my horse ?<br>I will kick you.                                        | Tū kai dugā iā u <u>sh</u> pē på vich; tū<br>på vilom.          |
| 738. | -                                                                                     | Tū iā på vichī õ tū manoiā wilom.                               |
| 739. | I have an intention to kill<br>you.                                                   | Iã chitt bitto tū jãrlom.                                       |
|      | You are a very kind-hearted man.                                                      | Tū bilugh lõ bidiwā manch <b>i</b> assi <u>sh</u> .             |
| 741. | To show kindness to a snake<br>is not a good policy.                                  | Bibimst më <u>sh</u> mi <u>shish</u> th lest kudum<br>ness.     |
| 742. | The king has taken a bride.                                                           | Mehr <u>sh</u> trī awariss.                                     |
| 743. | In my <i>kitchen</i> , food is being cooked for all the men.                          | Iã buri kutan amu tã sang man-<br>chiān dugā anjī tyor kuttett. |
| 744. | A kite came down and took off<br>my chickor.                                          | Zhi marë oz iãst urr bri.                                       |
| 745. | A stone hurt my knee, as I was marching yesterday.                                    | Dus piliang tā zān pa wott<br>pūpta.(1)                         |
| 746. | Get a <i>knife</i> to cut meat.                                                       | Ano pețasthā kato giats.                                        |
|      | What art thou knitting? I am knitting a choga.                                        | Tū kai oshich ? Ōts shugā oshinam.                              |
| 748. | My rope has got knotted.                                                              | Iã kanik gittangus.                                             |
| 749. | What is your name? What                                                               | Tā kyā nām ess? Tottā kai nām                                   |
|      | is your father's name? I<br>do not know; my father does<br>not know.                  | ess? Iā shū ness; tõttio shu<br>ness.                           |
| 750  | I do not know the Chitrālī language.                                                  | $	ilde{O}$ Bilian wart n'zārlsam.                               |
| 751  | . I do not know Umrā Khān.                                                            | Õts Umra Khan n' järlsam.                                       |
|      |                                                                                       | L                                                               |
|      | 2. For men to do <i>labour</i> is good.<br>3. Get a <i>ladder</i> , I'll go on to the |                                                                 |

754. My hens have laid four eggs Iā ishtrī kakkak starak shtowa azio to-day.

karistā.

755. All the water of the lake is Panilē āo sundi she tin ass. frozen. 756. My white lamb is lame to-day. Ia kashir waki strak gujr kuttatt. 757. My horse is lame; all our Iā ushp kuttātt; emā sundi ushp horses are lame. kuttättett. Zhi marë badist tã wo āyo kakkok 758. A lammergeier came down from the sky and took off my damiti gwā. cock. 759. Why does not my lamp give a Iā tel kaikots ruch n'buttosal? light? 760. My land is not good for Ia bhim rits duga less n'ess. barley. 761. All the land is useless (not Sang bhim n'utkor ess. arable). 762. Is the land around your house Tū p'amu ptior bhim ābad assett cultivated or waste? zajir assett ? 763. Is your house on the high To pamu sirtan  $t\tilde{a}$  sett shor  $t\tilde{a}$ lands or low lands (valley)? assē ? 764. The Käfir language is very Katõ warī bilu<u>ah</u> aruswā essā. sweet. 765. This horse is small: get a large Inā ushp parmenstuk ess : Al ushp giats; iasi tott bilugh al manchi one; for my father is a large man. ass**ā**. 766. Last night I went to Broz. Dus rador Bruts gūssam. 767. Last month I was ill, now I am Põ-ē mõs bradzowā assium, starak ' well. adugë assum. Ikiā manchi bilugh tuti ptā; pēlik 768. He made many excuses; at last he took his load. bor ngūtā. 769. You have come late: there is Tū drē aiyosh : tū dugā bor n'aiesht. no load for you. 770. You have come late (inoppor-Tū malāl \* botī aiyosh. Mehr tū pati kör kusth dugā chotik n'ess. tunely). The Mehtar has not leisure to hear your (written) petition. 771. Why are you laughing ? The Tū kai dugā kanich ? Diwanbegi Diwänbegi is angry. mashu kolann.

\* As in Chitrali.

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- 772. Adjoining my house is a very I pamu ptior biluak shingira brunz pretty lawn and fruit trees. ass ; kachwach kāno dī asht. 778. My horse is very lasy; yours Iā ushp n'pā baless; tü ushp is fast. shatrami ess. 774. The dog is lasy and does not Krũi digar ess ; n'rattatt. hark.  $\tilde{\vec{O}}$  u<u>shp</u> tã wāo atsolam ; tū ngātēti 775. I shall get off my horse; you lead it. giats. 776. Lead thou; I will follow thee. Tū panoi bō; ō tū ptiwar atsolam. 777. You four men lead ; we four Sha shtowa manchi panoi bor: will follow. emâ shtowa manchi ptior atsomā. Purik kusthē dugā tūch giats. 778. Get lead to make bullets. 779. If we kill the enemy's leader, Emá pachanwari-ē jasht järlmá pachanwari manchi mukēlā. all will flee. 780. The enemy's leader has fled. Pachanwari jasht mukiss. 781. I can't learn the Chitrali Bilian wari pilangon (?) n'battam : language : it is very difficult. biluk zur assā. dugā mareshin 782. To make (sew) pubboos bring Wetso shewesth some ibex leather. chiom gats. 783. Why hast thou gone? I did Tū kā gā-osh ? Iā pur n'grussish. not give thee leave. 784. Come back! I do not give Anī ats! Tū purū n'ngattam. Dār thee leave to depart. Break pēțē; tū samīlam. up this wood: then I will give thee leave. Dalkiē emâ ruch 785. We shall leave Chitral at daybibâ Shdrāl stã ēmā. light to-morrow. 786. At time of starting leave the Samri bâ zîr krûi tarā kahi. yellow dog behind. 787. Summer has gone; the leaves Wizdor gwā ; shtomata por wiazia. of the tree are falling. 788. A horse will go, but it must be Ushp aili, wanamdi barēbā. led. 789. The Mehtar has eaten his food ; Mehr yash iaro; ajik yash utta this much meat is left. bistai.
  - 790. Why is Pir <u>Khan</u> left behind ? He is not ill.

Pirkhān kai dugã wopsin ess? Bradzo n'oss.

| <b>7</b> 91. | My right leg aches; my left<br>leg is all right.                   | Iāst pchūtar chōn bradsott; kõwar<br>chōn lesst ass.               |
|--------------|--------------------------------------------------------------------|--------------------------------------------------------------------|
| 792.         | To-day I have no <i>leisure</i> ; come<br>to-morrow.               | Starak iā wom n'ess ; dalkis ats.                                  |
| 793.         | I will lend you one rupee for two months.                          | Tū ē tang dū mõs tã dã kulom.                                      |
| 794.         | I lent you one rupee last year,<br>you have not given it back.     | Pō sē ĩ ē tang dã karsi <u>sh</u> , tū ō<br>n'ptā'm.               |
| 795.         | Chānlu killed a large <i>leopard</i><br>on the mountain yesterday. | Dus Chãlū bado <u>sh</u> ai ál juț jãriss.                         |
| 796.         | Don't bring so much ghi; bring <i>less</i> .                       | Ajik ano n'gyats ; achok giats.                                    |
| 797.         | A load of my grass has fallen<br>into the river. Let it alone.     | Iāstē bōr po-ē gwā. N'cho; piz<br>bilā.                            |
| 798.         | A man has brought you a <i>letter</i> of the Mehtar.               | Manchī tā dugā Mehr'st pati<br>awariss.                            |
| <b>7</b> 99. | What is the use of telling lies?                                   | Mizhosth kai ōt (od?) ess?                                         |
| 800.         | The Chitralis tell many lies (are very lying).                     | Bilian bilugh mi <u>sh</u> āl.                                     |
| 801.         | Sir I this boy tells many lies.                                    | Sāhib! Inā marir bilugh mishott.                                   |
| 802.         | If you tell <i>lies</i> , I will beat you.                         | Tū mi <u>sh</u> och silibo wilom.                                  |
| 803.         | A woman's corpse is lying on                                       | Jugūr mriss akīo bhīmā wotriss ;                                   |
|              | the ground; I am sure<br>there is no <i>life</i> in it.            | õts wi <u>zh</u> anam ikiā tā <u>ah</u> ā ness.                    |
| 804.         | My house is dark ; <i>light</i> it.                                | Iã pamu andhar biss ; roch k <u>sh</u> i.                          |
| 805.         | The coolies say "our loads are<br>very heavy : lighten them."      | Barwai gijjī kund emā bor gāwā<br>asht; lugā kshī.                 |
| 806.         | Tell the man to <i>light</i> a fire.                               | Manchi walō angā parchiālā.                                        |
| 807.         | I saw the <i>lightning</i> ; I did not hear the thunder.           | De <u>sh</u> pilsal wariām; uderl n'sang-<br>āyā.                  |
| 808.         | These two brothers are exactly alike.                              | Amni dū brd ē yör asht.                                            |
| 809.         | My <i>lips</i> are split with the cold.                            | lễ yũ <b>sh</b> t skille tế pețangwa.                              |
|              | Listen ! I think a thief is coming.                                | Kör kti! bibdi kshām shtär aiyo.                                   |
| 811.         | Don't give my horse much                                           | $I \widetilde{a}^{\widetilde{a}}$ ushp pul lē n'ētē, achok ptē (?) |
|              | grain, give him a <i>little</i> .                                  | ( <i>prē</i> ).                                                    |
| 812.         | Give me a <i>little</i> food.                                      | Iã achok brē prē.                                                  |

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| 813. Where dost thou live?                                                                         | Tū kāwo gul tā buch ?                                                                                                          |
|----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| 814. I live in Broz.<br>815. One coolie has brought a load                                         | Ots Brāz ni <u>sh</u> inissam.<br>E barwai zīma tā bor awāŗā.                                                                  |
| of snow.<br>816. Why have you loaded my<br>gun?                                                    | Iã tapik tū kai soss tã attu <u>sh</u> iss ?                                                                                   |
| 817. The locusts have done much harm to my crops.                                                  | Gu <u>sh</u> rogu iãst ptul biliuk piss<br>kriss.                                                                              |
| 818. This mountain is very lofty.                                                                  | Iyē bado bilu <u>gh</u> opign <b>ā</b> ess.                                                                                    |
| 819. The coolies say "We cannot<br>drag so large a log."                                           | Barwai walettett (gijji kund) " emd<br>ajistuk al argru kshon n'batta-<br>mish."                                               |
| 820. This log is very long: cut it exactly in two.                                                 | Inð argru biluk drigri ass : p'mijhū<br>pētang.                                                                                |
| 821. My loin-cloth is tight; loosen<br>it.                                                         | Iã shirr wishts ass ; jijil kshs.                                                                                              |
| 822. Look ! when the coolies appear, tell me.                                                      | Aĭ <u>sh</u> k <u>sh</u> i! koi barwai waŗĩbâ iẫ<br>walō.                                                                      |
| 823. The men of this village are<br>very poor; no one has a<br>looking glass.                      | Inā bagrom manch <b>ī</b> biluk dru <u>s</u> ht <b>ī-</b><br>wā manchī a <u>sh</u> t; eo d <b>ī taŗē</b><br>n'aie <u>sh</u> t. |
| 824. The government soldiers don't wear loose clothes.                                             | Sirkāro spāhī frāk zapp n'amjind.                                                                                              |
| 825. The Chitrālīs let their horses<br>loose in this forest in sum-<br>mer.                        | Bilian manchī wizdor am <u>sh</u> īest<br>u <u>sh</u> pān ikīā psōn nachâttett.                                                |
| 826. My horse's girth is loose :<br>tighten it.                                                    | Iā u <u>sh</u> p trang jijil b <b>iss : iki</b> ō<br>wi <u>s</u> htē.                                                          |
| 827. I took a herd of goats yester-<br>day on the top of the pass.<br>I have <i>lost</i> them all. | Dus ga <u>sh</u> dōm badō <u>sh</u> ai awarissi :<br>sang keti psiā.                                                           |
| 828. The coolie says he fell and his load is lost.                                                 | Barwai gijjī kutt õ paltiosam, bo <del>r</del><br>psiā.                                                                        |
| 829. A man is going, a lotah in his<br>hand having taken.                                          | E manchi kuniyā b'do <u>sh</u> damēti<br>prētt.                                                                                |
| 830. Last night a <i>loud</i> sound came<br>on my ear. I don't know<br>what can have happened.     | Rador kotë wari iã p'kor gwa.<br>Kai wari bosel iã <u>sh</u> ū n'ess,                                                          |

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| 831.         | In spring my garden is very lovely.                                    | Bosut wokt tä iä darestä shingirs<br>bā.                                          |
|--------------|------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| 832.         | All the coolies have come : they<br>have done no loss (harm).          | Sang barwai aiyā : kai bāpsā n'kris-<br>siā.                                      |
| 833.         | I heard the sound of the low-<br>ing of the cattle.                    | Gå arsett : iã sangāyâ.                                                           |
| 834.         |                                                                        | <u>Sh</u> drāl noi kālo nīr ess; sium kālo<br>. chīr ess.                         |
|              | I have sown lucerne seeds here.                                        | _                                                                                 |
| 836.         | Your <i>luck</i> is good; mine is little.                              | To barë lë assiā; iā barë utetti ess.                                             |
| 837.         | That coolie is not weak; he is a <i>lunatic</i> .                      | Stā barwai daŗē n'ess ; ber ass.                                                  |
| 838.         | My <i>lungs</i> ache from much coughing.                               | Bilugh kassetum : atår bradzott.                                                  |
|              | r                                                                      | Α                                                                                 |
| 839.         | That man talks much non-<br>sense; I think he must be<br>mad.          | Stā manchi bilugh berān walett;<br>õ purjitom chațța assel.                       |
| <b>84</b> 0. | The magpie is not a bad bird;<br>he does not eat up our<br>maize.      | Biliankor digar marangats n'ess;<br>jigor n'yūtt.                                 |
| 841.         | I have given money; if any<br>man is dissatisfied, let him<br>tell me. | I paiz ptā; kāchi manchi n'shoti-<br>nestabā, i walā.                             |
| 842.         |                                                                        | U <u>shp</u> tã maroik (marengi) tã dro<br>( <u>ah</u> o) digar bistai; changrōt. |
| 843.         | You have no manliness, you are become idiotic.                         | Tū kai less bidi ness, tu chattā<br>bissish.                                      |
| 844.         | Much manure is collected<br>near my house.                             | la pamu torë bilink dsal wasan-<br>ristai.                                        |
| 845.         | On that hill are many thieves.<br>In my village there is not           | Ikiā pashi tā shtār le asht. Iā<br>bagrom eo shtār n'ai.                          |

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| 846. Is Bragamatal a full day's<br>march to Chitrāl or nearer?<br>It is a two days' march.<br>For a man with a load it is<br>a three days' march. | Bragamatal <u>Sh</u> drālē gujr pott ess<br>tawarē ess? Dū gajr pott ess.<br>Barwai bōr ngāti trai gajr pott<br>ess. |
|---------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| 847. What mark is that on your hand?                                                                                                              | Tū dush tā kai nizhân ess ?                                                                                          |
| 848. The <i>Markhor</i> have not come<br>down this year from the<br>hill.                                                                         | Starak sē <u>sh</u> āru bado stē yūr n'āyā.                                                                          |
| 849. Many men have come for my brother's marriage.                                                                                                | manchī wasanristai.                                                                                                  |
| 850. My brother married (took a wife) last year.                                                                                                  | <i>Iễ brâ pō s</i> ẽ jug <b>ữ</b> r awŗi.                                                                            |
| 851. Look ! Mirak's horse has got bogged in a marsh.                                                                                              | Aīeh kehi! Mirak ushp shur tõ<br>wurshia.                                                                            |
| 852. You are master (great)! I<br>am your servant.                                                                                                | -                                                                                                                    |
| 853. What is the matter with you ?                                                                                                                | $T\bar{u}$ kai bissish ?                                                                                             |
| 854. What is your meaning? I<br>can't understand your<br>speech.                                                                                  | Tū kai manīchi; tā warī n'pur-<br>josam.                                                                             |
| 855. It is three days since I have<br>eafen any <i>meat</i> : so I am<br>hungry.                                                                  | Troi upos ano bittā iā n'iār: áttā<br>bâ.                                                                            |
| 856. My servant coughs much;<br>what <i>medicins</i> is good for<br>him?                                                                          | lã <u>sh</u> odr bilugh kasett; ik <b>i</b> ð duga<br>kai u <u>sh</u> ā lestabalā?                                   |
| 857. My stomach is swelled from<br>eating (I have eaten) too<br>much melon.                                                                       | Karbiza bilu <i>gh</i> iãrā iã ktol álla bā.                                                                         |
| 858. The ghi is frozen : melt it.                                                                                                                 | Ano shë tin ess ; ikië tipao.                                                                                        |
| 859. My cloth is torn: sew it (mend it).                                                                                                          | Iã bazisná ushi bistai : ikiā shiwē,<br>(lesta kahī).                                                                |
| 860. My gun is broken; get a car-<br>penter to mend it.                                                                                           | Iā̃st tapak pețangess; ikiā less<br>kusth dugã dāo sellē giats.                                                      |
| 861. In Chitrāl there are many mendacants.                                                                                                        | Shdrāl kalandarē bilugh asht.                                                                                        |

862. The merchant is a great thief Sådawai bilugh shtär ess; sang wõr ladel ess. and always lies. Odh bō; tā mash kotish tā do-863. Be merciful: if you are merciless, you will go to Hell. zako tã elosh. 864. The Mehtar has sent two Mehr Dir Khān dū manchi lader krishtai. messengers to the Khan of Dir. Grish bilugh top butt. Rador bar-865. At mid-day there is great Just at mid-night bor shillā butt. heat. it is cold. Ia do pig biss, zu pilom. 866. I am thirsty, I will drink milk. 867. Bring the cow to milk her. Gâo giats, dolamão. Gáo dulē. I have milked the cow. 868. The babu says "grind the Babu gijji kutt "rits pshio" kutt : barley "; but there is no . apshian n'ai. mill. 869. The miller says the stone of Apshian manchi gijji kutt apshian his mill is broken. war peringess. Iãst ptul digar ess : gum ness, 870. My cultivation is bad: I have no wheat, only millet. katså ess. Iā p'kor gwa ina b'gul ashtrutt 871. I have heard that in this valley is a mine of lead stone. tuch kön ess. 872. There is much mist, and one *Bilu<u>ah</u> mễh* biss, pachanwari can't see the enemy. warantan n'buttett. Ia larissa : troi manchi aiya, shto 873. I made a mistake; three men have come, not four. manchī n'aosht. 874. Mix this medicine with water Inā wushē āo mish suntro katī pī. and drink. Biliuk kai nowā manchī assum : iā 875. I am very poor and have no money whatever. mesh e paiz di n'aiesht. 876. There are clouds, so the moon Nāru'ssā, mös lesstakā n'waron is not well visible. prētt. Dalkie salken war noi mos atseli. .877. To-morrow evening is new moon. 878. To-day is half moon. Starak gajar napūr ess. 879. It is two days after full moon. Mos pichis oss biti dū oss di biss. 880. You have eaten much; don't Tū biluah iār; wārā n'yū; shtār. eat more; you will be sick chi. (vomit).



| 881. Awake me in the morning;<br>don't let me sleep.                                                                                                                           | Yazhi wel tä iä bektea; pehuikan<br>n'ūtan (?).                                                                                                              |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 882. Mosquitoes bite much; I can't sleep.                                                                                                                                      | Kõ bilugh yüttett; pshon n'battam.                                                                                                                           |
| 883. In the summer moths get at the clothes.                                                                                                                                   | Wizdör basnā tā wēk buttett.                                                                                                                                 |
| 884. It is two months since my                                                                                                                                                 | Dū mōs biss iāst non mrissī.                                                                                                                                 |
| <i>mother</i> died.<br>885. The road is level now; <i>mount</i>                                                                                                                | Pott diwari ese; ushp p'sir nishē.                                                                                                                           |
| your horse.<br>886. The mountain is very high.                                                                                                                                 | Pashi bilugh al ess.                                                                                                                                         |
| 887. On the top of the mountain there is much snow.                                                                                                                            | Ashtrē p'sir zīm bilugh ess.                                                                                                                                 |
| 888. Mountaineers are good for car-                                                                                                                                            | Atür manchi ál bör ngusth dugã<br>less asht.                                                                                                                 |
| rying heavy loads.<br>889. The road to Urguch is bad; a<br>footman will arrive quicker<br>than a mounted man.<br>890. In winter the (mouse) mice<br>go somewhere or another.   | tess and.<br>Arguich putt digrī ess; nabpo sir<br>manchī tā kūro manchī kuiyā<br>Argui <u>ch</u> prāl.<br>Ziwōr mussā kōr etassal. Starak<br>p'ochen ettett. |
| They have come now to<br>light (to the eyes) again.<br>891. Mirak and Basti are not alike.<br>Mirak has moustachios and<br>Basti has not.<br>892. Mirak has a big mouth; Basti | n'asht.<br>Mirak ashi dless;  Basti-o ashi                                                                                                                   |
| has a small <i>mouth</i> .<br>893. This place is not good for<br>pitching a tent, there is                                                                                     | Aniō jaga jilamâ uchasth dugã                                                                                                                                |
| much mud.<br>894. There is much wood here.<br>895. A mud stream came last year                                                                                                 | Anī dā lē ai.<br>Pō se kūri āyā iāst ptul brā.                                                                                                               |
| and destroyed my crops.<br>895. In my garden there are many<br>mulberries.                                                                                                     | U8/11.                                                                                                                                                       |
| 897. In Drösh there are five hundred government mules.<br>898. The mule is better than the ass for load carrying in the                                                        | Atur bor ngusth dugā kur-ē tā                                                                                                                                |
| hilly country.                                                                                                                                                                 |                                                                                                                                                              |

- 899. I am sure Samar has murdered Basti ; Basti is dead.
- 900. Dan Malik is a murderer and his father and grandfather. They are all bad men.
- 901. The musicians made a great noise last night amongst themselves.
- 902. The muzzle of my gun is filled up with mud (in the middle of opening of gun).
- 903. In Chitral are many mynahs : there are none in the highlands.

- Iāst bidi assā Basti-ē Samar jāriss ; Basti mrā.
- Dan Malik manchi järl assa, tott's di wāo's di manchi järl assā. Sundi digar manchi asht.
- Dus radar durwā amshiā p'mish biluk rārā kriss.
- läst tapkið ashi tā atureni shur biss.

Shdrāl satr marangats lē asht; srētā n'asht.

### Ν

- 904. An iron nail has broken my Chimētku nāche tā mizhe. finger nail.
- 905. Give the name of each individual coolie.
- 906. The officer says give me ten Kāfir names. Well! listen! (Here follow ten names.)  $(\P)$
- 907. The road is narrow : two laden mules can't go abreast (or in pairs). One must follow the other (one in front, one behind).

908. This is a nasty road.

- 909. The water is nasty : fetch some Inā ūgh\* nang ess : leo ūgh gats. good water.
- 910. This fruit is nasty to taste Inā kajwaj aruzwai n'asht. (not luscious).

- Sang barwai kūr kūr nom iā tā walō.
- Sāhib gijji kutt iā tā dus Kato manchi nom walo. Lē ! kor ktē ! Aror, Basti, Chalu, Dan Malik, Garak, Karuk, Mirak, Mori. Samar, Widing.
- Putt arani ess: dū kachor bor ngātī yāmna bītī ē n'battett; ē panishar bibå ē plior bibå lessta balā.

Inā putt digar ess.

Chitrali:



I

## ENGLISH-BASHGALI SENTENCES.

| 911. Stay near me, for I can't hear your words.                                                                                                                                                                                                                                                                                              | Tū iā tā nishē, tū warī iā p'kor<br>n'aiett.                                                                                                                                                                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 912. Take away the water; I have<br>no necessity for it.                                                                                                                                                                                                                                                                                     | Ao gië; âo kā ūd n'ess.                                                                                                                                                                                                                                                       |
|                                                                                                                                                                                                                                                                                                                                              | Bör ngusth dugã kumo bradzott.                                                                                                                                                                                                                                                |
| 914. There is not a needle in our village.                                                                                                                                                                                                                                                                                                   | Emâ bagrom ē chimchich dī<br>n'aiest.                                                                                                                                                                                                                                         |
| 915. Our women don't know what<br>sort of thing is a needle.                                                                                                                                                                                                                                                                                 | Emâ jugūr n'zātett chimchich kai<br>lattrī ess.                                                                                                                                                                                                                               |
| 916. My horse neighs much: I am sure he is hungry.                                                                                                                                                                                                                                                                                           | Iā ushup bilush rārā kutt: õ<br>purjitam áttā biss.                                                                                                                                                                                                                           |
| 917. Garak is my neighbour and is<br>a very stingy fellow.                                                                                                                                                                                                                                                                                   | Garak emá amu vishī ass : bilugh<br>nashtā ass.                                                                                                                                                                                                                               |
| 918. Mori has married my<br>nephew's daughter.                                                                                                                                                                                                                                                                                               | Mori iã nawõs jus shtari kriss.                                                                                                                                                                                                                                               |
| 919. You are a bad lot; I'll never<br>forgive you.                                                                                                                                                                                                                                                                                           | Tū digar manchi assish; tū kol di<br>kai n'prēlom.                                                                                                                                                                                                                            |
| 920. Is that <i>new</i> snow on the mountain?                                                                                                                                                                                                                                                                                                | Badō enai noi zim assā?                                                                                                                                                                                                                                                       |
|                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                               |
| 921. I haven't seen : I have no news.                                                                                                                                                                                                                                                                                                        | Iā n'waŗĩs : iā kai shū n'ess.                                                                                                                                                                                                                                                |
| <ul> <li>921. I haven't seen : I have no news.</li> <li>922. This month (having) gone,<br/>next mont I will go to<br/>Drosh.</li> </ul>                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                               |
| <ul> <li>922. This month (having) gone,<br/>next mont I will go to<br/>Drösh.</li> <li>923. This year he ving gone, next</li> </ul>                                                                                                                                                                                                          | Inā mõs gaiebá sõr mõsa tä Dryus<br>ettam.                                                                                                                                                                                                                                    |
| <ul> <li>922. This month (having) gone,<br/>next mont I will go to<br/>Drösh.</li> <li>923. This year he sing gone, next<br/>year I am going to Pesh-</li> </ul>                                                                                                                                                                             | Inā mōs gaiebá sör mōsa tā Dryus<br>ettam.<br>Inā sē gaiebá sör sē tā Peshár<br>ēlom.                                                                                                                                                                                         |
| <ul> <li>922. This month (having) gone,<br/>next mont I will go to<br/>Drösh.</li> <li>923. This year he ving gone, next<br/>year I am going to Pesh-<br/>äwur.</li> </ul>                                                                                                                                                                   | Inā mōs gaiebá sör mōsa tā Dryus<br>ettam.<br>Inā sē gaiebá sör sē tā Peshár<br>ēlom.<br>Inā putt shturē dugā less.                                                                                                                                                           |
| <ul> <li>922. This month (having) gone,<br/>next mont I will go to<br/>Drösh.</li> <li>923. This year he sing gone, next<br/>year I am going to Pesh-<br/>āwur.</li> <li>924. This road is nice for camels.</li> <li>925. By night two thieves came to<br/>my house.</li> <li>926. The noblemen of Chitral are</li> </ul>                    | <ul> <li>Inā mös gaiebá sör mösa tä Dryus<br/>ettam.</li> <li>Inā sē gaiebá sör sē tā Peshár<br/>ēlom.</li> <li>Inā putt shturē dugā less.</li> <li>Radhar dū shtar ĩ pamu āyā.</li> </ul>                                                                                    |
| <ul> <li>922. This month (having) gone,<br/>next mont I will go to<br/>Drösh.</li> <li>923. This year hering gone, next<br/>year I am going to Pesh-<br/>āwur.</li> <li>924. This road is nice for camels.</li> <li>925. By night two thieves came to<br/>my house.</li> </ul>                                                               | <ul> <li>Inā mös gaiebá sör mösa tä Dryus<br/>ettam.</li> <li>Inā sē gaiebá sör sē tā Peshár<br/>ēlom.</li> <li>Inā putt shturē dugā less.</li> <li>Radhar dū shtar ĩ pamu āyā.</li> </ul>                                                                                    |
| <ul> <li>922. This month (having) gone,<br/>next mont I will go to<br/>Drösh.</li> <li>923. This year he ving gone, next<br/>year I am going to Pesh-<br/>āwur.</li> <li>924. This road is nice for camels.</li> <li>925. By night two thieves came to<br/>my house.</li> <li>926. The noblemen of Chitral are<br/>very good men.</li> </ul> | <ul> <li>Inā mös gaiebá sör mösa tä Dryus<br/>ettam.</li> <li>Inā sē gaiebâ sör sē tā Peshår<br/>ēlom.</li> <li>Inā putt shturē dugā less.<br/>Radhar dū shtär i pamu āyā.</li> <li>Shdrāl âl manchi lē manchi ashth.</li> <li>Tü biliuk âl bidio (zira-wā) manchi</li> </ul> |

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| 930. I saw a man yesterday who<br>has no <i>nose</i> . He says a<br>bear tore it off.                                                 |                                                                                                  |
|---------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| 981. Inside my nostril is a boil.                                                                                                     | Nasur tā ater apsiss.                                                                            |
| 932. The coolies have not yet come;<br>but I have seen they are near.                                                                 | Barwai n'āyā ; $\overline{\widetilde{i}}$ wariām turð asht.                                      |
| 933. You ask a copper from me?<br>I have nothing. Why should<br>I give coppers for nothing?                                           |                                                                                                  |
| 984. Now they have come, but one man is left behind.                                                                                  | Starak āyā: ē barwai ptior otin<br>ess.                                                          |
| 935. In my valley are many nullahs.                                                                                                   | Iã watan tã bilugh gul asht.                                                                     |
| 936. My fingers are all numb with cold.                                                                                               | Shillë angur shangur bistai.                                                                     |
| 937. The numda of my saddle is all wet with the horse's sweat.                                                                        | Zin toküm u <u>sh</u> p khel tä <u>sh</u> ilā biss.<br>-                                         |
| 938. Our friends are <i>numerous</i> , and the enemy few.                                                                             | Bmå zotr lē a <u>sh</u> t : pachan wa <b>rī</b><br>achok ai.                                     |
|                                                                                                                                       | o                                                                                                |
| 939. I take an <i>oath</i> I will kill Dan<br>Malik.                                                                                  | la upott * chim (uputt dibi) Dan<br>Malik järlam.                                                |
| 940. You are a bad lot; you obey<br>no one's word.                                                                                    | Tū digar manchī assish; ko warī<br>n'swēguch.                                                    |
| 941. If you offend (make small of<br>me) I'll bring you to grief<br>(evil).                                                           | Tū iã parmenstuk kuchi tū digar<br>kalom.                                                        |
| 942. There is no oil for lighting the lamp.                                                                                           | Ptremshuk pashiðsth dugấ tél n'ess.                                                              |
| 943. My clothes are become old.                                                                                                       | <i>Iā basisna</i> siūm bistai.                                                                   |
| 944. Our house has got old (in ruins).                                                                                                | Emá'st amu witrliss.                                                                             |
| 945. I can't understand the old<br>man's talk; his teeth have<br>fallen and he mumbles; his<br>old woman also doesn't speak<br>clear. | Wāo warī tī <u>sh</u> n'butt; dut waron-<br>stai; wā-wā-wā kutt; wāl di lesst<br>warī na walett. |

\* As in Chitrali.

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| 946. The wood of the <i>olive</i> is very strong for walking sticks, and won't break.                                                                                                                                                                                                                                   | Kāo dār manoī kusth dugā less<br>ass; n'pŗðliss.                                                                                                                                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 947. On the Chitral road there are thieves.                                                                                                                                                                                                                                                                             | Ba Bilian puttan shtär ai.                                                                                                                                                                                                                               |
| <ul> <li>948. On my table a knife is left.</li> <li>949. On my head is a boil.</li> <li>950. On that hill there is no grass.</li> <li>951. Have you done this on purpose or forgetfully?</li> <li>952. If I climb a hill, my head aches. Why does your head ache? You don't march on your head; you march on</li> </ul> | Kunā ptsir ktā (kato) wutarst.<br>P'shai p'mīju apsiss.<br>Ikē pashī tā yūs n'ess.<br>Tū enā kudūm tinj bītī karsā par-<br>marshtētī karsā?<br>Õts badō eila bimbā shai bradzonn.<br>Tostā shai kyā bradzon? Tū<br>shai wrē na anjī, tū kũr wrā<br>anjī. |
| your legs.<br>. 953. Call up the coolies one by<br>one.                                                                                                                                                                                                                                                                 | ·                                                                                                                                                                                                                                                        |
| 954. Once I fell into the river, so I fear it much.                                                                                                                                                                                                                                                                     | E wor poi p'mĩsh lunissam bilugh<br>widarēttum.                                                                                                                                                                                                          |
| 955. I was left behind on the top of<br>the pass. For three days<br>I have only eaten wild<br>onions; I had no food with<br>me; I am hungry.                                                                                                                                                                            | Badā shai wopsanossum. Troi wās<br>koponn iār wārē kā n'iār; bre<br>n'assī; átta bā.                                                                                                                                                                     |
| 956. I have brought a donkey load<br>of onions for the sepoys.                                                                                                                                                                                                                                                          | $E$ bõr trashtn spāhī dug $\widetilde{a}$ awēŗā.                                                                                                                                                                                                         |
| 957. I have only one horse.                                                                                                                                                                                                                                                                                             | Iā ē ushp ass; wārā n'aiesht.                                                                                                                                                                                                                            |
| 958. Near my house are holly trees only, and no other trees.                                                                                                                                                                                                                                                            | Inā pamu tawarē wanzī a <u>sh</u> t, wārē<br>kāno n'aie <u>sh</u> t.                                                                                                                                                                                     |
| 959. Mirak is a great hunter; he has killed a big <i>corial</i> to-day.                                                                                                                                                                                                                                                 | Mirak bilu <u>gh sh</u> artri assā ; starak<br>gujr ál mirish järiti āyā.                                                                                                                                                                                |
| 960. My box is not open.                                                                                                                                                                                                                                                                                                | lã adr guns n'ess.                                                                                                                                                                                                                                       |
| 961. Bring an axe to open my box.                                                                                                                                                                                                                                                                                       | Iã adr guna kusth dugã pets giats.                                                                                                                                                                                                                       |
| 962. My opinion is the enemy is about fleeing.                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                          |
| 963. Chānlū seeks an opportunity<br>to harm my work.                                                                                                                                                                                                                                                                    | Ohãlū iã kudūm nashisth dugã<br>alsh kutt.                                                                                                                                                                                                               |

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#### ENGLISH-BASHGALI SENTENCES.

- 964. Be on the watch; seize the opportunity of Widing going out of his house to kill his dog.
- 965. On the opposite bank of the river two men are marching even with us.
- 966. The Kāfirs are very poor (of no account); the Chitrālīs oppress them much.
- 967. To kill an oppressor is fair.
- 968. You are a great man. I will obey whatever orders you give me.
- 969. I gave you an order to bring five men. The head man says there are not five men (available).
- 970. The golden *oriole* is a very pretty bird and sings sweetly in spring.
- 971. This little boy is an *orphan*: his father and mother are both dead.
- 972. Our cows are all grown thin.
- 973. My brother killed some man, so he is an *outlaw*.
- 974. Get outside the house ; you are a fool.
- 975. I owe Chānlū two rupees.
- 976. Ouls frequent my garden at night.
- 977. This is my own horse.
- 978. Do you own an axe?
- 979. The owner of the house has Inā amo wārī Peshār gwā, gone to Peshāwur.

- Aĩsh kehi; Widing pamu begũ bấ sōs kati krũi jãr.
- Poi per du manchi emâ mêsh tĩch kati ettett.
- Katā kai no-wā asht; Bilian biluk utili buttett.
  - Utili bul manchi järibá less.
  - Tū âl manchī assish ; tū kai manumbâ õ kulom.
- Iā tā tē ponj manchi gaiet hukm ptāshuss. Jasht ponj manchi n'āio kutoss.
- Komlik pgoluk (?) marangats biluk shingur ossā; wosut lesst watsett.
- Inā parmenstuk marir tsarr ess: inā tōtt's dī mriss inā nōn's dī mriss.
- Emâ gâo sang bilu<u>gh</u> dadar bistai.
- Iā brā manchi jāriti chili biti gūs.
- Pamu bē i; tū bēr assish.
- Öts Ohãlū-ē dū tangē dām assum. Rador iā b'darestā bāghrē lē af**sid**.
- Inā iš u<u>shp</u> ess. Wezō (pots) tī mesh assē ?

# P

| 980. My arm pains; and both my eyes ache.                                                                        | Iā doi bradzott; dū achið sots<br>kuttett.                                                  |
|------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| 981. The sepoys are marching in pairs.                                                                           | Spāhi yamnā buti end.                                                                       |
| 982. The Mehter has built a new palace.                                                                          | Mehar noi ni <b>ch</b> i amu krishtai.                                                      |
| 983. Your face is <i>pale</i> : I am sure<br>you are ill.                                                        | To miok adrā biss: õ purzanam<br>bradso-wā assi <u>sh</u> .                                 |
| 984. You killed my brother: I<br>won't pardon you.                                                               | Tū iā brá jārise : 8 n' pmi <b>sh</b> tēlam.                                                |
| 985. Your <i>parents</i> are well bred;<br>and why do you take to<br>thisving?                                   |                                                                                             |
| 986. Make this apple into three parts.                                                                           | Inā pārro trē pārti k <u>sh</u> ī.                                                          |
| 987. The flesh of the hill <i>partridge</i><br>is unpleasant to me; I<br>don't eat it.                           | U <sub>III</sub> ō ano iā dugā digar ess; <del>d</del><br>n'aietam.                         |
| 988. The Lawari (Bāoli) Pass (col)<br>is very difficult in winter.                                               | Rāolī-yor pa <u>kh</u> talā sivor biliuk<br>digar ess.                                      |
| 989. The Gangalwatt pass is harder than the Lawari.                                                              | Rāoli-gor pakhtalē tā Gāgri-wott<br>pakhtalā digar ess.                                     |
| 990. I shall pass three days at Droah.                                                                           | Trē gujr Dryus nishilom.                                                                    |
| 991. At the foot of the Gangalwatt<br>Pass there are only pasture<br>lands of the Käfirs; there<br>is no hamlet. | Gāgri-wott bado pagūrā Kato son<br>ess ; grām n'ess.                                        |
| 992. Across the river is a narrow <i>path</i> ; it is not fit to take a horse.                                   | Pōē pãr limrai pott ess; u <u>shp</u><br>pilangōsth pott <b>n</b> 'ess.                     |
| 993. It is only a goat <i>path</i> , not a horse road.                                                           | Dushān pott ess, ushp pott ness.                                                            |
| 994. You are an impatient fellow : have patience.                                                                | Tā tupetich manch <b>ī</b> a <b>ssi<u>t</u>h : d<b>arā</b><sup>*</sup><br/>k<u>sh</u>ī.</b> |

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| 995.  | The Pathäns have fixed my<br>pay at three rupees per<br>mensem.                    | Aoghāni iā dugā mos tā trē tanga<br>mājib prēttett.                         |
|-------|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 996.  | The peaches of Ranbūr are as big as my hand.                                       | Konisht äru ið duð tá brobar ál<br>asht.                                    |
| 997.  | All the <i>pears</i> this year are sour.                                           | Inā sē sundī tong gū bistai.                                                |
| 998.  | The Hindustāni people are<br>very dark.                                            | Hindustan-o manchi biluk zhi asht.                                          |
| 999.  | In winter the body gets warm<br>by eating pepper.                                  | Zawor morch iārabā jitt tapett.                                             |
| 1000. | You are a <i>perfect</i> man! You talk Bashgali very clearly.                      |                                                                             |
| 1001. | Some one is cooking meat;<br>I smell its perfume.                                  | Manchi ano pachitt; ano tā gun<br>afziā.                                    |
| 1002. | There are many clouds; I<br>think <i>perhaps</i> it will rain;<br>God only knows.  | Nāru bissā ; <b>eh</b> telē agal prēlā<br>was <u>h</u> itam ; Imrā jārlann. |
| 1003. | When you have given me<br>leave ( <i>permission to</i> ), I shall<br>go to Ranbūr. | Tā iā koš purā kolaibā Konisht<br>ēlom.                                     |
| 1004. | My horse is all <i>perspiration</i> from galloping.                                | Iā u <u>sh</u> p bilu <u>gh</u> shagi tā ashpā<br>afziā.                    |
| 1005. | You are a <i>pertinacious</i> fellow.                                              | Tū biliuk söp sip manchi essish.                                            |
| 1006. | Are there <i>pheasants</i> in your forest?                                         | Tū pashur tā bātachol ashtī?                                                |
| 1007. | There are no <i>pheasants</i> ; but<br>there are lots of monāls.                   | Bātachol n'aiesht; bābakar le asht.                                         |
| 1008. | Get a pick to pick out stones.                                                     | Wõtt ukshosth dugā võsh giats.                                              |
|       |                                                                                    | Iās barwai jil wo uktsess: alēr                                             |
| 1010. | Give me a <i>piece</i> of meat.                                                    | Ia achok ano giats.                                                         |
| 1011. | The Sahib wants (has started ?)<br>to shoot pigeons.                               | Sāhib kür jāristhai dugā samrıss.                                           |

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| 1012. The (wooden) <i>pillar</i> of my<br>house is weak: I think it<br>will fall this year.                                             |                                                                                  |
|-----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| 1013. I have no pillow, so I can't sleep.                                                                                               | Potsantestā n'ess, õts pehuik<br>n' battam.                                      |
| 1014. Who is that man wearing<br>a pink shirt?                                                                                          | E manch <b>i sh</b> edrukral basnd<br><sub>_</sub> amjistai; ikiō kai nom essā ? |
| 1015. I don't smoke a <i>pipe</i> (tobacco).<br>I take snuff.                                                                           | Ōts tamkio n'k <u>s</u> hâtam ; naswūr<br>kunam.                                 |
| 1016. Who gave you that pistol?                                                                                                         | Ikiā drun tapē tū ko pta'shi ?                                                   |
| 1017. My goat fell into this pit<br>yesterday.                                                                                          | lễ gash dus ind the tấ luniss.                                                   |
| 1018. You have no <i>pity</i> on the coolies; and of course they dislike you.                                                           |                                                                                  |
| 1019. This place is unfit for <i>pitching</i> tents.                                                                                    | Inā bhīm jilamâ u <u>ch</u> asth less<br>n'ess.                                  |
| 1020. Our cattle are all dying of the plague.                                                                                           | Emâ gâo bogmā bradzoi dugā<br>mrittett.                                          |
| 1021. Widing is a <i>plain</i> (straight)<br>man, and does not lie.                                                                     | Widing shtal manchi ess, n'idel<br>assã.                                         |
| 1022. This plain is as broad as the plain of Mori.                                                                                      | Inā divarā Mori divarā prishta<br>wishtar ess.                                   |
| 1023. You have arranged an excellent<br>plan for crossing the pass,<br>and I am grateful to you<br>(shall reward and make<br>you glad). | Tū bado ptiwar esth dugã lesst<br>kaṭā; prētī tū ku <u>zh</u> ān kalom.          |
| 1024. Send two men to plaster the wall.                                                                                                 | Dū manchī inā châ oharesth dugā<br>samē.                                         |
| 1025. I want a metal plate: not a wooden platter.                                                                                       | Iãst dapil awizhess : pashku awizh<br>n'ess.                                     |
| 1026. The Kāfir boys play much games.                                                                                                   | Katõ parmër bilu <b>gh</b> mi <b>sh</b> ittett.                                  |
| 1027. The Chitrālis are fond of playing music (singing).                                                                                | Bilian manchi lālu kusth dugā<br>bilu <u>gh</u> ku <u>sh</u> ān asth.            |
| 1028. Your brother is a pleasant-<br>faced man.                                                                                         |                                                                                  |

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# English-Bashgalī Sentences.

| 1029. | If you <i>please</i> me, I shall give<br>you a bag of wheat.                                        | Tũ ĩ lẽ zānchībā tū sẽ tấ gum<br>prēlom.                                         |
|-------|-----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| 1030. | We will go to-morrow, or next<br>day, as you <i>please</i> .                                        | Dalkië etimish, attri etimisha, to<br>chitt.                                     |
| 1031. | Please decide the day for start-<br>ing on the journey.                                             | Tū lattrī giats ; tū ēsth dugā starak<br>mataks <u>h</u> i.                      |
|       | The harvest is bad; but grass<br>is <i>plentiful</i> this year.                                     | Starak sē katī digar ess ; yūs inā sē<br>biliuk ēss.                             |
|       | The iron of my plough is<br>broken! What shall I do ?                                               | Iã ashu barā tā pol pețangess ! kai<br>kalom ?                                   |
|       | The ground is frozen : it is no good to plough now.                                                 | Bhim shë tin ess : ashu bara n'ais-<br>chitt.                                    |
| 1035. | Pluck and bring those yellow<br>flowers under that willow<br>tree.                                  | Iktā pkūsh pgūro riti pish peļi giats.                                           |
| 1036. | The <i>point</i> of your sword is not sharp (has not an edge).                                      | Tū tarwoch chur psio n'ess.                                                      |
| 1037. | I don't see the enemy's horse-<br>men; point out with your<br>finger and show me where<br>are they. | O pachanwari ushp sir manchi<br>n'warentam; kor asht angur warë<br>warö.         |
| 1038. | Some one gave my dog <i>poison</i> ,<br>and he died this morning.                                   | Gi <u>sh</u> ē manchi-e iā krūi wi <u>sh</u> ptēss,<br>starak piā <u>sh</u> mṛā. |
| 1039. | Kāfirs don't play polo.                                                                             | Katā manchi parchev n'mishittett.                                                |
| 1040. | There is not even one polo<br>ground in the Bamboreth<br>valley for playing polo.                   | Mamrēt ē dī brun n'aissht parchev<br>mishisthai dugā.                            |
| 1041. | Pomegranates are good to eat<br>when you are thirsty.                                               | Koi do pig bibā amārts pits (pisth)<br>lesst butt.                               |
| 1042. | I think the ducks will light on the pond.                                                           | Ots babdī kehātam jallai nilē tā attu<br>prēlā.                                  |
| 1043. | I want a <i>pony</i> , not a big horse ;<br>for the road is bad.                                    | Iã dugã yābū giats, ál ushp n'giats;<br>pott digar ess.                          |
|       | We are very poor; we have no money.                                                                 | Emá bilugh garib manchi assumish ;<br>paisa n'wâttettamish.                      |
| 1045. | The poor are much afflicted<br>by the high class men.                                               | Ål manchi nālus warlān bilugk digdr<br>kuttētt.                                  |
|       |                                                                                                     | Co                                                                               |

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Tarak kano sirētā buttett : Shdrāl 1046. The poplars grow on highlands; Chitrāl is low and shor assā, and n'buttett. they won't grow there. 1047. The fast (Ramzān) is over; it Pochētr paoshā; namáj biss; amni is the feast day : the people manchi assalâ uchasth dugã are assembled for shooting wasanzistai (assalâ tapkiē wisth at the popinjay. dugā wasanristai). Dalkie piash okra ashurālom : ktol 1048. I will est porridge to-morrow morning; I have a stomach bradzott, ano n'yūlom. ache, and can't eat meat. Inā gum sē tā shtowa bitta kshi : inā 1049. Divide the bag of wheat in barwai yo chok prē. four portions : give one portion to each coolie. 1050. The head man of this village is Inā bagrom urā bilu<u>ak</u> al ktol-wā become very portly (large a.88ā. belly). 1051. The sepoy has forgotten his Spāhi pamu dorinot pmishtēti āyā. pouch in his house. Pashku tā zū ptol tā atiosh ; pashku 1052. Pour out the milk from this ewer into the pot, and fill in zū piol āo parī kshī. water instead. 1053. I have left the powder for my Tapik dugā pamu dorī pmishtētī gun in my house. āvosam. 1054. Why can not you go? You are Tū kyā n'ē banji ? tū damtol manchi a powerful man. a<u>sh</u>i. 1055. The coolies make praise of the Barwai Ohārwēli-ē dugā wari kuttett Chārwēlo saying "he is a "bilu<u>ah</u> âl bidi-wā manchi ess" very great hearted man." kuttett. 1056. This is the fast month: you Inā pochētr ngusth mos assā; eo gujarë poch wor namåj kusth should say your prayers five times every day. less. Iendâ (ien ta) namâj kshi. 1057. At the time of going, make prayers. 1058. Yesterday I said my prayers Dus ponj wor namaj krā. five times. 1059. To-day we shall travel much; Shtrak bilugh wichamish; namaj n'kummâ. we shall not say our prayers.

#### ENGLISH-BASHGALI SENTENCES.

1060. Yesterday I became very tired:

- I did not say my prayers. n'kaŗā. Ōts wischio assum ; wischio dugã eo 1061. I am a traveller; neither to make prayers five times a day nor to keep a fast is .necessary for travellers. n'ess. 1062. That precipice (or built up Ikia untiwa biluah chikur assa; pari) is dangerous, and you tä pë n<sup>3</sup>balosh. cannot cross it. 1063. Yesterday I gave you a present Dus tu ta e tang mihrbani karsish: of one rupee: to-day I am angry with you and won't tū kai na prelom. give you anything. 1064. In the present year on account Starak se sim le ba yus le ba. of a good snowfall there is much grass. have patience ! I am 1065. You coming presently; I forgot achok kudām p'mishtiss. (I have) a little work (to do first). Shër Malik sodāgarā tā stē biliuk 1066. Shër Malik has brought some shingara basnâ kor awarā. very pretty clothes from the merchant (made and brought). 1067. Previously to starting don't drink much water or milk. sū di na pi. 1068. You have paid too long a price Tū ikie badiena dugā bilu<u>ak</u> marī for that cloth. ptā. Sundi Kato gram e utah ess. 1069. In every Kafir village there is a chief priest. (T) 1070. The high priest is a man of
- considerable possessions.  $(\P)$
- 1071. The chanting priest sings very well. (¶)
- 1072. The prince's age is twelve years.
- 1073. The princess' age is ten years.

- Dus biliuk gatrabamish : namåj
- gujarë poch wor namaj kusth dugā pochētr ngusth dugā sarur
- starak gujr tū tā kapā bissum,
- Tu mātā kshī ! ots epos dikti atsalom;
- Koi samarij bâ pani<u>sh</u>r do di na pi

Utah bilugh lattri-wa ess.

Debilāla biliuk lē lālu kul ess.

Mehrkruē dits sē biss.

Kunzā jūs dots sē biss.

| 1074.   | The prince has killed with his                                                                                                        | -                                                                                                                         |
|---------|---------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
|         | own sword all the <i>prisoners</i><br>on the polo ground.                                                                             | b'brunz-0 pagūro amo tarwochī<br>mē <u>sh</u> witī jāristai.                                                              |
| 1075.   | My horse is hungry: produce<br>corn for him.                                                                                          | · · ·                                                                                                                     |
| 1076.   | Produce the clothes which I<br>left here yesterday                                                                                    | Dus iä basisna anto pmishtiasst iä<br>b'doi giats.                                                                        |
|         | You promised you would give<br>me one rupee.                                                                                          | Tū iã tã ē tang prēlom krās'm.                                                                                            |
|         | I have no <i>proof</i> that this is my blanket.                                                                                       | Inā jil iāst assē, warants assē, tinch<br>n'bā.                                                                           |
| 1079.   | All my general property and<br>household property was<br>burned by the enemy.                                                         | Pachanwarië iāst sang lattri tūrsūn-<br>lattri <i>lu<u>sh</u>tiā</i> .                                                    |
| 1080.   | Thou art too proud (a man who<br>knows no one): I think you<br>will surely come to grief.                                             | Tū ko kai n'chamol (?) (jānrl?)<br>manchī assish: õ purjițam tū<br>digar bulosh.                                          |
| 1081.   | My servant reports he has got<br>all <i>provisions</i> ready for the<br>journey.                                                      | Iãst <u>sh</u> odr gijji kutt "putt dugã<br>sang ya <u>sh</u> wottestai" kutt.                                            |
| 1082.   | I want pubboos for journeying<br>over the snow : boots are too<br>unyielding and slip much.                                           | Zim tã pilmgisth watså iā dugā<br>giats; boot dangu buttet silki-<br>ottett.                                              |
| 1083.   | Sir ! Tauchins are better than<br>pubboos for snow; but take<br>care they be soft.                                                    | Sāhib! wats <b>ā</b> tār pagur palāno<br>lesst buttett ; aī <u>sh</u> kshī chil būn <b>d</b> .                            |
|         | My white <i>pugri</i> is become<br>dirty with the journey.                                                                            | Iãst kazhir shar pilingasth tã mul<br>biss.                                                                               |
|         | Go to the munshi: ask for ten<br>men to pull this beam.                                                                               | Munshi tār ī: dots mõ <u>sh</u> ugrē<br>k <u>sh</u> osth dugā welī kshī.                                                  |
| 1086.   | We don't eat <i>pumpkins</i> , as it<br>is not our custom. Our<br>parents never eat <i>pumpkins</i> .                                 | Emâ ālo n'yūmish chor ness. Emâ<br>non dī tott dī ālo n'yūlai.                                                            |
| 1087. i | Sir! this man came and cut<br>my pumpkins by night.<br>Give him severe <i>punishment</i> ,<br>so that he shall never thieve<br>again. | Sāhib! ikiā manji radur iāst ālo<br><u>sh</u> tāraktī pē <b>tī</b> briss. Ikiā less<br>kati wi, di s <u>h</u> tār n'kulā. |

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- 1088. You are a thief. I will punish (beat) you.
- 1089. That man tells many lies. Punish him.
- 1090. Last night a thief came and took off my purse; if I catch him, I will take away his life.
- 1091. I purposely left a dog outside the house, in hopes a leopard will come, and I can shoot him with a gun.
- 1092. Look! The enemy has fled. Get together all the horsemen of the village to pursue him (or, we will pursue him).
- 1093. Why are you pushing me? If you push me, I will do for you.
- 1094. Put this walking stick in my house.
- 1095. My arm aches. I can't put on You put them my clothes. on me.
- 1096. Puttees are good for riding in.
- 1097. In my country boys began to wear pyjamas at ten years of age.

- 1098 My horse is caught in a quagmire. Get four men to pull him out.
- 1099. Quails are very good to eat; but we can't catch them.
- 1100. There is a quantity of stone Ani wott lé ai. here.

- Tū shtar assish. Tū wilom.
  - Ikiā manchi bilu<u>ah</u> mishott. Ikiē vi.
  - Dus radur shtär atti i kaltacha brā; ashīā shtalē wanomalom shion (jion ?) nuksalam.
  - Öts purjiti krūš amu beru nachiess ; shtale jut askie gaiesth duga atsalā, iā tapkiē witi jārlam.
  - Ōsh kshi! Pachan wari mukiā. Bagrām sundi ushp-wari manchion wasanrō pachan wari tibar esth dugā (tibar emā).
  - Tū iā kai dugā oren vich ? Tū iñ oren vichibå ö tu järlam.

Inā maroi iā pamu ūto.

- Iā doi bradzott. Basnā amji n'bat. tam. Tū amjio.
- Paito ushp sir nishishth duga lesst ai.
- Emå watan tä dots se bista marir taman amjittett.
- *Iã ushp* shur tār woshchiss. <u>Sh</u>towa mõch ukshosth duqā gaiets.
- Yusth dugā kraīru less; emā damē n'battamish.

- 1101. Why dost thou make a quarrel tū tā utili n'buttam. with me? I don't wish to quarrel with thee. 1102. Some one has caused these two brothers to quarrel. kariyā. 1103. You are a very quarrelsome Tu bilugh rara-wa manchi assish ; man; I'll take you before tū kāzī tār ngālam. the Kāzi. 1104. I have heard the Queen is very Iā p'kor gwā kunzā bradzo wā assi ; ill, and possibly will die toshtalë starak gujr myli. day. 1105. Why do you question me? Do Tu ia kai kudoch ? Tu purjitisha õ shtär assuma ? you take me for a robber? 1106. You go quickly and fetch the Të sapsip tapip gyats ! O mretam. doctor! I am dying. 1107. Don't you go too fast; there is a quicksand in front of ess; tu tikhēlosh. you; you'll be caught. 1108. Take care! Be quiet! you talk too much.
- 1109. I am very poor; I have no auilt.
- 1110. You say everything quite true.
- 1111. I quitted my stick. Let it be! I don't need it.
- 1112. In my quiver is not even one arrow; how can I fight ?
- 1113. Look ! my father plays quoits very well. (¶)
- Tū sang warī puruketi walach.
- Ia manoi nacheti ossum. Pisbilliē ! kai ūd n'ess.
- Iā shtur tā ē di shūr n'ess ; kaikoti pshiman ?
- Aishkshi! Id tott bilugh le aluta kutt.

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- 1114. These two brothers are racing Amnie du bra ushp shigiottett. their horses.
- 1115. The rafters of my house are weak; I fear they will fall.
- 1116. My cloak has become ragged; I have no money to buy another.
- la amu pelingiati pețanlese ; õ wezhanam witlalt.
- Iā shugā yātsā biss; wārē shugā ngüsth dugễ iễ tả tang n'aissht.

- Tū kai dugā iš tā utili buch?
- Kāchi manchi amni dū brāson kellē

- Tū achānam n'ai; tū panishr kadr
- Tarāchi bo / chusht osh ! tū biliuk wari walach.
- Ots kai no-wā assum ; spio n'ess.

- 1117. In these days rain falls, but Starak agal prētt, sim na prētt. not snow. 1118. If it rains to-morrow, I can't Dalkië agal pittabâ Dryusā na go to Drösh. balam. 1119. If rain falls, I shall not go. Agal biba n'aim. 1120. If snow falls, I shall stay here ; Zim pittabâ ani otim ; agal bibâ (but although) rain should ēlom. fall, I shall march. 1121. There is a big rainbow to-day, Starak gujr indrön chi ptess; dalkið agal n'allon ö purjanam. so I don't think it will rain to-morrow. 1122. My ram has eaten some poison Ia maghurala pson p'mich wish iārs : õ purjonam mŗlā. in the woods and must die. lā gul tā tapī waktā īts (rīts) 1123. In the summer time bears are very rare in my country. bilugh chāk asht. 1124. In Badakhshān I rarely saw Badakshän bilugh achok wokta any camels. shtur warjām. 1125. In winter the rats (big mouse) Ziwör âl muzzā şundi end. n'ess korē endabâ. all go away. One doesn't know where they can'go. Iā yost achen ware ösh kra ikye 1126. I have seen with my own eyes that the enemy is hidden in that ravine, as an ambuscade. · 1127. This chupatti is raw; why Inā buri zhilli ess; tū kai dugā have you not cooked it? n'dai ess ? ząpp dajō. Cook it immediately. 1128. This meat is underdone (raw), Inā ano nā karch ess, iā shotik
  - but it is not my fault, there is not fire enough.
  - 1129. The Bashgalis say it is not good for men to read books. Priests should read books, and no one else.
  - 1130. Why are the coolies delaying? Why are they not ready ?
  - 1131. What is the real reason why the Charwelo won't give coolies ?

- Tinch
- păr pachanwari bizul attā bistai.
- n'ess, angā n'ess.
- Katā manchī gijjī kund manchīon dugā parhi õ<u>sh</u> kusth dugã (parhi walan) lesst n'buttett. Mulla parhi walesth duga lesst buttett, wärä lesst n'buttett.
- Barwai kai dugā mātā bistai (drē kund)? Kaikotē tyor n'aesht?
- Shtal vari kshi, Chārwēli kai dugā barwai na prētt?

#### ENGLISH-BASHGALI SENTENCES.

- 1132. Do you really go to Chitral tomorrow?
- 1123. My crops are destroyed. There is no-one to reap my wheat.
- 1134. What is the reason of your going to Asmār to-morrow?
- 1135. All the men of Kāmdē<u>sh</u> have turned *rebels*, and ejected the priests, and have killed some.
- 1136. Have you received your pay? I have not yet received it, for I shall receive it after a month.
- 1137. Don't go near that swamp and those *reeds*. I think the enemy may be hidden among them.
- 1138. My roins are broken; get a needle and fine thread to sew them.
- 1139. My relations by marriage and my blood relatives have all fied from Asmār for fear of the priests, and have come to Bragamatal.
- 1140. I am solitary and have not one relation.
- 1141. The Mahomedan *religion* is very hard : (I can't see) what is the use of keeping a fast.
- 1142. The fire is gone out; relight (or rekindle) it.
- 1143. I will go a little ahead to look for the enemy. *Remain* thou here until such time as I come back.

- Tū dalkiš Shtrāl abtalš ētishiā (ēnjā)?
- Iā ptul digar bistai. Gum urusth dugā eo dī manchī n'aesht.
- Tū Parish kai dugā dalkiš ētish (ēnji)?
- Kāmdēsh sundi manchi yagi bistai, sundi mullā tur azhā, ackok mullā jāristai.
- Tā mājib vrāghuttasā? Starak na vrāghuttus; ē mōs ptiwar vrāghalam.
- Tü iki shur naşaki drigri yüs tawarð n'ai. Ö purjonam pachanwari ikiā p'mĩsh attā bistai.
- Iā ushp ashī bradsī peţangess; chimchich lamŗ pachen gats shusthē dugā.
- Emå psür dar omå'st sundi tött brå mullä dugä widhorti Parish stö mukti gwä. Bragamatal osthai.
- Ots' kūr assum; iā kāchš zotr n'aiss<u>sh</u>t.
- Muzzulmān dīn bilugh zur ass: pochētr ngūsthabá kai faidā butt?

Angā yassa ettā ; pashāo.

Õ achok panishr balom pachanwari õsh kush dugã. Iã kui atsir wik tü anio nighē.

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| 1144. Alas! one of my coolies has<br>romained behind; he has<br>not turned up; I fear the<br>enemy will kill him.                                                       | Uterestā ! Iāst eo barwai ptiwor<br>utin ess; n'ais; õ widernam pa-<br>chanwarī manchī barwai jārlā.                            |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| 1145. Take away the remains of that meat.                                                                                                                               | Ikīā ano uttā bistai ngātī gyē.                                                                                                 |
| 1146. Take this cloth and make me<br>a pair of pyjamas; then<br>bring me the <i>remains</i> of the<br>cloth.                                                            | Sõn gyē taman k <u>sh</u> ī ; uttā bistai sõn<br>giats.                                                                         |
| 1147. If it snows in the morning, we cannot get across the pass : there is no <i>remedy</i> (no power; it can't be helped).                                             | Dalkië yaz <u>h</u> ī-wēl tā zīm afziā bado<br>shai putrē n'bamā; kot n'ess.                                                    |
| 1148. Certainly you gave me the<br>order yesterday. I have<br>not remembered. Forgive<br>me and don't be angry.                                                         | <u>Sh</u> talē tā dās hukm ptā'm. Iā<br>babdi n'azziā. Mātā k <u>sh</u> ī: kapā<br>n'bō.                                        |
| 1149. What do you request? You<br>requested something yester-<br>day and I gave you one<br>rupee, and now again you<br>request something; I won't<br>give you anything. | Tü kai ragach ? Tü dus kai lattri<br>raganasuch. <sup>®</sup> lä tü ö tang ptä'sh,<br>starak di ragacha ? Õ tü kai<br>n'prölom. |
| 1150. The Chārwēlo enquires how<br>many coolies does the officer<br>require, and for how many<br>days does he require them?                                             | Chārwēlī kudāt Sāhib chē manchī<br>ragat, chē wōs dī katī ragat?                                                                |
| 1151. Chānlū and Mirak resemble<br>one another.                                                                                                                         | Chấlā Mirak ē purstha ai.                                                                                                       |
| 1152. My dog resembles your dog.                                                                                                                                        | Iã krũi to krũi erang'st aaht.                                                                                                  |
| 1153. Asmār is a good place : I shall<br>reside here four years.                                                                                                        | Parish lesst gul assnī; Õts shtowa<br>sē anš nishilom.                                                                          |
| 1154. The Mehtar does justice, there-                                                                                                                                   | Mehar esop kutt, ikiā dugā meh-                                                                                                 |
| fore all the subjects respect him.                                                                                                                                      | ar'st shodr sundi adap kund.                                                                                                    |
| 1155. They are <i>respectable</i> people in that village; and neither very poor nor very rich.                                                                          | Ikiā bagrām manchi brōb <b>ar</b> manchi<br>asht; bilugh lattri-wā di n <sup>°</sup> asht,<br>bilugh kā-no-wā n°asht.           |
| • The syllables anas appear t                                                                                                                                           | o be introduced for euphony.<br>Digitized by GOOGLE                                                                             |

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- 1156. The Charbū of that village is not at all *respectful* (good doer): he should be punished.
- 1157. You are tired. Rest a few days in my house. What time you are rested, you can go.
- 1158. It is a good plan to rest one day in every five days.
- 1159. We shall stay in this village for the sake of some rest.
- 1160. In this business what *result* is before you? Even if you kill the Chārwēlo you will never become Chārwēlo.
- 1161. After seven days, I shall return, and I will at that time return to you your cloak.
- 1162. I go towards Asmār and I will never return. Good-bye (may you keep well).
- 1163. The head man has taken all the revenue of this village, and says the villagers have paid none to him. He is a great liar and rascal.
- 1164. If you find my cloak which fell on the road yesterday, I will give you a *reward* of one rupee.
- 1165. My rezai (of my bed) is very old.
- 1166. Whenever it rains, I get *rheumatism* in my right arm and left leg.
- 1167. This year there is much *rhubarb* on the hills; it is very fresh and nice for men and goats to eat.

- Ikiā bagrām uru manchi dugā lesst kul n'ass : ikiā visth ass.
- Tū gatrā bissis<u>h</u>. Tū dū troi wōs iā pamu wigiō. Tū kui wigiā i<u>zh</u>ībā.
- Poch wos ta e wos ozhamesth less ass.
- Ozhamesth dugã inā bagrām mĩ nizhēma.
- Inā kudūm p'mīš<u>h</u> tū kai wari ess? <u>Sh</u>talē tū Chārwēli jārlosh tū Ohārwēli n'bulosh.
- Sutt wös ptiwar pilingiti atsalam, askē wös tā tu'st shugā tū tā wā prēlom.
- Parish por ennom. Kui di në atsalom. So-enji.
- Ikiā bagrām uru sundī shom ngutastai, warī kuttett "ikiam bagrām manchī shom ĩ na prēttett." Bilugh mishāl mishott; bilugh digar manchī ess.
- Iā shugā dus p'putt atteliss: tū awēloshbā ē tang gian prēlom.

Iā spī bilugh sium biss.

- Kui agal yür onzibâ pachütr dusht tã kũwar chū tã wai prēttett.
- Inā sē bado radsa bilugh ess; manchīēn sharon dugā yusthē dugā lesst ass,

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- 1168. In my valley there is a quantity of wild *rhubarb*, rok,<sup>\*</sup> khozla, kalor, and badrai. (¶)
- 1169. A stone rolled down the hill, hit me on the *ribs*, and knocked me over.
- 1170. My rice orop is very good this year and there has been a large quantity of rice produced. There is more rice than Indian corn this year.
- 1171. Thou art a *rich* man and I am a man of no account.
- 1172. You have much riches, cattle, goats, and coin, but I am a man of no account.
- 1173. I don't know how to ride, as my house is in the mountainous countries, and there are no horses there.
- 1174. Chānlū is a very good rider, but probably can't climb
  hills like me (having done like me on hill cannot go).
- 1175. You lie! why do you demand two rupees? Your right (due) is only one rupee-
- 1176. You are a fool. Why don't you know your *right* hand from your left?
- 1177. I went to the merchant to buy a ring. He says they have not come from Peshāwur.

- Emå b'gul bilugh sabhu, rok, khosla, kalor, badrai asht.
- Bado stë wott yür aiyo; iā tā pachukru praptā, öts piltiāo.
- Inā sē <u>shālī</u> bilugh lesst ess, mā bilugh paidā bolā. Inā sē jowār tā mā bilugh ess.
- Tā lattri-wā manchī assish, ots kai no-wā assum.
- Tū tā bilugh lattri asht bilugh gawā (gåo) asht, bilugh dizhē asht, bilugh tang asht; õts kaino-wā assum.
- O ushp p'sir nizhisth nā jān; stam; iāst amu atūr ess, akī ushp n'ess.
- Chālū lesst nshp p'sir nishel assā, shtalē i purstha katī pashū tā š na batt.
- Tā mishochī ! Tā kai dugā dā tang wagachī (ragachī)? Tā tā ē tang atsilī assā.
- Tū charrā assish. Tū pachūtr dush kūwar dush kaikotā na jānretish?
- Angushti ngüsth dugã saodāgar tã güssam. Saodāgar gijji kunn "angushtiēn Peshár stē n'āyā" kutt.

\* These are all vegetables which grow wild on the mountains and are good for food. Their botanical names are not known. Badrai, in Chitrali, is rendered by simmon.

- 1178. The fruit is *ripe* in Drösh but in Chitrāl it is not yet *ripe*, because cold winds prevail there.
- 1179. The apricots don't ripen this year, for there is no sunshine. I fear they never will ripen.
- 1180. *Eise* why don't you rise? I have awoke you (caused to rise) three times : the sun has risen, and is clearly visible.
- 1181. Cross the pari (or built up precipice road) by all means (there is no fear); if you go close to its edge, there is a risk of your falling (I fear you will fall).
- 1182. The river is very full of water.
- 1183. In summer there is not a ford in this *river*; owing to snow melting, the water reaches up to your chest, and sometimes up to the neck.
- 1184. The road is good. There is no cornice (built up road) hetween Drösh and Gairath. A donkey can go; perhaps a horse can go, but a camel cannot go.
- 1185. Roast this bit of ram's flesh for my three coolies.
- 1186. Chānlū has robbed five rupees from Mirak.
- 1187. That is not the case. Mirak is himself a robber, and is too wideawake to allow Chānlū to rob even a stone from him.

- Dryūs kachwach pagistai, <u>Sh</u>drāl starak wik n'pagistai, ikiā dugā akī bilugh yūts damu u<u>sh</u>tett.
- Inā sē yūr na ess, ikiē dugā sori na pagann. Ö babdi kshātam kui di na pagalā.
- Uahta! Tū kai dugā n'otich? Troi wõr tū ntēa<u>sh</u>: sū ptī, lesst waron ett.
- Ushtiwā tā pēr ī, kai widerasth n'ess ; õ wideram tū pachūrē ēlosh tū piltilosh.

Gologh (gol ugh) bilugh ess.

Wazdur inā b'gal tā ē di tūr n'ass; kui zīm vilnabā do pa chuk wik bibā, kui b'garak piu butt.

- Putt lesst ass. Dryus stē Gairath p'mīsh ē di ushti n'ai. Kur wēl ass; shtalð ushp wēli, ushtar na wēli.
- Inā parmenstuk mazharlē ano pachö iāst troi barwai dugā.
- Ohãlū Mirak stē pō<u>oh</u> tang <u>sh</u>tär kŗistai.
- Inā warī tich na bunn. Mirak mā <u>sh</u>tār ass, bilugh kshūl manchī ess, Chālū Mirak, stē ē vott dī ngā n'batt,

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#### ENGLISH-BASHGALI SENTENCES.

- 1188. Yes, you say what is true. Mirak is only a thief, but he is not a fine *highway robber* like Basti !
- 1189. In the spring that big white rock will surely roll down the hill some day, and kill some-one.
- 1190. Don't let my horse roll on the ground, my saddle will break.
- 1191. The timbers of the roof of my house are very strong and will last until five years.
- 1192. How many rooms are in your house ?
- 1193. The root of that tree is as long as two men.
- 1194. My rope is broken. What shall I do? How can I carry the load without a rope?
- 1195. The rose is the prettiest of all the flowers, and its scent is very nice.
- 1196. There are many dog-rosss (?) in our valley, but no other roses.
- 1197. Chānlū is a rosy faced man, but Mirak has a very dark countenance.
- 1198. The beams of my roof are all rotten, and I fear it will fall some day.
- 1199. My clothes are very rough; your clothes are very soft (thin).
- 1200. The road between Drösh and Bröz is very rough.

- Tū shtalð walanch. Mirak shtär assā, Bastī bröbar damtöl p'putt lattrī ngalā n'ass !
- Wosut wokt askā kazhīr ál võtt badō pagiōr kui dī atsalā, ko manchīān jõrlā.
- Iā ushp b'bhim piltisth dugā n'otē, iāst zin pereng ēlā.
- Iā pamu pkrum urgru bilugh lesst asht, pēch sē wik lesst bunn.

Tũ pamu chẽ amo ai?

- Ikiā kāno lā dū manchion pashē drgr butt.
- Iāst kanik perongā; kai kulom? Kanik n'ess, kaikotē bor ngālam?
- Shū sundī pīsh tā shingierai azz, ikios't gun di lesst butt.
- Iā b'gul tā tarī pish bilugh asht, wārā shū n'aissht.
- Chalu gum purstha manchi assā, Mirak <u>zh</u>ī kor manchī assā.
- Iā pkrum argru pkhul asht, widernam kui wos tā vitleli katī (?).
- Iā bazisnā bilugh chil asht; tū bazisnā bilugh turungo asht.
- Dryus stē Brus p'mishu putt bilugh digri ess.

- 1201. The Commissariat ghi boxes are square; the kegs of spirits are all round, so don't you make any mistake.
- 1202. When you travel to Broz, go round by our village.
- 1203. Why is my horse rubbing its mane? I think it must have mange.
- 1204. I want a rug, and a numnah, and a carpet, and a goat's hair rug (Chitrālī "pilisk").
- 1205. I shall ruin you, as you have disobeyed the Mehtar's orders.
- 1206. Here used formerly to be a village, but now only *ruins* are left.
- 1207. Two men have run away (fled).
- 1208. I cannot *run*; last year, when going down hill, I fell and broke my left leg.
- 1209. The enemy have all run away, carrying all their own property and leaving one old man only.
- 1210. I will give you one rupee.
- 1211. I will take eighty Kābulā rupees or fifty Indian rupees for this horse.
- 1212. Rushes are visible there, so I suppose there must be also water near them.
- 1213. The *rust* has destroyed my sword. Rub it with sand.
- 1214. In the *rutting* season you can kill five markhor in a day.

- Commissariat ano adar shtowa ptiwā asht; tin pā sundī pandur asht, tū nmēlī n'ngā.
- Tū kui Bruz gujbā emā pamu pabanūr gitī ī.
- Iāst ushp kai dugā maroik dro changrott?  $\tilde{O}$  purjonam ikšo tā arna biss.
- Iā kalin, spī, zalimcha, shūr p'kār ess.
- Tū Mehar hukm n'ragattā, tū tor azhēlam.
- Shangyē zamāna tā anio grām azsi, starak zanzīr biss, wārā n'aiesth.

Dū sai mukiā.

- Õst achūn na banam; põ sē badõ pagior yũr enassam piltiām kõwar po pūptā.
- Pachan wari sundi mugistai, sundi yost lattrī brī; ē purdik ptiwar utiness, wārā kā dī n'aiesht.

Ots tu ta e tang prelom.

- Inā ushp dugā shtowa vissī zamāni ngānam dū vissī duts angrēzī tang ragalam (ngānam).
- Akī noll waron sttā; õ purjittam akīo tawarē do dī assā.
- Teamar iã tarwach digari kriss. Tsū warē pilsō (marmarī k<u>sh</u>ī).
- Epor bibā ē gujar p'mīsh poch shāru jār bashā.

## S

- 1215. To-day is my Sabbath (i.e., day of rest): I am not going to work. (¶)
- 1216. Get me a *sack* and fill it with barley or wheat.
- 1217. You appear very sad to-day; have you lost all your goats?
- 1218. My saddle is very big and heavy; get me a smaller saddle.
- 1219. Saddle the grey horse. I will let the black horse rest today.
- 1220. The saddle cloth is very old and not fit for a Chārwēlo.
- 1221. The cornice is *safe* this year. The Mehtar ordered me to set it right.
- 1222. For the sake of my cow bring a handful of barley : but if you fetch two handfuls it will be better.
- 1223. All the salt for our valley comes from Peshäwur.
- 1224. Saltpetre is very prevalent in this valley.
- 1225. Get a bit of cloth the same as this for making a shirt.
- 1226. There is much sand near the river.
- 1227. Ever since the water fell, some logs of wood are stranded on the sand banks.
- 1228. There are very few sand flies this year because of the winds.

- Starak agar ess: kā kudūm na kalom.
- Iā dugā ē būjē gats; kā rits kā gum būjē tā parē k<u>sh</u>ī.
- Starak tū bilugh kapā bissish ; tū sundī dizhā pus bistai ?
- Iā zīn bilugh al dī assā gānowā dī assā; parmenstuk zīn giats.

Kazhīrī ushp tā zin ptitē. Ots starak zhī ushp wiālam.

- Zin p'tsir bazisnå siūm biss, Charwēlī dugā less n'ess.
- Inā sē ushtiwa lesst assā. Mehar hukm ptāsam-ish ikyē lesst kshīr.
- Iã gâo dugã e gor rits giats : shtal yamna gor awarbâ lesstabalā.
- Emâ b'gul dugã sundi shuk Peshâr stë afziā.
- Inā b'gul tā kazhish bilugh asht.

Taman kusth dugā ē achok basnā ikyē basnā pursth gails.

- Po chiwol tã tsu bilugh assa.
- Kuī stē do chok biss bā, do p'mich bdiwerr gãr utinā.
- Inā sē damu bilugh ushtett, ikiyā dugā kishu (?) bilugh chāgh asht.

| 1 <b>4</b> 4j.   | sharp to make a sangar                                                                                                    | Bangut tyor kusth dugā sundi<br>manchio zapp wasanŗā.                                                                    |
|------------------|---------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
|                  | (breastwork).                                                                                                             | · · · · · · · · · · · · · · · · · · ·                                                                                    |
|                  | Fetch twenty saplings and put them into my ground.                                                                        | Vissi kanjik awēti i b'bhiom ptē.                                                                                        |
| 1231.            | I have inspected your work<br>and am satisfied with it.                                                                   | Tū kudūm õ <u>sh</u> karsā, bilugh kuzhān<br>assum.                                                                      |
| 1232.            | You are eating a lot. Are you<br>not satisfied yet? Why<br>don't you rise and wash<br>your hands?                         | Tū bilugh burī (anjī) yūchī. Tū<br>ktol n'karsā? Tū kai dugā<br>n'utinshess? Kai dugā dush<br>n'dariss?                  |
| 1 <b>233</b> . 1 | Everything has come in, but<br>they have not brought the<br>saucepan; I fear it dropped<br>on the road.                   | Sundī lattrī osth, chindor<br>n'awērā; widarnom p'putt tā<br>atlon gwā.                                                  |
| 1234. '          | The carpenter has an axe and<br>hammer; but says he never<br>even saw a saw.                                              | Dār-sellē tā pedri assā, kushtun di<br>assā; gijji kutt õts kui ehiao<br>n'warins.                                       |
| 1285.            | What do you say? Speak<br>loud; speak slowly; and<br>each word separately and<br>clearly, or I can't under-<br>stand you. | Tū kai mãrechī? Kāgrð walō;<br>chillõ walō; yo nirikõ warī k <u>sh</u> ī;<br>lesst katī walō; õts tū warī<br>n'purjitam. |
| 1236.            | The Chārwēlo says he (the man) is sick.                                                                                   | Chārwēlī bradswaio kuttā's.                                                                                              |
| 1237. /          | The scabbard of my sword fell<br>yesterday and is lost.                                                                   | Iãst tarwách wui düs atlongai;<br>puz biss.                                                                              |
| 1238. /          | The Commissariat scales are<br>not understood by us and<br>we are robbed in conse-<br>quence.                             | <b>Emû m</b> anchiān Commissariat tar-<br>ja ni <u>zh</u> ān na jānŗa <b>mi</b> sh, ikiā<br>dugā psotr.                  |
| 1239. '          | There is a scar on his hand<br>and a scar on his face.                                                                    | Ikyē b'du <u>sh</u> pror ni <u>zhān</u> assā;<br>p'miok dī pror ni <u>zh</u> ān assā.                                    |
| 1240. '          | This year mulberries are very<br>scarce : more scarce than<br>last year.                                                  | Inā sē marach bilugh chogh asht:<br>pō sē stē chogh asht.                                                                |
| 1241. ]          | In my field erect a scare crow<br>(a dead man's figure) at the<br>sight of which the birds will<br>flee away.             | lã ptul p'mich manchi bmrisht<br>nizhān kshī, marangats askī<br>õ <u>sh</u> ktī mugulā.                                  |

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- 1242. The scent of the dog-rose is nicer than the scent of the flower of the apple.
- 1243. The scissors of the tailor are so blunt they won't cut cloth.
- 1244. Scorpions go somewhere in the winter. Would to God they would not return in summer!
- 1245. Send two men to scout, and give them orders to stay on the road till evening (sun down).
- 1246. I saw him scowling and I am sure he is my enemy.
- 1247. The old woman is screaming from fear of the thieves.
- 1248. The seam (?) of my choga has become undone.
- 1249. Go and search in the village for a ladder, and I shall myself go shortly to search.
- 1250. This is not the season for fruit to ripen.
- 1251. He came secretly by night to my house and took away my coat.
- 1252. I am blind and I saw (see) nothing last night when Mirak came.
- 1253. I have sown the seeds, but not O bhim ta bi ajissi, i di na wo ass. one has sprouted.
- 1254. It seems to me they are all  $\tilde{O}$  purjinam sunds phhulā bā. rotten.
- 1255. Have you seen Kabul? No, I have not seen it, but my father saw it.

- Parr pish gun ta tari pish gun lesst ass.
- Basná shul trútsan sali duru biss, basnâ na pețann.
- Ziwör upoh kör ettabå. Imrā wiedör di upoh n'awelonn !
- Dū manchiān namō shū kudosth dugā : amki manchian hukm prē sai yür wik p'putt nizhēlā.
- lā iklē manchī wariām mick andhr kunn: õ purjanam iäst pachanwari assa.
- Wai pubi kutt: shtär duga bilugh widarett.
- Iast shuga wishn biss (?).
- Tū prēts b'grām p'mich chik ösh kshi (ðshē) ö di ðsh kusth dugã zapp anam.
- Inā kajwaj pagasth dugā wokt na 888.
- Ikiā manchi rador chille atti iāst shugā brā.
- Ots kar assum; kui Mirak ossabā iã kā dī n'wariām.

Tā Kābul warian? Ĩ n'warins. Idei tott warians.

| 1256. Go to the village and seise six horses by force. | Ikyē bagrom i; <u>sh</u> u ushp vrangāti<br>giats. |
|--------------------------------------------------------|----------------------------------------------------|
| 1257. He says he sells clothes Only                    |                                                    |
| and does not sell cooking                              |                                                    |
| pots.                                                  | tol na wrēch kunam.                                |
| 1258. The Mehtar has sent a man                        | Mehr ē manchī parhī ngātī namiā.                   |
| bearing a letter.                                      |                                                    |
| 1259. The Mehtar has sent a basket                     | Mehr chaktâ dros parē ktī tū dugā                  |
| full of grapes for you.                                | ptossī.                                            |
| 1260. When the stone hit my head                       | Kui iäst shai tä wott praptawa                     |
| I foll senseless.                                      | õts charra biti piltiām.                           |
| 1261. The sentry of my tent fell                       | Iast jilamá trachi manchi pshutti                  |
| asleep; and a thief came and                           | gussā; shtãr ozz; iāst tapik                       |
| took my gun away.                                      | shtär kati gūs. 🗢 –                                |
| 1262. You are a useless servant. I                     | Tā digar <b>sh</b> odr assish. Tō tōŗ              |
| dismiss you.                                           | a <u>zh</u> ēlom.                                  |
| 1263. My servant is very fat and                       | Iāst shodr bilugh kart ass bilugh                  |
| lazy.                                                  | dangar ess.                                        |
| 1264. Sir! your service is an honor-                   | Sāhib! Tōst <u>sh</u> odarī bilugh lesst           |
| able service and I am proud                            | `ass; iā̃ bilu <u>gh</u> ūd bissam.                |
| of it.                                                 |                                                    |
| 1265. Several persons have come for                    | Bilugh manchi shodari kusth dugā                   |
| service.                                               | osth.                                              |
| 1266. The sun has not yet set : there                  | Sū na pū̃gess ; nāru bilu <b>gh</b> ess.           |
| are many clouds.                                       |                                                    |
| 1267. Get a needle to sew this cloth.                  | Inā basná shusth dugā chamchich gats.              |
| 1268. Let us sit in the shade; it is                   | Tsāwē tā nizhēmā; tabi bilugh                      |
| very hot.                                              | butt.                                              |
| 1269. This is a shady place and                        | Inā kāno-wā bhim ess; wigasth                      |
| good to rest in.                                       | dugã lesst ass.                                    |
| 1270. Shake the tree, and the fruit will drop.         | Kāno ranzāo, kachwach yũr ellā.                    |
| 1271. The tree shakes with the wind:                   | Damu tã kāno ranzann : i kāno na                   |
| I have not shaken it.                                  | ranzēl.                                            |
|                                                        | Inā p'nilē do turungo ass; bilugh                  |
| shallow and very muddy.                                | mul ess.                                           |
|                                                        | Thū thū! tū jerik n'ass; õts õsh                   |
| shame; I thought to myself                             | karosh tū lesst manchi assish.                     |
| vou were a good man.                                   |                                                    |

# ENGLISH-BASHGALI SENTENCES.

| 1274.          | Don't have false <i>shame</i> (about<br>eating); you are hungry:<br>eat to your heart's content. | Jerik n'zãr; tū âttā biss; less katī<br>ktol kshī.                    |
|----------------|--------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| 1275.          | You are a shameless thief;<br>get you gone.                                                      | Tū jerik na wā, shtār assish;<br>partsī.                              |
| 1276.          | I am dead beat. Shampoo my<br>back and legs.                                                     | Õ wotinam; iãst pti pchu marõ.                                        |
| 1277.          | Do you know the difference<br>between the shape of Mirak<br>and Widing individually?             | Tū Mirak ajē Widing wizbirwor<br>kūrē kūrē sārchā ?                   |
| 1278.          | Give me my share of the flour,<br>and I am off.                                                  | Tū škīā brē barakti i gats, 🖥 ēlom.                                   |
| 1279.          | Share this flour between the four men                                                            | Inā brē shto manjīān p'mish<br>barakshī.                              |
| 1280.          | My knife is as <i>sharp</i> as my sword.                                                         | Iāst katā iāst tarwa <u>ch</u> brobar tsiā<br>assā.                   |
| 1281.          | That woman screams; I think <i>she</i> is hurt.                                                  | Askā istrī pubī kutt, õ purjonam<br>iklē zān biss.                    |
| 1 <b>2</b> 82. | A sheaf of corn is worth a seer of milk in our country.                                          | Emâ gul tãr ē gidr gum ē sir zū<br>erangst (ē brobar) ess.            |
| 1283.          | Shear the sheep and take its wool to Ranbūr.                                                     | Inā muzharala brē; ikiē warūk<br>Konisht wik ngā.                     |
| 1284.          | The cattle have gone out of the shed.                                                            | Gâo shall stë bar gostai.                                             |
| 1285.          | I have six sheep, a ram and<br>an ewe and a lamb.                                                | Iã shu wë asht; ë mu <u>zh</u> arala assā;<br>ē wez assā; ē wāk assā. |
| 1 <b>2</b> 86. | Get me a <i>sheet</i> from the merchant.                                                         | Sodāgar-o tā stē iā dugā ē pujil<br>gats.                             |
| 1287.          | A fox came and the <i>shepherd</i> caught it.                                                    | Wrigī osth; patsā mochī wrigī<br>wanamiss.                            |
| 1 <b>28</b> 8. | Why don't the Government soldiers carry shields.                                                 | Sirkār-o spāhī kai dugã kirā na<br>ngattett.                          |
| <b>12</b> 89.  | The tailor made my <i>shirt</i> last year. It is worn out.                                       | Basná shul pō sẽ iã digri shust;<br>daliss (siūm biss).               |
| 1290.          | Why are you shivering? Is it<br>from cold or from fever?                                         | Tū kai dugã ditkichī? Tū shillē<br>bissī, tu ranzol assā?             |
| 1291.          | My shoes are very thin.                                                                          | Iast kashk wetza bilugh turungo<br>asht.                              |

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| 1292. My horse's shoes are very                                                                                           | Ots ushpē nāl (wetzā) bilugh wishtr                                                             |
|---------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| broad.                                                                                                                    | <u></u> <i>assā</i> .                                                                           |
| 1293. I don't know how to shoot.<br>I have a bow and arrow<br>but not a gun.                                              | Öts tapk barüten na särētam.<br>Iāst dron je shtor asht; tapk<br>n'ass.                         |
| 1294. Get me a handful of wheat from the shops.                                                                           | Bazar stë ë gör gum giats.                                                                      |
| 1295. My stick is short.                                                                                                  | <i>lāst māroi</i> parmenstuk <i>ess.</i>                                                        |
| 1296. The coolie is very short in stature and cannot carry my load.                                                       | Barwai bilu <u>gh</u> parmenstuk ass;<br>iã bōr ngā n'batt.                                     |
| 1297. On my shoulder there is a boil.<br>I can carry nothing.                                                             | Iã patõs apsiss. Ots kā di ngā<br>n'battam.                                                     |
| 1298. From carrying the officer's big<br>load yesterday my shoulder-<br>blade aches.                                      | Dus sāhib-ē ál bōr ngutassī; patī<br>bradzott.                                                  |
| 1299. Shout out to Mirak. Say to<br>him that Bastl is shouting<br>to him.                                                 |                                                                                                 |
| 1300. Show me where does the road<br>to Mastīj go?                                                                        | I wārō Mastīch-i putt kor-ā giess.                                                              |
| 1301. I will show you a place where<br>eleven men are hiding with                                                         | <b>I</b> pa <u>zh</u> u wrālom yanits manchi aki<br>am <u>sh</u> iest tapkien ngāti nijinistai. |
| their matchlocks. I can't                                                                                                 | Ots n'annam; tu giti i gats.                                                                    |
| go: you go and fetch them<br>to me. I went; there is no<br>body in that place.                                            | Ots gā'm; askā pa <u>zh</u> u tā kai<br>n'aie <u>s</u> ht.                                      |
| 1302. Shut the door.                                                                                                      | Dū barm kshī.                                                                                   |
| 1303. The door of his house is shut,<br>and I can't open it.                                                              | Ikiē amu dū kach ess, õts ikiē<br>nuksā n'bannam.                                               |
| 1804. We have no sickles; how can<br>we cut the wheat?                                                                    | Emå tā churi n'aiesht ; gum kaikotē<br>ruimā ?                                                  |
| 1305. Which side of the river shall<br>we march to-morrow? (i.e.,<br>shall we go that side or<br>this side of the water?) | Emâ dalkið ēmish; áo tã për ēmish<br>âo tã ĩr emishā ?                                          |
| 1306. Samar beat me with a stick<br>yesterday on my side, so<br>my side aches.                                            | Samar dus mãros mĩsh iễst ani<br>wind'm; ani brasott.                                           |

# ENGLISH-BASHGALI SERTENCES.

| 1807. | What are you, making sighs<br>for? Are you tired or ill?                                       | Tū kai dugã <u>sh</u> ū kshåchi? Tū<br>gatrā bissishā; bradso-wā ashiā?                                                                         |
|-------|------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
|       | Silence ! don't speak ; only lift<br>your hand up if you see<br>the enemy.                     | Chusht azhō! na wari kshi; tü<br>kui pachanwari wajinbâ dusht ü<br>kshi.                                                                        |
| 1309. | Tell the men to be <i>silent</i> and<br>not to say a word. The<br>enemy will hear.             | Manji tã wari kuli chusht asho<br>kulir, i di wari n'kulir. Pachan-<br>wari sangalo.                                                            |
| 1310. | The merchants take silk and silver to Peshäwur.                                                | Sodāgar ar <u>sh</u> um je aru Peshâr põr<br>prēnd.                                                                                             |
| 1811. | You are very silly; you would never do for a spy.                                              | Të bilugh bedina-wa assish; të kui<br>shë awën na bachi.                                                                                        |
| 1812. | Since I entertained you, did<br>I ever beat you? Never.                                        | Kui tū i shodr karāsh i kui tū<br>vinojā ? kui di n'vinosāsh.                                                                                   |
| 1318. | He is not a <i>sincere</i> man : I am<br>sure he is treacherous<br>(liar).                     | Ikië manchi-ë zara lesst n'ess: õ<br>purjanam mizhol assā.                                                                                      |
| 1314. | The <i>sinew</i> of my leg is cut with a knife.                                                | lā kũr nūng karo (katā) mish<br>periss.                                                                                                         |
| 1815. | If you are all tired, call Mirak<br>to sing ; he is a good singer.<br>He will cheer us all up. | Shtalë shå gatrā bissār. Mirak tā<br>warī k <u>sh</u> ī; lālu kulonn; bilu <u>gh</u><br>lesst lālu kul assā. Emā sundī<br>ku <u>sh</u> āl kulā. |
| 1316. | Last year I did sink in the<br>snow. To-day I have sunk<br>in the water.                       | Pö sē zīm yūr gūssam. Starak do<br>tā p'mich bissam.                                                                                            |
| 1817. | My sister has fever to-day.                                                                    | Iã sus tã shtarak ranzul bies.                                                                                                                  |
| 1318. | My sister-in-law has eight sons.                                                               |                                                                                                                                                 |
| 1819. | Sit on this stone. Don't                                                                       |                                                                                                                                                 |
|       | show your head to the enemy.                                                                   | pa <u>ch</u> an war <b>i</b> tã na waro.                                                                                                        |
| 1320. | show your head to the enemy.                                                                   | pa <u>oh</u> an war <b>i</b> tā na wāņo.<br>Iā bilu <u>gh sh</u> illā biss; iā dugā<br>wazest chamo giats.                                      |
|       | show your head to the<br>enemy.<br>I am very cold; get a goat's                                | Iā bilu <u>gh sh</u> illā biss; iā dugā<br>wazest chamo giats.                                                                                  |

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| 1323. A bullet hit the sepoy's <i>skull</i> ;<br>I e <del>z</del> pect he will die.                                                       | Pondrik spāhī pazhē preptā ; õ pur-<br>zhanam mŗlā.                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| 1324. The sky is clear; I think we can march in the morning.                                                                              | Di bilugh shingër oss ; babdë ess dal-<br>kië mi <u>sh</u> im ëmâ.                          |
| 1325. The <i>slave</i> has run away from fear of this cruel master.                                                                       | Loni amost damtõl mochis widarthi<br>mugis.                                                 |
| 1326. I am sure his master will slay<br>him some day or another.                                                                          | $	ilde{O}$ purjanam kuī ikīē mochī's jārlā.                                                 |
| 1327. When I approached the sentry<br>last night, I saw he was<br>sleeping.                                                               | Rador kuī pālē tā torē assium ī<br>wariām p <u>sh</u> uissā.                                |
| 1328. My leg is asleep, I can't stand<br>up.                                                                                              | Iāst pū shingu; bunn, õts utti na<br>banam.                                                 |
| 1329. The thief cut off the sleeves of my cloak.                                                                                          | <u>Sh</u> tãr iāst shugā da <u>sh</u> ta prēti brā.                                         |
| 1330. The ground is frosty and very<br>slippery. Take care! you<br>will slip.                                                             | Bhīm <u>sh</u> ī tin ass, bilu <b>gh</b> silkin biss.<br>Trāchī bō ! tū silkilo <u>sh</u> . |
| 1331. Is the hill a gentle slope or is<br>it a difficult slope? And,<br>when you have crossed,<br>what is (the slope) on the<br>far side? | Ikiā ashtar chakūr assā uchangust<br>assā? Kui badō shai putarijbā<br>aki põr kāst azzā.    |
| 1332. Go <i>slowly</i> ; I am done; let us<br>take breath.                                                                                | Chille s; õts utinam; yū prezhamâ.                                                          |
| 1333. He is a <i>small</i> man; give him<br>a <i>small</i> load.                                                                          | Ikiā parmenstuk manchi assā ; ikiē<br>parmenstuk bēr prē.                                   |
| 1334. My house is <i>small</i> ; yours is<br>large, his house is the<br>largest.                                                          | ikī amu sundī amu tā bilu <u>gh</u> âla<br>ess.                                             |
| 1335. In your childhood had you<br>small-pox? I think you are<br>pitted with small-pox in<br>the face.                                    |                                                                                             |
| 1336. I smell a nice smell of roses<br>and a nasty smell of a dead<br>dog.                                                                |                                                                                             |
| 1337. What does your dog smell?                                                                                                           | Tū krũi kā gun kunn ?                                                                       |

# ENGLISH-BASHGALI SENTENCES.

| 1338.         | The dog-rose smells sweet.<br>The corpse smells bad.                                              | Tarî pish gun ann. Mrisht'est<br>digar gun ann.              |
|---------------|---------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| 1339.         | My house is full of smoke.                                                                        | Iāst amu tā dām parē assā.                                   |
|               | Why don't you <i>smoks</i><br>tobacco?                                                            | Tū kai dugā tamkio n'kusoch?                                 |
| 1341.         | My pyjama cloth is smooth.                                                                        | Iā taman basnā chil ess.                                     |
| 1342.         | On the march yesterday (at<br>the time of marching) a<br>long snake bit my brother<br>in the leg. | Dūs piliangsth wēl tā ál babust aš<br>iā brā kũr tā atamshi. |
| 1843.         | The sepoy <i>snatched</i> the fruit<br>from my hand and bolted.                                   | Spāhī i b'dusht tā kachwach wran-<br>giti mukiā.             |
| 1344.         | My head aches from much sneezing.                                                                 | Bilugh kazisth (?) dugā shai brad-<br>zott.                  |
| 1345.         | The snow is up to our arm-pits.<br>How can we cross the pass<br>to-morrow?                        | Zīm kachkruš wik assā. Emá<br>bado kaikots putr bamá?        |
| 1346.         | I have been <i>snow-blind</i> in both<br>my eyes for seven days.                                  | Sutt wōs (gujr) bā iāst zīm dugā<br>achie lu <u>sh</u> tiā.  |
| 1347.         | If you see the enemy do so (like this).                                                           | Pachan warī warinbā tū gitā k <u>eh</u> ī.                   |
| <b>134</b> 8. | The soldiers are very brave<br>and shoot straight.                                                | Spāhī bilugh lē damtāl manchī asht,<br>tapkiē lesst vind.    |
| 1349.         | So much (so large) loads we can't carry.                                                          | Ikiā'st <i>ál bōr ngā n'bami<u>sh</u>.</i>                   |
| 1350.         | His back aches; put a soft cloth under it.                                                        | Inā chil (?) bradzonn; anī pagur<br>chilla basnā ptē.        |
| 1851.         | This cloth is very much soiled ;<br>take it away.                                                 | Inā basn <b>ā</b> biluk mul a <u>sh</u> t ; nuksā.           |
| 1352.         | The old man <i>solicits</i> a rupee.                                                              | Askā purdū ē tang ragatt.                                    |
|               | Some man has come and says the sāhib wants some flour.                                            | •Kā mōch oss gijji kunn sāhib chok<br>brē ragatt.            |
| 1354,         | . Somehow (from wherever you can fetch), you must get the horses.                                 | Kör stð awenjibá u <u>sh</u> p tyor k <u>s</u> hi.           |
| 1855          | . Some one must go (one is to<br>go). It is your turn,<br>moreover, to go.                        |                                                              |

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| 1 <b>8</b> 56. | Sometimes he says Mirak<br>killed Bastī: sometimes he<br>says Dān Malik killed<br>Bastī.               |                                                                                           |
|----------------|--------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| 1357.          | In my house there must be a<br>dark cloak somewhere, I<br>don't know where.                            |                                                                                           |
| 1358.          | My son was wounded and<br>captured by the enemy,<br>but escaped by feigning<br>death.                  | Pachanwari iž puțr pror kriss<br>wanamiss, puțr marelgõ vi <u>s</u> hti<br>mugiss.        |
| 1359.          | My son-in-law is ill and will<br>surely die.                                                           | lāst zamān bradsowā assā shtalē<br>tyor mrlā.                                             |
| 1360.          | What sorrow afflicts you?<br>(why art thou sorrowful).                                                 | Tū kai kapā bitish ?                                                                      |
| 1361.          | I am sorry your son is dead.                                                                           | Tū pitr mriss : õts kapā bissum.                                                          |
|                | The man has brought sour fruit and sour milk.                                                          | Inā manchī-ē chenai kachwach<br>awariss : ilā awariss.                                    |
| 1363.          | Have you sown the flower<br>(rose) (?) seeds ?                                                         | Tũ tarĩ pish bi bhim tã ajissa?                                                           |
| 1364.          | Get a wooden spade and an iron spade.                                                                  | Bēo gats : chimbio dī gats.                                                               |
| 1865.          | The horse has eaten his belly-<br>ful of grain ; and two hand-<br>fuls of barley are to <i>spare</i> . | U <u>shap</u> ktol karungo pul <b>iā</b> r; du gōr<br>rīts uttā biss.                     |
| 1366.          | Speak ! Why are you silent?<br>Are you dumb?                                                           | Warī k <u>sh</u> ī! Tū kai dugā chusht<br>a <u>zh</u> ichi? Tū warī-na-wā a <u>sh</u> iā? |
| 1867.          | The enemy carries spears but<br>no guns.                                                               | Pachanwariān tā i <u>sh</u> t a <u>sh</u> t, tapk<br>n'a <u>sh</u> t.                     |
| 1368.          | That man is a species of fox.                                                                          | Ikiā manchi wrigi pūrst manchi<br>assā.                                                   |
| 1369.          | Take this money; spend it as you like.                                                                 | Tang ngātī tōst bidī tā vrich kabi.                                                       |
| 1370.          | •                                                                                                      | Starak shdo anī wisilom; dalkiē<br>ēmd.                                                   |
| 1871.          | The spiders are very plentiful this summer.                                                            | Inā wazdör sachung bilugh bund.                                                           |

1372. Spinach is good to eat with Ano mesh palak (?) iaraba less meat.

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| 1373. To <i>spit</i> before a headman is very disrespectful.                                              | Jast panishr sabjun wisth katrawör<br>kudüm essä.                                                      |
|-----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| 1374. He is a very spiteful man.                                                                          | Ikiā bilugh ziān karol manchi essā.                                                                    |
|                                                                                                           |                                                                                                        |
| 1375. You have spoilt our business.<br>I dismiss you.                                                     | Tū omā kudām digar kariss. Tā<br>õ tōr a <u>sh</u> ēlom.                                               |
| 1376. Get one small spoon and one large spoon from the bazar.                                             | Bazār stē bilankochi gia'ts, âl<br>kochi dī giats.                                                     |
| 1377. How many black spots are on<br>your white dog's back?                                               | Tō'st kazhīr krūī p'ptī tā chuk zhī<br>prots asht ?                                                    |
| 1378. He is a yellow dog all over,<br>and not spotted.                                                    | Iā krūi brobar adr rang azzā;<br>shtring na ass.                                                       |
| 1379. In spring this spring has much good cold water.                                                     | Wasut inā undsto p'mish bilugh lē<br>yuts do azzā.                                                     |
| 1380. Sprinkle water on the fire.                                                                         | Ikē angā tā do ashō.                                                                                   |
| 1381. If you sprinkle earth on the                                                                        | Zim tã p'sir palal (mri) azhibâ                                                                        |
| snow, it will melt fast.                                                                                  | zapp wilinn.                                                                                           |
| 1382. The spur of that hill is easy to climb.                                                             | Ikiā pazhun ēsth dugā lesst ass.                                                                       |
| 1383. The spy has come, but brings<br>word that the enemy has<br>made preparations to march<br>to-morrow. | Shū awðl manchi oz: <u>sh</u> ū aver <b>ā</b><br>dalkið pachanwari o <u>s</u> htasth dugð<br>tyor ass. |
| 1384. Let the shape of the sangar<br>(wall) be made square, not<br>round.                                 | Ini bangut <u>sh</u> t0 ptistak k <u>s</u> hir,<br>pondr n'ks <u>h</u> ir.                             |
| 1385. The horse ran away from his stable last night.                                                      | Dus radur us <u>hp</u> u <u>sh</u> p-amu tā stē<br>puz biss.                                           |
| 1386. The enemy came last night<br>and burnt my stack of<br>grass.                                        | Dus radur paohan-warī osth iāst<br>yūs gott angā tarā.                                                 |
| 1387. How many stages is it from<br>Dir to Chitral?                                                       | Dir stê Shdräl chi wös pott assă?                                                                      |
| 1388. The fruit is stale and dried.                                                                       | Kajwaj less n'ass, dariss.                                                                             |
| 1389. That little boy stole ten stalks<br>of corn.                                                        | Ikiā parmenstuk marir duts gum<br>kor <u>sh</u> tãr kati brā.                                          |
| 1390. The man stammers much.                                                                              | Ikiā manchi bilu <u>ah</u> supkott.                                                                    |
| 1391. The Mehtar is coming; stand                                                                         | Mehr ann; ushtō.                                                                                       |
|                                                                                                           | Lever with, career                                                                                     |
| up.                                                                                                       | L                                                                                                      |

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| 1392. There are clouds and the stars are not visible.                           | Nāru bilu <u>gk</u> ess : ras <u>h</u> tâ na waron<br>end.                               |
|---------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| 1393. My brother is <i>starved</i> to death.<br>There is no one to feed him.    | Iast brá atta mrā. Ikiē buri<br>presth dugā kai na asht.                                 |
| 1394. What is the state of your<br>father who is imprisoned<br>by the Amir?     | Amir tõst tõtt bändi kriss ka'st biti<br>assä 1                                          |
| 1395. If you will stay here two nights,<br>I will make you comfort-<br>able.    | Tū anī dā rador bulo <u>zh</u> bâ, õts tū<br>dugã lesst kasmat kalom.                    |
| 1396. If you steal my goats, I will<br>kill you with my gun.                    | Tū iāst gash <u>nh</u> tār kulājbā tū<br>tapkiš viti jārlam.                             |
| 1397. This hill is too <i>steep</i> for coolies<br>to carry loads.              | Inā badō bilugh uchangiest assā,<br>barwai bōr ngātī badō ū n'bann.                      |
| 1398. My father is very storn: his<br>own sons all fear him.                    | Iā tōtt bilu <u>gh</u> dang manchi ess;<br>ikiost putriness ikiē waranti wid-<br>harand. |
| 1399. I got steps made in front of my door.                                     | Iãst amu b'dū tā torð ugrām<br>a <u>zh</u> iss.                                          |
| 1400. Get my walking stick and my polo stick.                                   | läst märol giats parchē di giats.                                                        |
| 1401. The road is very sticky from the rain.                                    | Agal osthë dugë pott bilugh shur<br>biss.                                                |
| 1402. My girths have become stiff<br>with the horse's sweat.                    | Ushp ashps dugã giri wishtangess.                                                        |
| 1403. The hornet did sting my cheek yesterday.                                  | Bāmo dus iāst naskor tā attam <u>ah</u> ī.                                               |
| 1404. There is a <i>stink</i> here as of a dead dog.                            | Anë mrist kritë digar gun ess.                                                           |
| 1405. Lengthen my stirrup leather :<br>it is too short.                         | läst ushp tä pota tä drgr kshi :<br>parmonstuk ess.                                      |
| 1406. The women make excellent stockings in Aiyun.                              | Angr jugür bilugh lesst jarob kund.                                                      |
| 1407. He is a thief and has been put<br>in the stocks by the Mehtar.            | Shtär assā. Mshr gärā mē <u>sh</u> band<br>krissā.                                       |
| 1408. The stomach of the boy is<br>swelled from eating too<br>much Indian corn. | • • • •                                                                                  |

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| 1409. Collect stones to build a house.                                       | Wõtt wasanrāð amu kusth dugã.                                                                  |
|------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| 1410. Don't go near the falling                                              | Tu aktā watla wõtt tãr torð n'ai.                                                              |
| stones (stons shoot).                                                        | (na ī.)                                                                                        |
| 1411. When you go to stool, does any<br>blood pass?                          | Kui tū alkūr gujbā lui annā ?                                                                  |
| 1412. Stop that man and search him to see if he is a thief.                  | Ikiā manchi otīč ikiēst basnā tā<br><sub>L</sub> č <u>sh</u> k <u>sh</u> i <u>s</u> htār assā. |
| 1413. I shall stop at your house                                             | Õts tõst pamu tär trits wõs bulom                                                              |
| thirteen days till the end of the fast (of Ramzān).                          | kui wik pochëir na pețlon ennă.                                                                |
| 1414. A violent storm came accom-<br>panied with hail, and did<br>much harm. | Bilugh ganowakti damu ushtia,<br>azhir di oz, biliuk nuksan kra.                               |
| 1415. Mori has become rich and<br>very stout.                                | Mor <b>š biluga</b> lattr <b>š-</b> wā biss âl ktol-<br>wā dē biss.                            |
| 1416. Speak always straight and true,<br>and don't lie.                      | Tū sundī <u>sh</u> tal warī k <u>e</u> bī, na mi <u>sh</u> āō.                                 |
| 1417. My goats have strayed, and I<br>don't know where they may<br>be.       | Iãst gash piz bā, tĩch n'bunn kōr<br>asselabā.                                                 |
| 1418. The water of this stream is                                            | Inā b'gul ao biluk shtā kazhir                                                                 |
| very clear and white.                                                        | a88ā.                                                                                          |
| 1419. Get a hundred men to make an irrigation cut or stream.                 | Põch vissi manchi wasanrāð yū<br>kusth dugã.                                                   |
| 1420. A mud stream came and beat down my crops.                              | Koru ozz iãst ptul pagūr tāristai.                                                             |
| 1421. There is much water in the stream.                                     | Baglao (b'gul-o) do less.                                                                      |
| 1422. Mirak says he will strike Basti<br>with a stick.                       | Mirak gijji kunn "õts märoi m <del>õsh</del><br>Basti wilom" kutt.                             |
| 1423. The coolie says I have only                                            | Barwai gijji kutt "iä tä lamr ka-                                                              |
| a bit of string, not a thick                                                 | nik ass, kartā kanik n'aiesht "                                                                |
| rope. How can I take the load?                                               | kutt. "Bor kaškoti ngālam?"                                                                    |
| 1424. This horse is weak: give me                                            | Inā ushp tā kot n'aissht, dangari-                                                             |
| a strong and large horse.<br>1425. This horse stumbles much, I               | wak assā : kaŗtī dlī ushp giats.<br>Inā ushp zõlazzatt (?), õ purjonam                         |
| am sure he will fall.                                                        | piltali.                                                                                       |
| 1426. My horse stumbled and fell.                                            | Iā ushp zõlasti piltiss.                                                                       |
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| 1427. My horse stumbled by knock-<br>ing against a stone, and<br>fell.                                           | lã ushp wott tã pů proti piltiss.                                                                    |
|------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| 1428. This is a very dry year, so the crops are stunted.                                                         | Inā sē dumā sē bā, ptul dumā<br>parmenstak bistai.                                                   |
| 1429. Suddenly the enemy appeared<br>from the jungle and at-<br>tacked us.                                       | Pachan wari shū n'azzī tan dā (?)<br>b'zul stē bar osth emā pazhī stē<br>winām'ish (?).              |
| 1430. We suffer much from the Af-<br>ghāns, who oppress us.                                                      | Aoghānī manchī emá tã biluk zor<br>karond, emá biluk zur bā.                                         |
| 1431. Sugar is very good to eat<br>when it is very cold.                                                         | Kui shillā bilugh bibâ gur iārabâ<br>lesst butt.                                                     |
| 1432. The coolie is not tired; he is<br>only <i>sulking</i> (making a<br>fuss).                                  | Barwai gatrā na biss giān kaŗta-<br>wōr kunn.                                                        |
| 1433. In summer there is much heat<br>in this village.                                                           | Wazdur inā bagrām bilugh tapī<br>bunn.                                                               |
| 1434. The sun is not visible owing to many clouds.                                                               | Nāru bilu <u>gh</u> assā, sū waŗon na<br>ett.                                                        |
| 1435. This is a sunny village, there-<br>fore fruit ripens early in<br>the season.                               | Inā a <u>sh</u> peruk g <b>rā</b> m ass, ikiē dugā<br>kachwach <u>s</u> hangiē pagann.               |
| 1436. At sunrise we will cross the pass to-morrow.                                                               | Dalkiš sü chi presth wokt tā bado<br>putremd.                                                        |
| 1437. At sunset I think we shall reach Chitrāl.                                                                  | Õ purjinam sū pinjebā <u>Sh</u> drāl<br>promd.                                                       |
| 1438. The sunshine is hot : let us sit<br>in the shade.                                                          | Sū tapi ess: tsavē tā ni <u>zh</u> ēmā.                                                              |
| 1439. Collect a hundred men and sur-<br>round Mirak's village. Take<br>care you do not let a boy<br>even escape. | Pōch vissī manchīan mē <u>sh</u> Mirak<br>grām pabunor azhō. Trāchī<br>būr ē parmir dī bar na lazar. |
| 1440. He was surprised and therefore<br>fell into the enemy's hands.                                             | Derh bā; ikšē dugā pachanwari<br>b'dush gwā.                                                         |
| 1441. I have a suspicion Basti will<br>kill Mirak to-night.                                                      | Debdi kahâtam rötr (radhar)<br>Basti Mirak järlā.                                                    |
| 1442. Mix this medicine with water<br>and swallow it.                                                            | -                                                                                                    |

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| 1443. The horses are stuck in the $Ushp$ p'shur tã yữrshā.                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------|
| swamp.<br>1444. You have eaten my bread, so Tū iãst buri iãrissā, õts abott ku<br>I swear I won't do you any lom tū kā ziān na kulom.<br>harm. |
| 1445. There is much <i>sweat</i> under <i>läst ushp ktol pagiur bilugh</i> åshpa<br>my horse's belly. biss.                                    |
| 1446. My horse has sweated much. Iā ushpē bilugh ashpā baranziss.                                                                              |
| 1447. Get a broom and sweep the Sagon giats, iāst jilamā dugā<br>ground for my tent. bhīm sagād (skâ).                                         |
| 1448. The tea is very sweet, and the Chaĩ bilugh machi ass; ikiā kach-<br>fruit is very sweet (lus- wach bilugh arūzâo ess.<br>cious).         |
| 1449. My upper arm had a blow <i>Iãst gotr tã dus pror biss</i> , apsiss.<br>yesterday and has <i>swelled</i> .                                |
| 1450. My horse is more swift than Iã ushp tũ ushp tổ shatarami assā.<br>yours.                                                                 |
| 1451. I can't swim. My brother Õts noch kun na banam. Iã bra<br>swims like a fish in the áo matsī purstha noch kõr.<br>water.                  |
| 1452. I can't swim without an <i>Åotrmir mish</i> no <u>sh</u> ko banam giâ<br>inflated skin. dazh noshế n' banam.                             |
| 1453. Get me a switch for making Ushpë madasth dugã chui giats.<br>my horse go.                                                                |
| 1454. My sword is very blunt : Ia tarwach bilugh düru biss : ikia<br>sharpen it. tseo kshā.                                                    |
| 1455. My sword belt is very tight: Iāst tarwach paroah tā arrīn biss:<br>loosen it quickly. zapp wiehtri kehi.                                 |
| 1456. Sher Malik is a fine swords- Sher Malik bilugh less tarwoche                                                                             |
| man ; he can easily kill Morī, wil <i>assā ; Morī giāmī pru<u>sh</u>kurē</i><br>and think nothing of it. j <i>ārlā</i> .                       |
| T .                                                                                                                                            |
| 1457. My horse has a black tail. Iāst ushp dumri shī assā.                                                                                     |
| 1458. Who takes this load? Take Inā bora kāchi ngālabasa? Amni                                                                                 |

1458. Who takes this load? Take these four loads to Drasan.
1459. Who has taken my load?

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Inst usp dumn sni assa. Inā böra kāchi ngàlabasa? Amn shto bör Drāsan wik ngấr. Iã bör kũ bra?

1460. A man came and has taken my Manchi-ē ozz iā ushp wrangāti bri. horse by force. Tū basnâ na nuksāō; piliangsth 1461. Don't take off your clothes; it wokt biss. is time to be starting. Ikiā manchī-ē tuk shilā biss ; tū torē 1462. Don't go near that small-pox n'ai; tū tā di shilā. man; you will take the disease. Tū kai dugā cho witi walanch? 1463. Why do you talk so loud? 1464. Mirak is taller than Basti, and Mirak Basti tā drgr ess, ojē tū tōtt iã tott tã drgr ess. thy father is taller than my father. Kor hinju (?) bundabâ akī âo tyor tamarisk grows 1465. Where the torð bunn. there is sure to be water near. Kui tū tā tapi onziba chai pisth 1466. If ever you have fever, it is good to drink tea. lesst bunn. Katö vari i zärosth duga e manchi 1467. Get me a man to teach me the ösh kshi. Bashgali dialect. Inā bazisnā zapp drich bunn; less 1468. This cloth tears very easily; n'ess. it is not good. Ikiā parmen marir iāst digri drich 1469. The boy has torn (tear) my kriss. shirt. 1470. What are the tears in your Tū achē tā achu kyē atsand? Kū eyes for? Has any one hit winozhā? you ? 1471. Tell me, did you see Mirak Iā tā vri kshi, tū wariam (?) iāst stealing my shirt ? digri Mirak brā ? Ikiā manchi bilugh drgr wari wa-1472. He is telling a very long story, lann; i ikiā tich na bunn; mizhbut I do not believe him; ona shtalë walann. may-be he is lying. 1473. Ten tents have come from Duts jilamā spāhien dugā Dryus stē awend. Drosh for the sepoys. Tū iā tā ē tang ptā'm; shamash 1474. You have given me one rupee; 1 thank you. kulom. Askā bilu<u>gh</u> lē manchī ass. 1475. That is a very good man. Akia por  $\tilde{i}$ ; and por n'ai. 1476. Go that way; don't come this way. Ōts tū tā ē tang prēlom. 1477. I will give thee one rupee. Amkian bor bilugk allanga asht. 1478. Their loads are very heavy.

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| 1479. Do not beat them with sticks.                                                              | Amno m <i>ãroi mễs<u>h</u> na w</i> i.                                         |
|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| 1480. Drink your medicine; then<br>walk about a bit.                                             | Kui uzha pibdaski wokt tä ashok<br>pilingio.                                   |
| 1481. Go into my house and get thence a choga.                                                   | Iāst pamu attī i <b>ak</b> iē <b>stē sbugā</b><br>gats.                        |
| 1482. I have been: there is not one there.                                                       | Güssam : aki ē dī shugā n'aesht.                                               |
| 1483. These men say they cannot march.                                                           | Amnā manjī gijjī kund " <b>emā ē na</b><br>bamā "kutt.                         |
| 1484. Get me a thick stick.                                                                      | Iā dugā karti māroi giats.                                                     |
| 1485. That jungle is very thick and dark.                                                        | Ikiā bzul tā bilugh kāno atht : ikis<br>p'mith andhar ess.                     |
| 1486. You are a <i>thief</i> , I shall beat<br>you. It is not true, I am<br>not a <i>thief</i> . | Tū <u>sh</u> tār assi <u>sh,</u> tū voilom. Shtali<br>n'ess, iā shtār n'assum. |
| 1487. If you thieve, I shall cut your neck.                                                      | Tū <u>sh</u> tãr kulaibā girēk peţalam.                                        |
| 1488. My thigh bone was broken<br>last year by falling from a<br>horse.                          | Pō sē u <u>sh</u> p p'tsir stē wār ossam : chū<br>peringā.                     |
| 1489. My brother is very thin from fasting.                                                      | Iāst brá poshētr ngusth dugā bilugh<br>dadar biss.                             |
| 1490. Mirak's bull is very thin.                                                                 | Mirak ashu bilugh dadar ess.                                                   |
| 1491. My choga is of very thin tex-<br>ture.                                                     | läst shuga biliuk turango assa.                                                |
| 1492. Is this horse thin? or thy father's?                                                       | Inā u <u>sh</u> p dadar assā toohi u <u>sh</u> p<br>dadar assā ?               |
| 1493. My horse is very small; thine<br>is a big horse.                                           | Iã ushp biliuk parmen ass; tost <b>A</b><br>ushp ess.                          |
| 1494. Think (having made intention) before you speak.                                            | Babdi ka <u>ch</u> iti <i>gijji (vari) k<u>s</u>hi.</i>                        |
| 1495. I think Mori will die this night.                                                          | O purjonam Mori starak rador mrlð.                                             |
| 1496. I have run from Bröz to Drösh<br>and am very thirsty.                                      | Õts Broz stē Dryus wik achūnissam;<br>bilugk ao pik bā.                        |
| 1497. The Chārwēlo's father died <i>this</i> day.                                                | Ohārwēli-o tõtt starak gujr mrā.                                               |
| 1498. This year we shall go to<br>Dräsan                                                         | Shtarak së emá Drāsan tã <b>šmá.</b>                                           |

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| 1499.                  | This stick is large, that stick is small.                     | Inā dāo âl ess, ikiā dāo parmen ass.                                |
|------------------------|---------------------------------------------------------------|---------------------------------------------------------------------|
| 1500.                  | This village is very large.                                   | Inām grām bilu <b>gh âl e</b> ss.                                   |
|                        | A thorn has run into my foot.                                 | Bubust iā kur tā atamshiss.                                         |
|                        | Those men are all ill.                                        | Amki sundī manchī bradso-wā asht.                                   |
|                        | Thou art very tired : rest                                    | Tū bilugh gatrā bissish; tū anī                                     |
|                        | thou here.                                                    | wigiō.                                                              |
| 1504.                  | Get some thread to sew my                                     | Iãst basná shusth dugã pachēn                                       |
|                        | clothes.                                                      | giats.                                                              |
| 1505.                  | Take this wheat and thresh it.                                | Inā gum ngāti krāmō.                                                |
|                        | The water has come on to                                      | Åo iäst kram-gramma tä oz askia                                     |
|                        | my <i>threshing floor</i> and spoilt it.                      | na <u>zh</u> ā.                                                     |
| 1507.                  | There is a boil on my throat.                                 | Iãs garak tã apsiss.                                                |
| 1508.                  | Throw me down that stick.                                     | Ikiā mãroi iā tā wē attalāo.                                        |
| 1509.                  | The enemy has cut off the                                     | Pachan wari Samar pachũr dusht                                      |
|                        | thumb of Samar's right                                        | ja <u>sh</u> t angur <i>periss</i> .                                |
|                        | hand.                                                         |                                                                     |
| 1510.                  | Did you hear the thunder last                                 | Dus radhar wodaranchut tā p'kōr                                     |
|                        | night, and feel the earth-                                    | gwā ; indrisht tū shū bā ?                                          |
|                        | quake ?                                                       | ·                                                                   |
| 1511.                  | Tie this rope for me.                                         | Inā kanik iāst dugā giro.                                           |
| <b>1</b> 51 <b>2</b> . | Widing has killed a tiger.                                    | Widing juț jãriss.                                                  |
| 1513.                  | Those pyjamas are too tight, I                                | Inā taman bīliuk arar ass, ots ikī                                  |
|                        | cannot wear them.                                             | am <b>ji</b> na bana <b>m.</b>                                      |
| 1514.                  | Tighten the girth of my saddle.                               | Iãst zin bramishten weshtō.                                         |
| 1515.                  | On the river bank there are a                                 | B'gul pō <u>ch</u> wissī gāra a <u>sh</u> t.                        |
|                        | hundred timbers.                                              |                                                                     |
| 1516.                  | Spring is a good time to sow                                  | Wosut shiak bi bhim tā azhisth                                      |
|                        | vegetable seeds.                                              | dugā less wokt butt.                                                |
| 1517.                  | It is a long <i>time</i> since you left<br>Pe <u>sh</u> āwur. | Pe <u>s</u> hâr stē samar <b>tī</b> bilu <b>gh</b> d <b>r</b> ē bā. |
| 1518.                  | I have not time to learn Bash-<br>gali.                       | Katõ wari sãrasth dugã wom na<br>ess.                               |
| 1519.                  | How many times have you                                       |                                                                     |
|                        | been to Kāmdē <u>sh</u> ?                                     |                                                                     |
| <b>152</b> 0.          | Mirak is a very timid man;                                    | Mirak bilugh widharal manchi ass ;                                  |
|                        | he won't cross the pass.                                      | bado putren n'dronn (?).                                            |
| 1521.                  | There is no tin in our village.                               | Emå bgräm kalla tuch na ess.                                        |
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| 1522. The <i>tinsmith</i> says this tin is all bad.                                                            | Kallā tuch kar gijjī kunn "inā<br>tuch sundī na <u>ph</u> s ett (?)"<br>_kutt, |
|----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| 1523. I think you are <i>tired</i> . You are dead beat. Lie down awhile.                                       | Öst purjanam tü gatra bissish. Tü<br>otinosh. A <u>ch</u> ok <u>ch</u> umbō.   |
| 1524. I am going to Broz.                                                                                      | Õts Bruts tä ennam.                                                            |
| 1525. Don't go to Chitral.                                                                                     | Ba Bilan n'ai.                                                                 |
| 1526. Kāfirs don't smoke tobacco.                                                                              | Katā manchī tamkio n'kshond.                                                   |
| 1527. To-day rain will surely fall.                                                                            | Starak tyor agal ann.                                                          |
| 1528. My toes are all frost-bitten.                                                                            | Iãs kũir angur sundi sim tã lush-<br>tistai.                                   |
| 1529. Pull the rope all together.                                                                              | Sundi manchi ö wör kanik k <u>sh</u> ör.                                       |
| 1530. To-morrow we shall go to Gai-<br>rath, and the day after<br>to Chitrāl, and the third day<br>to Shoghot. | Dalkië emå Gairath ëmå; attri<br>Chandrāl ēmå; achutt <u>Sh</u> ogör<br>ēmå.   |
| 1531. The day after to-morrow thou shalt go to Bragamatal.                                                     | Attrī tū Bragamatal ēlo <u>sh</u> .                                            |
| 1532. Put out your <i>tongue</i> long out<br>of your mouth that I may<br>see it.                               | Dits a <u>zh</u> i tã drgr kti bar k <u>sh</u> i õts<br>õ <u>sh</u> kulom.     |
| 1533. I think it will snow to-night.                                                                           | Shtarak radör <i>zīm tyor prēlā</i> .                                          |
| 1534. You are too fat; you cannot<br>run.                                                                      | Tū biliuk kartā ashī; tū a <u>ch</u> ūn<br>na banch.                           |
| 1535. I fell going down hill, and<br>broke my tooth.                                                           | Badō yữr atsandã (tã ?) piltiām ;<br>iãst dutt peringess.                      |
| 1536. The sepoys can't see the road :<br>light torches for them.                                               | Spāhī putt wran na band : amná<br>dugã talā pashētī gats.                      |
| 1537. This boil hurts very much :<br>don't touch it.                                                           | Inā apsisst biliuk bradzott : ikiē tā<br>du <u>sh</u> t na pēkshē.             |
| 1538. Did the thief go towards<br>Chitrāl or towards <u>Ash</u> rett?                                          | Shtär Chandral por gwa te Ashrett<br>por güssa?                                |
| 1539. Go thou <i>towards</i> Dir.                                                                              | Dir por i.                                                                     |
| 1540. I see a tower. Is it Mirak's watch tower?                                                                | Õts kutt õsh kulom. Mirak kutt<br>assā î                                       |
| 1541. I see the <i>track</i> of a pony's feet<br>on the road.                                                  | P'putt tär ushp poh ösh kulom.                                                 |
| 1542. Send me a cunning man to track the thief's footsteps.                                                    | <u>Sh</u> tãr poh õ <b>sh</b> kusth dugã iã tã<br>shatrim manchi namo.         |

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| 1543. Let us set a <i>trap</i> to catch a leopard, and do you set a <i>trap</i> (make a <i>small house</i> ) to catch a hawk. | Jut wanomasth dūgā posh wond,<br>marē wanomasth dugā parmen-<br>stuk amu kshīr.            |
|-------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| 1544. Mori is cunning for setting traps.                                                                                      | Mori posh kusth dugã shatrim ass.                                                          |
| 1545. My horse is very tired, he can-<br>not travel .                                                                         | Iã u <u>sh</u> p bilugh gatrā bā, na pā<br>bann.                                           |
| 1546. When shall you <i>travel</i> from Drosh?                                                                                | Tū Dryus stē kui samarlo <b>sh</b> ?                                                       |
| 1547. I see many travellers coming<br>from Bragamatal.                                                                        | Õts õsh kalom biliuk wischā manchī<br>Bragamatal stē atsand.                               |
| 1548. On the road there is a quantity<br>of snow, so a horse cannot<br><i>traverse</i> it.                                    | Pa putt sīm bilu <b>gh</b> ess, u <u>sh</u> p na balē.                                     |
| 1549. By treachery Chānlū caught<br>Bastī to kill him.                                                                        | Ohãlu Basti mi <u>sh</u> ēti wanamiss ikiē<br>jāristh dugā.                                |
| 1550. Are the sepoys taking treasure<br>or powder?                                                                            | Spāhī khazonn nganda wārē dorē<br>tuch ngandā ?                                            |
| 1551. In my garden there is not even<br>one fruit <i>tree</i> .                                                               | Iã daristã ē dī kachwach kāno<br>n'aie <u>sh</u> t.                                        |
| 1552. Why is your body <i>trembling</i> ?<br>Have you fever? Are you<br>cold?                                                 | Tā jidd kai dugā ranzott (ditki-<br>ochī); ranzul assa ? shillā biss ?                     |
| 1553. Mirak has played a trick on me.                                                                                         | Mirak mizhongai iã tã oss.                                                                 |
| 1554. What trouble has overtaken<br>you?                                                                                      | Tū kā nalos biss ?                                                                         |
| 1555. Take the horses to drink at the trough or squeduct.                                                                     | Ushp ngātī pano do piāo.                                                                   |
| 1556. Get the <i>trunk</i> of a tree and hollow it out.                                                                       | Kāno`karu gats ; ikiš kandr kshi.                                                          |
| 1557. I want a trustworthy man<br>to carry a letter to Dir.                                                                   | Shtal manchi pkār assā Dir wik<br>parhingusth dugā.                                        |
| 1558. Speak the truth, or I will kill<br>you if you don't.                                                                    | <b>Sh</b> tal wari k <u>sh</u> i, <u>sh</u> tal wari na<br>kunjibá õts järlam.             |
| 1559. Mirak is a very truthful man :<br>he is not a liar.                                                                     | Mirak biliuk <u>sh</u> tal warī-wā manc <b>hī</b><br>a <b>ss</b> ā; mi <u>zh</u> āl n'ass. |

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| 1560. | The doctor has come to cut<br>your tumour.                    | Tabib ozs töst apsiss stö witlosth<br>dugã.                  |
|-------|---------------------------------------------------------------|--------------------------------------------------------------|
| 1561. | Your <i>turban</i> is dirty; wash it<br>in water.             | Tost sharr mul biss; ikië ao mish<br>ninjo.                  |
| 1562. | The <i>turf</i> near my house is all dried up.                | lāst pamu torë tā branz yūs daristai.                        |
| 1563. | When you reach Chitral, turn<br>to the right.                 | Kai Ohandrāl parizhbā pachūtr dus<br>por i.                  |
| 1564. | If you kill a man, the ruler<br>will turn you out.            | Tū manchī jārabā mehar nuksālā.                              |
| 1565. | The ruler <i>turned</i> him out, so he fled to Mastuj.        | Mehar askē nuksēyā, Mastich mē<br>mugiss.                    |
| 1566. | Send a man to turn our coolies<br>away towards Bragamatal.    | E manchi namō emâ barwai Bra-<br>gamatal pēr wetarosth dugā. |
| 1567. | The coolie says it is not his<br>turn to carry a load.        | Barwai gijjī kutt "bor ngusth dugā<br>iāst wor n'ess."       |
| 1568. | I turned him out of the house,<br>but he has come back again. | Iyë pamu stë tor krä, dë oz ess.                             |
| 1569. | To eat too much <i>turnip</i> is bad for you.                 | Bilugh abalum (?) yüsth tü dugā<br>Lesst na bunn.            |
| 1570. | Twice I have told you, but you<br>do not obey me.             | Öts tū tār dū wor gijji karosh, tū<br>wari na sanganch.      |
| 1571. | The Chārwēlo commits great<br>tyranny towards us.             | Ohārwēlī omá tā bilu <u>gh</u> zur<br>karonn.                |
|       | Ŭ                                                             |                                                              |
| 1572. | Basti is very ugly.                                           | Basti bilugh digar kor manchi<br>assā.                       |
| 1573. | My paternal uncle killed Basti's son with a sword.            | Iaet jash tõtt Basti putress tarwe-<br>, chen viti järiss.   |
| 1574. | I can't eat underdone meat.                                   | Õts shile ano yā n'banam.                                    |
| 1575. | The tower is undermined.                                      | Ikiā kutt arkien biss.                                       |

- 1576. Underneath my bed is a läst prusht tä pagur shi shuga black choga.
- 1577. Do you understand what I Tū iā varī zārlazhā? вау ?
- 1578. Undo the knot of my rope.

Iast kaniki girangusthe nuksao.

assā.

ENGLISH-BASHGALI SENTENCES.

| 1579. Undoubtedly Miral<br>with an arrow<br>him with my o     | , for I saw                | Shtalē Mirak Bastī kon vītī jāriss,<br>iā yost achē warē wariām.                |
|---------------------------------------------------------------|----------------------------|---------------------------------------------------------------------------------|
| 1580. We are very unfor                                       | •                          | Emd biliuk kā no-wā azzamish.                                                   |
| 1581. That village has<br>habited for sixte                   | been unin-                 | Askā bagrām shets sē bā kāchī na<br>nizhinistai.                                |
| 1582. Unless you go, I d                                      | on't go.                   | $Tar{u}$ na enji-bâ $ar{	ilde{o}}$ di na ennam.                                 |
| 1583. Unload the barley the horses.                           | bags from                  | Ushp p'ptī tā rits pashtuk wākshō.                                              |
| 1584. This is an unlucky<br>contracting an<br>(make a wife).  |                            | Inā mõs <u>sh</u> tri kusth dugã dagar ess.                                     |
| 1585. Your request is ver<br>able (the talk<br>men).          |                            | Tū varī bilu <u>gh</u> charrā manchiān<br>warī assā.                            |
| 1586. Until you return<br>plough the land                     | •                          | Tā atsir wik a <u>zh</u> ē n'karolam.                                           |
| 1587. This is a very unus<br>ing (unworkable                  | e).                        | Inā kudām bilu <u>gh</u> nā kusth kudām<br>assā.                                |
| 1588. Are we to go<br>to-morrow, or do                        | wn stream ?                | Emå dalkið chĩr ēmå, nĩr ēmâ ?                                                  |
| 1589. Upon the top of the<br>has the snow me<br>yet?          | e mountain<br>elted (gone) | Badō <u>sh</u> ai zīm starak gūssā ?                                            |
| 1590. Upper Maroi is a<br>village. The mo<br>Maroi are a poor | en of Lower                | Chĩr Maroi bilugh âl grām azzā.<br>Nĩrē Maroi manchiān bilugh kā<br>no-wā asht. |
| 1591. You have put my l<br>ground upside de                   |                            | Tā iāst adr bhīm tā <u>sh</u> ai yūr<br>tarissā.                                |
| 1592. Stop your horse make wrine.                             | to let him                 | Ushp otëd so kusth dugã.                                                        |
| 1593. Get some medicine                                       | for us.                    | Emâ dugã u <u>zh</u> ā gats.                                                    |
| 1594. Use this ointment<br>it on, just as I t                 | ;, and rub .<br>ellyou.    | Ano ngāti, õts kaikotī wilāmbā<br>giaktī tabal k <u>sh</u> ī.                   |
| 1595. This is a useless as<br>good will come o                |                            | Inā kudūm abas azzā, iktā mi <u>sh</u> kā<br>paidā na bunn.                     |

| L. L                                               | 1                                                                            |
|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| 1596. Mirak is a very vain fellow.<br>1597. Try as you will, it is in                  | Mirak bilug <u>k</u> utili manchi azz.<br>Ikiā kudūm chuk di karbā kā paidā- |
| vain.                                                                                  | na ess.                                                                      |
| 1598. That valley is very narrow, and<br>in winter gets no sun.                        | Ikiā gol bilugh arin assā, ziwor sū-<br>na prēnn.                            |
| 1599. There is no snow at present<br>in the <u>Shish</u> i valley.                     | Shishi b'gol starak zim na ess.                                              |
| 1600. Our fellows showed such valour (fought so much) that the enemy ran away at once. | Emå manchon gittā shuch krā pach-<br>anwarī zapp mukiā.                      |
| 1601. This ring is very valuable.                                                      | Inā angushtūn bilugh mari-wā azzā.                                           |
| 1602. Cease that vaunting; people get<br>annoyed by it.                                | Tū utili-wār bēs kshī; manchī kapā<br>bund.                                  |
| 1603. The Bashgalis don't oultivate vegetables.                                        | Katā manchī <u>sh</u> ak ki <u>sh</u> na kund.                               |
| 1604. The veins of the horse stand<br>out owing to his galloping<br>much.              | Bilugh a <u>ch</u> ūnisthē dugā u <u>sh</u> p lui-<br>kon kartī bistai.      |
| 1605. Why do you not make a <i>verandah</i> for your house?                            | Tū yost amu dugā parē kyē na<br>kunjī?                                       |
| 1606. I am very angry with Basti.                                                      | Õts Basti dugã bilugh kapā bissum.                                           |
| 1607. Chānlū appears vexed. Why is he put out?                                         | Ohālū kapā bist waron enn. Kai<br>dugā kapā biss ?                           |
| 1608. You vez me; that's why I am<br>angry with you.                                   | Tū iā gatrā kunji; ikiē dugā kapā<br>assum.                                  |
| 1609. In every village of the Bash-<br>galis is there a tower<br>(one apiece).         | Parē Katō bigrām yō narī kutt<br>ashtā?                                      |
| 1610. The enemy cut down all our                                                       | Pachanwari wanzo mēsh emāst                                                  |
| vine trees with axes.                                                                  | drosh grits sundi pēriā.                                                     |
| 1611. The horse is tired, don't use <i>violence</i> with him.                          | Ushp gatrā biss, ikio mēšh zur<br>n'kshī.                                    |
| 1612. A violent wind is blowing to-<br>day.                                            | Starak bilugh karwa damu ushtenn.                                            |
| 1613. Violet colour is good for trousers.                                              | Taman dugã mulkhen* rang lesst                                               |

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\* As in Chitrālī,



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| 1614. The violets have come out (into flower).                              | ,                                                             |
|-----------------------------------------------------------------------------|---------------------------------------------------------------|
| 1615. Last night I heard . Aror's                                           | Dūs rador Aror vari chut iā p'kor                             |
| voice. I am quite sure it<br>was not Widing's voice.                        | varī chut n'ozz.                                              |
| 1616. You ate too much: that's<br>why you are vomiting.                     | Tū bilugh iārā : ikiē dugā tu baron<br>azinj.                 |
| 1617. The vultures are seated on the dead horse's carcase.                  | Parol mrisht ushp p'tsir nizin ess.                           |
| W                                                                           | /                                                             |
| 1618. We will cross the river by<br>wading. We won't swim.                  | Emá kũir tũr tã golo tã petrēmâ;<br>emá dazhnoji n'ēmá.       |
| 1619. I made a wager with Mirak                                             | Õts Mirak mõsh dåtik kustham*                                 |
| that in one day I would<br>go from Drö <u>sh</u> to the                     | Dryus ste <u>Sh</u> āwal bado <b>wik</b> ē<br>gujar ēlom.     |
| Shāwal pass top.                                                            |                                                               |
| 1620. I won my wager (wager being                                           | Õts dâtik kusth iäron Mirak                                   |
| made, ate) and Mirak lost<br>it.                                            |                                                               |
| 1621. My waist is very small.                                               | Iãst sānawotan bilu <u>gh</u> lamar assā.                     |
| 1622. My waist band is left behind<br>in my house.                          | Is shurr is pamu nachess.                                     |
| 1623. This cloth is not suited for a waistcoat.                             | Inā basnágor kaltachā kusth dugā<br>lesst na ass.             |
| 1624. Wait here until you see with<br>your own eyes that I am<br>returning. | Anīō otā yost achē warē waŗan wik<br>ki Sāhib pilingdī ann.   |
| 1625. I shall walk, not ride to-<br>morrow.                                 | Dalkiã õts küir ware ennam, ushp<br>psir na ennam.            |
| 1626. The soldier is not walking up<br>and down.                            | Spāhī n'palengā.                                              |
| 1627. The <i>wall</i> of my garden fell<br>down last night.                 | Dus rador iãst ni <u>zh</u> āo tã châ<br><sup>·</sup> urriss. |
| 1628. There are no walnuts on my large walnut tree this year.               | •                                                             |
| 1629. Do you want a horse for to-<br>morrow's march?                        |                                                               |
| * A                                                                         | - I the next contains and (hitself                            |

\* Apparently the idioms in this and the next sentence are Chitrali.

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| <ul> <li>1630. In what war did Basti die ?</li> <li>1631. He was caught a prisoner in<br/>war (enemy caught him).</li> </ul>                                      | Bastī gijj pit <u>sh</u> un tā mṛā?<br>Pit <u>sh</u> un damiā.                                                                                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul> <li>1632. This is a very warm place.</li> <li>1633. This fire makes great warmth.</li> <li>1634. Karuk has a wart on the thumb of his right hand.</li> </ul> | Anīo bilug <u>h</u> tapī bhīm assā.<br>Inā angā bilug <u>h</u> tapī kunn.<br>Karuk pachūtr dus <u>h</u> t tā jas <u>h</u> t angur<br>kachai biss. |
| 1635. Last year there was no snow,<br>so there was no grass.                                                                                                      | Pō sẽ zĩm n'aisĩ yữs di n'aisĩ.                                                                                                                   |
| <ul> <li>1636. Wash my clothes for me.</li> <li>1637. The wasp stung my hand.</li> <li>1638. Watch over (do sentry duty at) my tent to-night.</li> </ul>          | Iã dugã basná do tã ninjō.<br>Úshpik iã dusht atamshīsh.<br>Rador iãst jilamā tã palā krō.                                                        |
| 1639. How many watchmen shall I<br>put near your camping<br>ground to-night?                                                                                      | Tū jilamā jagā torē starak rador<br>chī palā krolam 1                                                                                             |
| 1640. Mirak and Chānlū will divide<br>the watches of the night<br>between them.                                                                                   | Mirak je Chälü wör tētī pala kullā.                                                                                                               |
| 1641. This water is not good for<br>drinking.                                                                                                                     | Inā âo pisth dugā less n'ess.                                                                                                                     |
| 3                                                                                                                                                                 | Chai kusth dugã inā <b>â</b> o tipāo.                                                                                                             |
| 1643. The water of this water-cut is<br>muddy and not fit to<br>drink.                                                                                            | Inā yū âo zul biss; pisth less na<br>ass.                                                                                                         |
| 1644. Sir! your servant says "I have<br>warmed the <i>water</i> ."                                                                                                | Sāhib ! tost shodr gijji kutt " iā bo<br>tipess."                                                                                                 |
| 1645. The <i>water</i> is very dirty. There<br>is no fire : how can I warm<br>any <i>water</i> .                                                                  | Âo bilu <u>gh</u> alūrī ess. Angā n'ess :<br>kaikotī <b>ŝ</b> o tipām.                                                                            |
| 1646. How many water mills are in<br>your valley?                                                                                                                 | Tū b'gul chuk <b>ap<u>sh</u>ð a<u>s</u>tt ?</b>                                                                                                   |
| 1647. Which way has the enemy<br>fied? This way or that<br>way?                                                                                                   | -                                                                                                                                                 |
| 1648. Shall we go this way or that<br>way to-morrow?                                                                                                              | Dalkiã ani por ēmā aki por<br>ēmā ?                                                                                                               |

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| 1649. We are all very poor.                                                                                       | Emå sundi kā no-wā azzamish.                                            |
|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| <ul> <li>1650. The coolies of this village are<br/>so weak they can't carry<br/>the loads.</li> </ul>             | lnām bagrām barwai biluk dadar                                          |
| 1651. Do the Ba <u>sh</u> galis <i>wear</i> red<br>shirts ?                                                       | Katā manchi zīrā digrī amjind ?                                         |
| 1652. How many <i>weavers</i> are there<br>in your valley ?                                                       | Tā gol tã chuk pach kar asht?                                           |
| 1653. Weed the grass out of my vegetables.                                                                        | <u>Sh</u> iok p'mij yūs biss, narð.                                     |
| 1654. What is that old woman weeping for ?                                                                        | Ikiā purdik kai dugā zhun duzdi<br>zhundi?                              |
| 1655. The babu is weighing the flour.<br>I saw him weigh it yester-<br>day.                                       | •                                                                       |
| 1656. They don't use stones for weighing.                                                                         | Amni tursth dugā wõtt n'utend.                                          |
| 1657. There is not one well in my country.                                                                        | läst gul tä ēdī bo-duk nā ai.                                           |
| 1658. You have done your work<br>very well.                                                                       | Tū yost kudūm bilu <u>gh</u> lesst kristai.                             |
| <ul> <li>1659. Are you all well?</li> <li>1660. Yesterday I went to Dröah,<br/>thou wentest to Drushp.</li> </ul> | Shâ sundī aduniyē azeirā?<br>Dus õts Dryos gāsam, tu Drushp<br>gosāosh. |
| 1661. The day before yesterday he went to Ashreth.                                                                | Nottrë izë Ashrett güs.                                                 |
| 1662. The enemy fled to the west.                                                                                 | Pa <u>oh</u> anwari sū pū ettann pōr<br>mugistai.                       |
| 1663. A very cold wind is blowing<br>from the direction of the<br>west (setting sun).                             | Sū pū esth pōr stē bilu <u>gh s</u> hal<br>damu u <u>s</u> htinn.       |
| 1664. The ground is very wet: the<br>sepoys can't encamp there.                                                   | Bhim bilugh shil ass : spahi akis<br>jilama uten na band.               |
| 1665. What did the spy tell you ?<br>1666. What sort of a horse is that ?                                         | <u>Sh</u> ū ngal tū tā kā varī karosh ?<br>Ikīā ushp kā'st ushpa azzā ? |
| 1667. What for are you angry with me ?                                                                            | Tu kaikotë iä tä kapa bissish?                                          |

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# ENGLISH-BASHGALI SENTENCES.

| 1668. The grain of the <i>wheat</i> is very small this year. This year there is much fruit. |                                                                  |
|---------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| 1669. Up till when did you look out<br>for me yesterday?                                    | Tū dus kui wik jäst dugā 8sh<br>karsam ?                         |
| 1670. When did Widing come yes-<br>terday?                                                  | •                                                                |
| 1671. When you see me on the hill<br>top, then go you to yo<br>own home.                    | Kui bado <u>sh</u> ai õts warimbā aki t <b>a</b><br>yost pamu i. |
| 1672. Whence comest thou?                                                                   | Tū kõr stõ atsanji ?                                             |
| 1673. Where is Mirak?                                                                       | Mirak kõr ass?                                                   |
| 1674. Whereabouts is your home?                                                             | Tū amu kett azzā?                                                |
| 1675. Which man is talking?                                                                 | Kāchī manchi wari walann ?                                       |
| 1676. Which is your stick ?                                                                 | Kett tū maroi assā?                                              |
| 1677. Which way did Mori travel?                                                            | Mori kurār gūs ?                                                 |
| 1678. The Bada <u>khsh</u> ānī <i>whips</i> are<br>excellent.                               | Badakshān'st ushp-bradzi bilugh<br>lesst bund.                   |
| 1679. A whirlwind threw down my tent.                                                       | Yazh duma ozs iãst jilamå piltēā.                                |
| 1680. Don't speak so lond. Whisper<br>to me.                                                | Ål vri na kshi. Iä p'kör vri kshi.                               |
| 1681. The white cow is lame to-day.                                                         | Starak kazhiri gdo kutann.                                       |
| 1682. Who says "Gumāra is a thief"?                                                         | Kāchi gijji kunn "Gumāra shtär<br>ass"?                          |
| 1683. Whose horse is that?                                                                  | Ikiā kust ushp assā ?                                            |
| 1684. Why are you frightened?                                                               | Tū kai dugã widharanj ?                                          |
| 1685. Why did your father go to<br>Kåbul?                                                   | Tött kaikotē Kābul gosī ?                                        |
| 1686. Is the road wide or narrow?                                                           | Putt wishtri assā arin assā?                                     |
| 1687. He has put on very wide<br>trousers.                                                  | Askā manchi biluk vi <u>sh</u> tr taman<br>amj <b>i</b> ss.      |
| 1688. Is that woman a widow?                                                                | Ikīā jugūr pulatan assā ?                                        |
| 1689. That is a wild sort of horse (a thing of the woods).                                  | Ikīā ushp bilugh bzul (p'pshu) lattrī<br>ass.                    |
| 1690. There are no willows near<br>Bröz.                                                    | Bruts torë e di ramo kano na asht.                               |

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ENGLISH-BASHGALI SENTENCES.

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| 1691. My wife died yesterday<br>evening.                                              | Dus rador iã is <u>h</u> tri m <b>ri.</b>                                      |
|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| 1692. You are a very wilful fellow.                                                   | Tū bilugh to chitt tã moch ashi.                                               |
| • •                                                                                   | $T\bar{u}$ kshul ashi $\bar{\delta}ts$ $\bar{s}$ mos shodr                     |
| 1693. If you are willing, I shall<br>take you into my service for<br>a month.         | kulom.                                                                         |
| 1694. They are making a window for<br>my house.                                       | Iãst amu dugã duak-dū tyor kund.                                               |
| 1695. Wine is not good for the                                                        | Katõ manchi dugã tin lesst n' butt :                                           |
| Kāfirs : I fear they will get idiotic.                                                | -                                                                              |
| 1696. Get me the feathers of that<br>bird's right wing.                               | Askē marangatsē pa <u>ch</u> ūtr u <b>ŗŗ ūn-</b><br>drēparu iā dugā gats.      |
| 1697. The men are winnowing the                                                       | Manchi shāli babiā ashind, damu                                                |
| rice, as there is a bit of a breeze.                                                  | achok ann.                                                                     |
| 1698. In winter the water of this stream is sometimes frozen.                         | Zawor inā b'gul do kui kui shē tinn.                                           |
| 1699. Wipe my gun with a cloth.                                                       | Iãst tapkie puch mish ska.                                                     |
| 1700. If you had been wise, you<br>would not have eaten un-<br>ripe grapes yesterday. | Tū k <u>sh</u> ul bistd tū na pagī kach-<br>wach dus na yulozi <u>sh</u> .     |
| 1701. What is your wish in this affair ?                                              | Inā kudūm p'mish tū chitt (bidī)<br>kī'st azz i                                |
| 1702. With me who will go across<br>the river ? We will go with<br>inflated skins.    | Iā m <u>ësh</u> do tā pār kett ann ? Emâ<br>âotrmir mēsh ēmâ.                  |
| 1703. The soldier cut my leg off with a sword.                                        | Spāhi iāsi kūr tarwāz-ēm pe <b>țiss.</b>                                       |
| 1704. I can't go without you, nor<br>without an inflated skin.                        | Tū n'ai õts ē n'banam, õts <b>b</b> otrmir<br>m <u>ēsh</u> ennam gyān n'ennam. |
| 1705. There is no witness that Karak took the goats.                                  | Kā shosh n'ai Karak sharr (gash)<br>baroktī.                                   |
| 1706. The wolf took off my goat last night.                                           | Dus rador shall oss iãst gash brā.                                             |
| 1707. That woman is lame.                                                             | <i>I</i> ki jugür <i>kuttātt</i> .                                             |
| 1708. The old woman is tired, and                                                     | Iki purdik gatrā biss; pē botten                                               |
| can't walk on.                                                                        | na bann.                                                                       |

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- 1710. Bring wood for making a fire.
- 1711. That wood (orchard, or garden) is very pretty.

woman) of ten years.

- 1712. That wood (forest, jungle) is very thick with trees.
- 1713. Is our camping ground wooded (shady) or devoid (of trees)?
- 1714. Fetch wood, let's make a fire. See! two men have just brought wood.
- 1715. The wool of the Badakhshani sheep is very good for chogas (cloaks).
- 1716. Wonderful! how did you escape ? (become alert).
- 1717. It is wonderful: so many earthquakes in one day.
- 1718. Say one word at a time.
- 1719. Your work is very hard.
- 1720. The working men of our house are all ill.
- 1721. In the whole world there is not a thief equal to Mirak.
- 1722. The worms have eaten the root of my fruit trees.
- 1723. The spy says the Mastuj valley is worthless : nothing grows there.
- 1724. How were you wounded, by a bullet or sword?
- 1725. I have brought a cloth to wrap around your arm.
- 1726. The sepoys are wrestling : they are not fighting.

Dão gats angā kusth dugã.

Ikiā nizhā biliuk shingiera assā.

Ikië bannë tä bilugh kino asht.

Emâ jilamá u<u>ch</u>asth jaga tä kāno-wā azzā giyān azzā ?

Angā kor dāo giats. Õsh kshi ! du sai dão avārā.

- Badakshān bakhta muzharla waruk shugā kusth dugā lesst bunn.
- Uterestā! Tū kaikoti shuā bāsh?

Derbün vari ess: ē wos tā egiak indrish ptā.

Eo nargi vari kshi.

Tū kudūm bilu<u>gh</u> zur essā. 1

- Iāst pamu kudūm-kul manchi sundi bradsowā asht.
- In dunya ta Mirak purstha shtar n'ai.
- Gü inist kachwach kino karrū iäriss.
- Shū-ngal manchī gijji kult Mastīj gol digar ess: akī kā paidā na butt.
- Tū kā prēr bissish, tarwoch prör bissizhā, tapkiē pondrik prīr bissishā ?
- Ots tū dusht r'tsir pugusth duga sharr awāŗā.

Spāhī alek alokand; kalā na kund.

| ·                                                                                                            |                                                                                             |
|--------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| • 1727. That old man's forehead is very wrinkled.                                                            | Askā purdikē miok bilugh <u>ah</u> ak <u>ah</u> js <b>s</b> .                               |
| 1728. I fell yesterday, and my wrist<br>is damaged.                                                          | Dus piltissam, iäst dusht sachl<br>witrpiss.                                                |
| 1729. Call a mun <u>sh</u> ī to <i>write</i> a letter<br>for me, as I can't <i>write</i> a<br>letter myself. | Mun <u>sh</u> i wald ið dugð parhi strasth<br>, dugð ; Öts yð sarð parhi stran<br>na banam. |
| 1730. This work is wrong.                                                                                    | Inā kudūm digar ess.                                                                        |
| 1731, This is the wrong side of the<br>cloth; that is the right side<br>(or outer side).                     | Inā basná <u>sh</u> u stēr assā ; ikiā baŗē<br>assā.                                        |
| Ŷ                                                                                                            | ,                                                                                           |
| 1732. The yāk carries an enormous load.                                                                      | Zügh gåo biluk allangā bõr ngann.                                                           |
| 1733. What are you yawning for?<br>Did you not sleep last<br>night?                                          | Tū kai dugã uzzamanj? Tū dus<br>rador n'p <u>sh</u> usiā?                                   |
| 1734. I shall return after six years.                                                                        | Shu sö ptibar pilingiti ellom.                                                              |
| 1735. Fetch me that yellow flower.                                                                           | Ikiā zarīn pish iā dugā gats.                                                               |
| 1736. Are you well? Yes, I am well.                                                                          | Tū aduniyē ashā ? Ö aduniyē assum.                                                          |
| 1737. Yesterday we went to Utsum<br>and you went to <u>Shish</u> i.                                          | Dus emâ Utsam güssamish ; shâ<br>Shishi gussër.                                             |
| 1738. The day before yesterday they went to Kiār.                                                            | . Attrī amnā Kiār gyē.                                                                      |
| 1739. Mirak has not yet come.                                                                                | Mirak shtarak wik na ozs.                                                                   |
| 1740. I shall make you all contented.                                                                        | 0 shâ sundî kuzhāl kulom.                                                                   |
| 1741. Is your cow young?                                                                                     | Tōst gâo lillik assā ?                                                                      |
| 1742. My cow is younger than yours.                                                                          | Iã gảo tũ gảo tã lillik assā.                                                               |
| 1743. Your father is a very brave man.                                                                       | Shå'st tött bilugh kehul manchi ess.                                                        |
| 1744. Your (thy) gun is bad.                                                                                 | Tā-sē tapik digar ess.                                                                      |
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## APPENDIX I.

The following is a list of some important works which help to throw light on the languages of Kāfiristān. None of these, except the third, written partly under my supervision, were available for reference in Chitrāl, where I prepared the sentences, etc., now published.

ABDUL HARIM KHAN, (KHAN SIHIB), NATIVE POLITICAL ASSISTANT, CHI-TRAL.—Manuscript papers on the Wai-alā dialect, spoken in Waigal, 1900, kindly lent for inspection by Dr. Grierson.

Of these words, 70 per cent. have a considerable similarity to the corresponding words in my collection, and a large number agree with the Waigulī of Sir H. Lumsden.

The infinitives end in sta, and the terminations of some tenses and persons of the verbs, and many numerals, including *puch-vishi* (5  $\times$  20) one hundred, agree with the Bashgali of my collection.

ABOULFEDA, Géographie d'.—Traduite par M. Reinaud: Paris, 1868.— Saghānyān se prononce en Persan Djaghānyān. C'est un grand district où l'eau et les arbres abondent. Le nom d'origine en est Saghāni. Le Saghānyān est un groupe de localités situées au-delà de l'Oxus.

AZIMULLAH, NAIK, 27th Punjab Infantry.—A collection of Bashgali-Persian sentences in manuscript in the office of the Brigade Major, Chitral, 1897-98.—The grammar and words agree with my collection.

BABER, Mémoires de.—Traduites par A. Pavet de Courteille.—Le beuluk de Djagān-serai<sup>\*</sup> est situé toute à l'entrée de Kāfiristān. (This was written about 1503 or 1504 A.D.)

BELLEW, DE. H. W.—Ethnology of Afghanistān. Congress of Orientalists, September, 1891.—A paper of great interest on the Greek influence on the tribes of Afghānistān, the Hindū Kush, and those about the Upper Oxus, Badakhshān, etc.

BIDDULPH, COLONEL.—Tribes of the Hindoo Koosh: Calcutta, 1880.—The Bashgali vocabulary (about 350 words) agrees very fairly with the words collected by me. His infinitives are not uniform as to termination, but sometimes end, as in the Chitrall, in k, and in various other ways. His 1,000 is hazār.

BIRD, J.-See LEECH, R.

<sup>•</sup> Which the Emperor Babar took from the Käfirs. On that occasion the Käfirs of Pich came to their assistance.

BUBNES, LIEUT.-COLONEL SIE A .--

- (1) Cabool, a personal narrative, 1842.
- (2) On the Siah-posh Käfirs. Journal Asiatic Society, Bengal. 1838.
- (3) On the Siāh-pōsh Kāfirs. Pro. Bombay Geo. Society, 1838.

He gives a vocabulary of 105 words and 16 numerals, (of which *chal* is 80, and *hazār* 1,000), and 14 short sentences, (obtained from a resident of Waigul), all of which is practically included in Sir H. Lumsden's Waiguli collection.

There is a good deal of difference between his collection of words and mine. His grammar, as shown in the sentences, differs from mine. He says some of the soft labials cannot be pronounced by an European. He gives 24 Pashai words and 8 Pashai sentences, and remarks that the Pashai language is spoken in 8 villages and is very similar to the Kāfir. There is not much similarity between these Pashai words and the words and sentences of my Bashgali collection.

CAMPBELL, J.—Lost among the Afghans, 1865.—The writer states he lived some time in Kāfiristān, but gives no remarks on the language.

CAPUS, G.—Vocabulaires de langues pré-pamiriennes. Bulletins de la Société d'anthropologie de Paris, 1889, p. 203, etc.—At Chitrāl a vocabulary of 139 Siāh-pōsh Kāfir words, 30 numerals and 9 short sentences was prepared. These were evidently obtained from the language spoken at Loudhé (Luttdeh?) in the Bashgal valley, and agree generally with my collection. According to Capus, 1,000 is ew sarr, ewzarrba.

He gives a second collection of 114 words and 8 short sentences taken down at Meahed from a slave of Tzoum. Some of these correspond fairly with my collection: others differ. About half agree with the Waiguli of Sir H. Lumsden. In this collection *chal* is 40; *sadd*, 100; *hazār*, 1,000; and *gunei*, wife.

CAPUS, G.—Le Kafiristan et les Kafirs Siahpouches. Revue Scientifique, Revue Rose. Vol. 43 of 1889 (Paris), pages 1 to 8; 237 to 291; Vol. 44, pages 424 to 432.—The Greeks did not penetrate into Kāfiristān. He gives a map of Kāfiristān from information by Biddulph and Tanner.

He notes the days of the week are Agar, day of rest, and the remainder

• I heard this word more often pronounced post than push.

BIBLIOGBAPHY.

*šbi*; *dibi*; *trebi*; *chtvobi*; *pouchi*; *chou* (1st, 2nd, 3rd, 4th, 5th, 6th ?). He records a Kāfir prayer : "I amatch guich, bilim guicha, haloche patchemichi," (of which there is no translation), and a few religious terms of priests, deities, etc.

Cyrus conquered a tribe named *Capicha*, red, on the borders of Ghorband and Panjir. This is perhaps the people who made the wine known as Capichi or Capisa, renowned about 400 B.C.

CAPUS, G.—Quatrième Congrès International des Sciences Géographiques, Paris, 1889. Le Kafiristane et les Kafirs Siahpouches.— This gives a long account of the country, habits, customs, deities, etc.

Tomaschek's words are quoted "c'est une langue pracrite pure, qui s'est débarrassée des nombreuses inflexions du Sanscrit, et les remplace par une agglutination d'éléments propres. Toutes les langues du Pamir et de l'Hindu Kouch ont de commun la façon de compter par multiples de vingt, de sort que 70 se dit  $3 \times 20 + 10$ , et 400 devient  $20 \times 20$ . Il faut y voir l'indice d'une base commune non aryenne."

CAPUS, G.—Bulletins de la Société d'anthropologie de Paris, 1890. Vol. 1, p. 250—272.—Kâfirs Siahpouches.—The article repeats some of the information given in previous articles above referred to. The Kāfir music noted by him "est du rhythme trois quatre avec un mouvement de valse, et différe complètement de la mélodie sarte en se rapprochant de la kirghize." In the discussion following the lecture it is said "Si les Kâfirs ont réellement une numération vigesimale, leur langue serait la seule langue indo-européenne ayant une numération semblable."

CENTRAL ASIA, being a review of several books.—Quarterly Review, 1873.—All the scanty vocabularies professing to represent the languages of the Kāfirs, Kohistānis, Paghais and other pre-Afghān tribes of that mountain country shew a good deal in common with a good deal of divergence. \* \* \* \* Hear again the accurate Elphinstone, "There are several languages (dialects?) among the Kāfirs, but they have all mauy words in common, and all have a near connection with the Shanskrit. They have all one peculiarity, which is that they count by scores instead of by hundreds, and that their thousand, (which they call by the Persian or Pushtu name), consists of 400 or 20 score." It is suggested that the Ashpins of Kāfiristān may be the Aspasii, and the Ashkins the Assaceni of Alexander's historians.

CHURCH MISSIONARY INTELLIGENCER, see FAZL HAQQ.

CUNNINGHAM, SIE A.—Ladākh, Physical, with notices of surrounding countries, 1854.—Contains tables of comparison of various Alpine (Himalayan) dialects.

COURT, M. A. (Ancien élève de l'école Militaire de Saint Oyr, and in the army of the Maharājah of Lahore).—Alexander's exploits on the Western Banks of the Indus. Translated from the French for Journal Asiatic Society, Bengal, 1840.—His local information is based on the reports of men obtained at Peshāwur to spy out the country secretly.

He thinks the Mount Mahram, en route from Ashtnagar to Bunër, and 12 koss from Ashtnagar, may be Mount Meros of Arrian, and Nyssa, the present Achtnaggar, though there are probabilities against it.

It is said one Kirkat, a Kāfir, once ruled the country near Dīr, from which the Kāfirs were ejected by Mahomedans.

It was reported to him that "a city called Massanger, known also by thename of Maskhinē, exists on the Southern Frontier of Kāfiristān close otBaba Kara, 12 koss from Bajaor, and 4 koss from Mount Mahrām. The tribe called Assaceni exists in that country."

DOWNES, E. (C.M.S., Peahāwur.)-- $K\bar{a}\beta rist\bar{a}n$ , an account of the country, Lahore, 1873.—Contains a collection of 170 words prepared from vocabularies by various persons. The dialect is not stated. The words differ considerably from my collection.

DOWNES, E., and JOHNSON, E. C.—On the Siāh-pōsh Kāfirs, Ohurch Missionary Intelligencer, Volume X, 1874.—A summary of remarks on Kāfiristān. The above contains hardly any words in any Kāfir dialect.

ELIOT, SIE H. M.— History of India as told by its own historians, 1871, Volume III, page 389, "Malfūzāt-i-Timūrī."—Shows the invasion of the country of the Kators and Siāh-poahes from Paryān; mentions one village named Shokal and another Jorkal. Their ruler is Adalahu or Udashu. Their languago is distinct from Turki, Persian, Hindi, or Kashmīrī. On reaching Khāwak, Timūr repaired an old fort.

Timūr<sup>\*</sup> ordered an engraver in stone to cut an inscription somewhere on those defiles "to the effect that I had reached this country by such and such a route in the auspicious month of Ramazān A. H. 800" = May 1398.

In Volume II, Appendix, page 407, he thinks the body of troops known as Kators, organised by the <u>Ghaznivide</u> Sovereigns, the Kators of Kāfiristān, and the Kators of Kumāon may be connected.

<sup>•</sup> In Colonel Tanner's lecture on the Chuganis, (B.G.S., London), it is observed that it is quite impossible to make out the geography of Timur's routes in Käfiristän.

He mentions the Yuetchi (Tartar) invasion over the Hindū Kush into Afghānistān and Peshāwur. Chinese writers say that about 160 B.C.<sup>•</sup> the Yuetchi, (driven out by the Hioung-now), established themselves in Transoxiana.

Shortly after, the Yuetchi chief, Khieou-tsieou-hy, proclaimed himself king of all the countries between the Oxus, Hindū Kuah and Little Thibet. Subsequently the Yuetchi Monarch Ki-to-lo descended south of the Hindū Kuah to invade India about 200 A.D.

Here we seem to have the origin of the name Kator, \* \* \* \* on the very site of the modern Kāfiristān or land of the Siāh-poshes.

ELPHINSTONE, HON. M.—Account of the Kingdom of Caubul and its dependencies, 1839. Appendix C.—The Caufirs count by scores, not by hundreds. Their thousand, (which they call by the Persian and Pushtu name), consists of 400 or 20 score. This derivation of their language seems fatal to the descent of the Caufirs from the Greeks.\*

FAZL HAQQ and NORULLA.—Afghān Missionaries in Kāfiristān. Ohurch Missionary Intelligencer, December 1878, p. 724; being a reprint of an article published in 1865.

This gives a sample of a popular Kāfir song. A man in the village of Shinu has sold his son to Mahomedans. When the boy has grown up, he kills 14 Mahomedans, escapes to his home, and the mother in proud delight sings the following song :—

> Parolē bēlē batā warmē lawē Badal lowe bēlē anī batā lou sousawe. Ura pras sagor aman batā warmē lawē Awār paras dandako partus tatakotawe. Pa <u>sh</u>eristan gangare sutā.

"Well done, my lad! Well hast thou fought! My old blood was drying up for grief for thee, When thy father sold my high-spirited boy. And thou hast killed fourteen men and come home again, With the bolls tinkling on thy feet."

This apparently is the language spoken at Shaiderlam or Shino Begura, Nikera, etc. It is not stated what is the dialect. It does not tally with my collection.

<sup>•</sup> Mullah Najib made a vocabulary of Käfir words which was said to have been translated by Irvine. I have failed to trace this. Some writers have asserted that the Mullah never penetrated beyond the Nimoha country.

GARDNEE, ALEXANDER, COLONEL. - Memoirs of. London, 1898. - States • the Therbah tribe, who live ten days' march west of Käfiristän, intermarry with the Käfirs Siäh-pöah. Colonel Gardner, about 1826 A.D., visited the Khilti (Kti ?) race of Käfirs, (outer range and northern crest of Hindū Kuah), and got as far as the Ghour-i-pir Nimchu. There were shown to him "two marble inscriptions with Arabic characters engraved on them, said to have been presented by two kings who reigned at Delhi, viz., Mahomed Ghori, and Shähbudin Ghori. There was likewise a large slab of green marble, also with an inscription, said to have been presented by Timūr in person, when he attempted to invade Käfiristän, but got no further than this point. This memorial was erected in 1398."

According to the Pir, Scythia was the original cradle of the Kāfir race, and they claim one of the kings of the dynasty of Cyrus as their founder.

The whole of Badakhahān formerly was held by the Kāfirs.

In 1193, when the Mahomedan Government of India was founded, Kāfiristān was broken up, and Bada<u>khah</u>ān was the name given to that part from which the Kāfirs were expelled.

Colonel Gardner again visited Kāfiristān about 1829 A.D., but, unfortunately, the copious notes and diary which he made have been lost. He was informed that, about 1770 A.D., two Europeans (R.C. Missionaries) had resided and died in Kāfiristān.

GHEYN, VAN DEN.—Le Yidghah et le Yagnobi. Bruxelles, 1883.—La méthode de numération vigesimale n'est pas d'origine aryenne. Empruntée aux populations autochtones des Khaças (les Haspioi d'Herodote et les Kasioi de Ptolémée) et encore en usage chez les Khajūnas ou Booriahkis des Cantons de Yassin, Hunza, et Nagir, elle a fait invasion dans un certain nombre de dialectes eraniens de l'Hindou Kusch.

GOES, BENTODE.—Purchas S.; his Pilgrimes, Part III, 1625.—Although nothing regarding the language is recorded, it states that Benedictus Goes "equipped with a table of moveable feasts till the year A.D. 1610 left Lahore in Lent 1603." When in the neighbourhood of Peahāwur he was informed that "thirtye days off was a Citie named Capherstam (Kāfiristān) into which the Saracens are not permitted entrance, and, if they enter, are put to death. But merchants are admitted their Citie, yet not their Temples. Hee said the inhabitants of that region goe to Church all of them in black "Hereby Goes supposed that

they were Christians," an idea which Marco Polo also seems to have entertained.

GBIEBSON, G. A. (PH.D., C.I.E., I.C.S.)—Linguistic Survey, Governmont of India, Caloutta, 1899. The Kāfir Languages, outlines of Bashgali, Kalāsha, and Wasī-Vori or language of Veron. (Advanced proofs.)—The Siāh Pūsh Kāfirs, N. and N.W. of Kāfiristān, all speak varieties of one language, of which the Bashgali may be taken as a type.

Some of the Kāfir dialects, (those specified by Sir G. Robertson,) show sporadic instances of agreement with the Iranian languages, but the general phonetic structure of most of them is Indian. Their grammatical structure, however, varies from any Indian language. Seven pages are given to the Bashgali dialect and nine pages to the Wasi-Veri or language of Veron, (which is now written for the first time,) and ten pages to words and sentences in five languages including Bashgali and Wasi-Veri.

GEIERSON, G. A. (PHD., C.I.E., I.C.S.).—Linguistic Survey, Government of India, 1900. Pashai, Laghmānī or Dēhgānī. (Advanced proofs.)—The Pashai dialect is closely connected with Gewar-bati and Kalāsha, and has interesting points of relationship with Bashgalī and Wasi-Veri.

The infinitive of the verb, as in Khowar, ends in k.

The specimen translation of the story of the Prodigal Son seems to me to have far greater affinity to Khowār than to Bashgalī Kāfir.

About 23 per cent. of the words are identical with, and 17 per cent. somewhat similar to, the Waiguli of Lumsden and Burnes, and about 60 per cent. seem quite different.

GRIFFITH, W.—Journal of travel. London, 1847, Vol. I, p. 458.—Contains a short account of the Kāfirs from personal interviews near Katoor, (a short way N.W. of Chigar-serai), with Kāfirs from Arunaha, etc., and gives a vocabulary of 64 words. The dialect is not stated. The author says, "the mixture of Hindūstānī names is very curious indeed, particularly those names of things which, from being indigenous, one would suppose would have indigenous names." Some of his words are Chitrālī, others Persian ; about one-third of his words agree with mine.

DE GUIGNES.—Histoire Générale des Huns, des Turcs, etc. 1758.— Tamerlan fit graver sur les marbres l'histoire de son expédition avec l'époque de l'Hégire et celle dont se servent ces Barbares.

HOLDICH, COLONEL, T. H., C.B., C.I.E., Royal Engineers.—Geographical Society Journal, Vol. VII, 1896. "Origin of the Kāfirs of the Hind Aush." —Major Deane, C.S.I., has lately discovered some strange inscriptions on stone slabs in the Indus valley, east of Swät, which have been examined by a Congress of Orientalists who can only pronounce that they are in an unknown tongue. Possibly they may be of a vast age, for the opinion is pronounced that they recall a Greek alphabet of Archaic type, and it is a possibility that the characters inscribed may prove to be the forgotten form of the Nysscean dialect.

In a verse of a Kāfir war hymn quôted in the article, (one of a classical and Bacchic type), the references show that the Kāfirs owned part at least of Badakhahān, and revered the hill Meros, the mountain of Bacchus near Nyssa.

Kāfiristān has only been partly explored. Who can say what may be discovered in future explorations? The Kāfirs may perhaps in the future be proved to be "the modern representatives of that very ancient Western race, the Nyssœans, so ancient that the historians of Alexander refer to their origin as mythical."

HUGHES, REV. T. P., and SYED <u>SH</u>IH, Munshi.—Account of a visit of the latter to Kāfiristān. Church Missionary Intelligencer, July 1883.—" Today was the Kāfir Sabbath or Sunday, Aggar. No work is done on this day by men or women." The few Kāfir words which are given, all correspond with those in my collection.

JUKES, WORTHINGTON, REVD. (late of C.M.S.)—A manuscript vocabulary (about 30 pages) of Kāfir words and sentences, names of men, women, villages, rivers, etc., taken a few years ago, from a Kāfir who had left his country, for Laghmān, six years previously.—This collection agrees very fairly with mine, though some of the grammatical renderings differ.

In this collection Käfiristän is rendered by Katon gil (gol, gul?) "the Kator valley" (?).

KLAPROTH.-- Tableaux Historiques de l'Asia, 1876, p. 132, etc.-- The language of the Petits Yue-tchi was identical with that of the Khiangs or Thibetans. The ancients knew them as the Indo-Scythians. Their capital was Kian-chy-tching, and their chief abode, south of the Oxus, known as Koei and Gooi.

LASSEN, C.—Indische Alterthumskunde, 1867.—Has very interesting chapters on the history of the countries near the sources of the Upper Oxus.

LEECH, R., LIEUT., R.E.—Journal Asiatic Society, Bengal, August 1838, and Transactions, Bombay Geographical Society, Vol. I.—This contains a vocabulary of Pashai words—168 words, 20 numerals, 9 short sentences—

spoken by the inhabitants of Mandal, Chiteln, Parena, Kündi, Seva, Kulmän. About one-sixth agree somewhat with my collection of Bashgali, and about one-third are common to Urdū or Persian, as, ghoda, ghodā, horse, mare;  $g\bar{a}l$ , abuse;  $d\bar{a}ru$ , powder; gom, wheat.

The numerals 1 to 20 are in many cases almost identical with Persian or Urdū; and one-eighth of the words agree with Lumsden's Waigulī.

Mr. J. Bird observes (Bo. Geo. Soc., Vol. I, p. 403) the Paahai language is of special interest in connection with the Pasiani, who, with the Asii and others, overturned the Greek Kingdom of Bactria 125 B.C. He thinks the languages of Kāfiristān, Paahai, Chitrāl have a common origin in a Sanscrit or Persian language, probably the Zend.

LEITNER, DR. G. W.-Languages and Races of Dārdistān, 1877.-Treats of the Kalāsha \* language, not of the dialects spoken by people in Kāfiristān proper.

LEITNER, DR. G. W.—Lecture on the Bashgalīs and their language. —Journal United Service Institute (Simla), 1880.—This treats of the Kalāsha dialect, i.e., the language spoken by the Kāfirs who reside, not in the Bashgal valley of Kāfirīstān, but in Chitrāl territory and are subjects of the ruler of Chitrāl. It has a fairly close resemblance to the Chitrālī dialect or Kho-wār, including the infinitive of the verb which, (as in Khowār,) ends in k.

LEITNEE, DE. G. W.—Dārdistān in 1866, 1886, and 1893,—At p. 33 is a Bashgalī prayer in the Kalasha dialect. It is largely Chitrālī and Urdā. Dr. Leitner says, (in regard to the word Kator), Bāba Áyub, a Khorassānī adventurer, established the Chitrāl dynasty and took the name Kator, whence the dynasty is called Katori. Kator has been said by some to be Kitolo, the king of the great Yuetchi, about 420 A.D., who conquered Balkh.

LEITNER, DE. G. W.-Kāfiristān and the Khalifa Question, 1895.-Considers the Kāfirs must be ancient Greeks.

Recently the Afghans have destroyed over 150 temples with innumerable ancestral carvings showing Greek traditions.

LEITNER, DE. G. W.—Journal Society of Arts, 1897.—There is much yet to learn about Kāfiristān. Alexander the Great advancing against Nyssa,

<sup>\*</sup>Sir H. Rawlinson (Journal R. G. S. XLII of 1872) says the Sanscrit Kalika, "dark-coloured," (from which possibly the word Kaläsha arises), may be the origin of the term Siāk posk (wearing black) and possibly may be the Calcias of Goes.

the heart of Greek Kāfiristān, discovered its inhabitants to be descendants of very ancient Greeks. The Kāfirs are essentially pagan of the classical type, and more resemble Europeans than any Asiatic race.

LUDWIG, GEORGE VON —.— Travels through Upper Asia from Kashgār, Tashbalyk, Bolor, Bada<u>khshān</u>, Va<u>kh</u>īn, etc. R.G.S., 1866.— This work has been described by some noted geographers as untrustworthy.

He gives certain Kāfir words, e.g.-

| Imra amu,                | God's house, Temple. |
|--------------------------|----------------------|
| busibo,                  | bustard.             |
| gabsu,                   | copper.              |
| danep,                   | goat's wool cloth.   |
| marilpan,                | golden.              |
| yashi,                   | jasper.              |
| omimir,                  | spring fog.          |
| Imra bolli ! Gish bolli. | exclamations.        |

He mentions a dialect known as Gobi.

He says he saw a stone pillar with an inscription on it in the valley of Luimka near Mustopan, (village of the Chashur Gobis). It is not stated what were the characters. Possibly this was not in Kāfiristān.

LUMSDEN, SIE H. B.—Mission to Candahar, 1860.—This gives a list of about 1,500 or 1,600 words and 19 short sentences in the dialects of Traieguma \* and Waigul. A great many differ from the Baahgali of my collection. The infinitive of the verb in his collection ends generally in  $n_{1}$  but sometimes in m, k, i or h. This termination being rejected, a root is left which sometimes coincides with the root in my collection, such as that of,—"to catch," "beat," "do," "drink." He says it is evident many of his words have Sanskrit roots. The article contains no grammar.

McCBINDLE, J. W.—Ancient India as described by Ptolemy. Calcutta, 1885.—The Sakai were located east of the Sogdiani, under Mounts Askanimia and Komedus, of which the ascent lies in 125°, 43°. Ptolemy describes them, (vide Ptolemy's map No. 7), as nomadic, dwelling in woods and caves. Their tribes were the Karatai and Komaroi, both along the Jaxartes; Komedai + residing in mountains; the Massagetai ‡ along the range of the



<sup>•</sup> Traieguma in his map is 16 miles north of Chigar Serai, and Waigul is 16 miles further north.

<sup>&</sup>lt;sup>†</sup> Some say the Komedai whose valley was located in 130°, 39° were the ancestors of the Käfirs. A critic in the *Times* says the Käfirs may be identical with the Sibae of Strabo. See the article Sibae in Dictionary of Greek and Roman Geography by W. Smith, D.C.L., LL.D.

<sup>1</sup> Moeso Gothie Maiza and Yuetchi Geta.

Askatangas \*; the Graynaio Skythai; Toornai; and Byltai near Mount Imaios, i.e., Baltistan or Little Thibet. The Sakai therefore appear to have been the mountaineers of Kāfiristān, Badakhahān, Shignān, Roahān, and Baltistan. Their boundaries were : west, the Sogdiani ; north, Skythia. along the line parallel to the Jaxartes, so far as the limit of the country which lies in 130° E. and 49° N.; east by Skythia along the meridian lines prolonged from thence and through the adjacent range of mountains called Askatangas, as far as the station at Mount Imaios, whence traders start on their journey to Seres, and through Mount Imaios as it ascends to the north as far as the limit to the country, viz., 143° E., 35° N.; south by Imaios itself along the line adjoining the limits that have been stated.

Beyond the valleys at the foot of mountains Askanimia and Komedus and the village which they call Lithinon purgon "stone tower," (lying in 135°, 43°), lies the very long road by which traders pursue their journey towards Seres, Serica (?).

MCCRINDLE, J. W.-Invasion of India by Alexander the Great. Westminster, 1896 .- The districts through which Alexander passed are now called Käfiristän, Chitral, Swät, etc. " It is more difficult to trace in this than in any other of his campaigns the course of his movements, and to identify with certainty the various strongholds which he attacked A glance at the labyrinth of mountains and valleys which occupy the whole space in question in the best modern maps will sufficiently show how utterly bewildering they must have been to the officers of Alexander, who neither used maps nor a compass, and were incapable of the simplest geographical observations." (Page 61.)

MCNAIR, W. W. (F.R.G.S.).-Explorations in part of Eastern Af<u>ah</u>ānistān and Kāfiristān, 1883.—This gives a vocabulary of about 108 Kāfir words, 28 numerals, and 7 short sentences. The numerals agree with mine, as do half the words, and most of the grammar of his sentences. Some of the words tally with those of Sir H. Lumsden and Sir A. Burnes (Waiguli). Many are different from any Käfir collection which I have seen, or from Sir A. Burnes' Pashai collection. The monument ordered to be erected by Timur was reported in 1883 to be in existence between the forts of Pushian † and Kurban.

MASSON, CHARLES.— Narrative of various journeys in Belochistan, Afahānistān, etc., 1842, see also in Bombay Geographical Society's transactions

The central syllable is the Turkish word Tagh, mountain.
 If so, it is close to Khāwak and on the fringe of, if inside, Kāfiristān.

Vol. V.—It is not until 1399 A.D. that the Siāh-pōsh are recognised by name. He refers to the "Kāfir epocha" which Timur discovered (vide Timūr,) and the interest as to whether the Kāfirs still preserve it; and notes the fact that Timur's Expedition was hardly a conquest, as he had to beat a hasty retreat. He alludes to Baber's Expedition to Birain (probably Veron), and notes that from that time up to Elphinstone's Account, 1839, nothing is heard of the Kāfirs, except the erroneous accounts, (1603), by Goes.

MOHUN LALL.—Travels in Punjab, Afghānistān, etc., London, 1846.— Contains a notice of the Siah-pösh Kāfirs, but very little as regards their language.

MOORCROFT (WILLIAM) and TREPECK (GEORGE).—Travels in the Himalayan Provinces, etc., etc., Kābul-Kanduz, Bokhāra, 1841.—The district of Gilgit is inhabited by Dardus, evidently the Dāradas of Sanskrit geography, and Daradæ or Daradræ of Strabo. They are also no doubt the Kāfirs of the Mahomedans, although they have of late been nominally converted to Islām.

MULLÄH NAJIB.—In "Kingdom of Cabul" (Elphinstone) it is stated Mulläh Najib wrote a vocabulary (translated by Irvine) of the language at Kämdēsh. I have failed to trace it in London.

NOBRIS, E.—Journal Asiatic Society, Bengal, 1862.—This collection of about 90 words obtained from a Kāfir in Tehērān is considerably different from my vocabulary, but about one half agrees, in a measure, with the collection of Burnes and Lumsden. In his collection one hundred is chal, and one thousand,  $haz\bar{a}r$ . His infinitives end in s, as, veeyaus, to .beat.

NOBULLA, see FAZL HAQQ.

PAUTHIER, M. G.—Le Livre de Marco Polo, dictated in 1298. Published, Paris, 1839.—" Il est voirs que dix journées vers midi loings de Balacian, une province qui s'appelle Bacian, qui ont langue par eus et sont ydolastres et sont brunes genz; ils scevent moult d'enchantement et d'art diabolique. Ils sont malicieuse gent et sage de leur coustumes. Cette province est moult *chaude* (froide ?). Leur viaude est char et ris." Pauthier, in a foot-note, argues that Bacian must have been Paschiai<sup>\*</sup> in Kāfiristān, with its dialect known as Pachai (Bachai). He refers to a statement of the Emperor Bāber regarding a small river "flowing from

\* Masson thinks this cannot be the case.

#### BIBLIOGRAPHY.

the west, which traverses Pich,<sup>\*</sup> a country of Kāfiristān. When I took • Chigar Serai the Kāfirs of Pich came to their aid, men who were great drinkers of wine; they fear neither God † nor man, and are heathenish in their customs." Pauthier says: "the Bacian of Marco Polo and Pich of Båber are probably one and the same."

PRITCHAED, J. C.-Researches into the Physical History of Mankind, 1844, Volume IV, Chapter XII, Section V. Of the Siāh Pōsh or Kāfirs of the Hindū Kush.—Their language is nearly allied to the Sanscrit. The Isaghmānī or Dehgānī language is said to be a Kāfir dialect. The Siāhpōsh, judging from their language, "belong to the Indian race, and the language which has long been a learned and dead language in Hindūstān is still preserved in a peculiar dialect among the mountaineers of the Hindū Cancasus."

There is strong evidence that the Sanscrit language, or a peculiar modification of it, was the idiom of the ancestors of the Kāfir race.

He gives a vocabulary of 23 words of the Siāh-põ<u>sh</u>, which very much resemble the Sanscrit. Twenty of the words are the same as those in my vocabulary of sentences.

This book quotes a communication by Ritter to the Berlin Geographical Society, May 1839, "Einige ethnographische Mittheilungen über die Siäh Pösh von Alexander Burnes" printed in the "Monatsbericht über die Verhandlungen der Gesellschaft für Erdkunde."

In the latter paper are some remarks by Professor Bopp on specimens of the Siāh Pösh language.

DE QUATREFAGES.—Histoire générale de la race humaine, Paris, 1889. —He classifies the Siäh-pösh as—

| Trunc,   | blanc ou caucasique. | [ | Famille, | Hindoue. |
|----------|----------------------|---|----------|----------|
| Branche, | Aryane.              |   | Groupe,  | Mamogi.  |
| Rameau,  | Indo-Européen.       |   |          |          |

**BAVERTY, CAPTAIN H. G.**—On the languages of the Siāh-posh Kāfirs. —Journal, Asiatic Society, Bengal, 1864, p. 267.—Disagrees with Dr.

<sup>\*</sup> Pich, is believed to be Kama in modern maps.

<sup>†</sup> Colonel Yule says the Pashais, though now Mahomedans are reckoned among the aboriginal tribes of the country, which the Afghans are not.

Trumpp in various essentials. It is not stated which of the Siāh-pöch dialects he employs. He thinks his collection of about 150 words, and those of Mr. Norris and Sir A. Burnes, tally, generally speaking. Raverty's collection of words and construction of sentences do not agree very well with mine. He gives a short list of words in the Pashai dialect, spoken in the country south-west of Kāfiristān. Nearly all these words are contained in Leech's collection of 1838: about one-third are similar to his (Raverty's) Siāh-pöch words. About half his Siāh-pöch words and about half his Pashai words agree with the Waiguli' of Lumsden. He says the Pashais are the aborigines of the country.

RAVERTY, MAJOE H. G.—Kāfiristān and the Kāfir Tribes. Calcutta Review, July 1896.—Contains an excellent outline of the history of Kāfiristān, the Hinduān-i-Kator and the Siāh-pōsh tribes. The Kāfiris of Tibbat are also referred to.

ROBERTSON, SIR G. S., K.C.S.I.—Kāfiristān and its People. London, 1895, and The Kāfirs of the Hindū Kush. London, 1896.—The conclusion is arrived at that the dominant races of Kāfiristān, the Katirs Kām, and Wai, are descended from the old original population of East Afghānistān who refused to accept the Mahomedan faith about 950 A.D. Traditions are recorded that the Presuns are an aboriginal race; that the Kām were originally Sālārzais or Koresh; that the Kāfirs extended as far as Swāt, and that the Kalāsh extended to Gilgit. They have no admixture of Tartar blood.

The following is his list of tribes :---

|            | Katirs of Bashgal Valley,                                    | 12 v | illages. | )          |
|------------|--------------------------------------------------------------|------|----------|------------|
|            | Ktī or K <b>a</b> twār,                                      | 2    | do.      |            |
| l. Katirs  | Kulam,                                                       | 4    | do.      |            |
|            | Rāmgalis or Gabaraks, on<br>borders of Af <u>gh</u> ānistān. | 24   | do       | Siāh-pōah. |
| 2. Mādugā  | <b>.</b> ],                                                  | 3    | do.      |            |
| 3. Kashta  | n or Kashtor,                                                | 1    | do.      | - ,        |
| 4. Kām (E  | saahgal and other valleys),                                  | 7    | do.      |            |
| 5. Istrat, | •                                                            | 1    | do.      |            |

6. Presun or Viron; a very ancient people, inhabiting 6 villages, speaking a language different from the Siāh-poah, a language which, according to the Kām opinion, "no one can ever learn." They differ from the Wai or Ashkun.

Safed-posh.

- 7. Wai; in 10 villages; their language differs from the Siäh-pösh or Presun.
- 8. Ashkun; in 2 villages; their language is somewhat like the Wai.

"That the Kāfirs are made up of different races, appears certain: that they have no admixture of Tartar blood seems obvious ; that they came from the west, or at least the great majority of them, is their own fixed idea and is more than probable."

Describing the women's head dress and its appurtenances-he says, "I have seen on the brass thimbles short English expressions such as 'For a good girl.' These were the only printed or written words I ever found in Kāfiristan."

**ROBERTSON, SIE G. S.**—Manuscript vocabulary of words, outlines of grammar, and sentences, and idioms; Kāfir into English, 1896-7.—This is the most comprehensive collection which I have seen, and contains many valuable idioms. I understand that in all essential matters Sir G. Robertson's collection agrees with mine.

SIDIE ISFAHINI.—Geographical works of.—No. II.—Takwim-al-Baldān. London, 1832.—This, (written about 1635), mentions Katūr (or Siāh pöshān, the country of persons who wear black clothes), situated on the confines of Kābul.

SYUD SHAH, Munshi, vide HUGHES, REVD.

TANNER, MAJOR.—Kāfiristān and the Kāfir language. Pro. R.G.S., Vol. I of 1879, p. 713.—The language of the Chuganis is like that of the Kāfirs.

Mr. W. Jenkins, Assistant to Sir L. Cavagnari in Kābul, was, at the time of his death, employed in working up the language of Kāfiristān.

TANNEE, COLONEL H. C.—Notes on the Chuganis and neighbouring tribes of Käfiristän. Pro. Boyal Geographical Society, 1881, p. 279.—In the preparatory remarks on the above lecture, Dr. Cust stated that the purely philological portion of Colonel Tanner's notes was reserved to be dealt with by Dr. E. Trumpp (Professor of Munich), and would be published by the Boyal Asiatic Society, Colonel Tanner gives a few

N 2

sentences "in the language of the Käfirs as near as I have been able to pick it up." These exhibit 25 words, some of which are Urdü, others Sanskrit. The grammar does not tally with mine. It is not stated what dialect was employed.

By the kindness of Dr. Cust I have been able to inspect Colonel Tanner's collection of manuscript papers on the Dehgano or Darah Nüri dialect of the Laghman language and on the language of the Sañu Kafirs.

The Darah Nüri collection consists of about fifteen foolscap pages of words and sentences. Many words are similar to the Persian; a few only, including the system of numeration, e.g., painjwea  $(5 \times 20)$ , are similar to those in my Bashgali collection. The grammar differs from mine, the infinitive ending in k.

The collection of specimens of the language spoken by the Sañu or Wām tribe of Lāl Kāfirs, (as taken down from a man of the Chugani tribe), comprises about 170 words and 70 short sentences, as spoken in "Sañuglam, a town situated at the head of a valley that flows Northward from the Kund Mountains into Darah Pech. The Sañus are enemies of the neighbouring tribes of Katawār Kāfirs, and do not understand their language."

About one-third of the words are very similar to those in my collection. The terminals of some tenses of the verbs (notably the future) agree with my examples.

About half of the words, as shown in a comparative table drawn up by Professor E. Trumpp, who recently saw the collection, agree more or less with the words in his work referred to on p. 182.

About twenty per cent. of the words are similar to corresponding words in the Waiguli collection of Sir H. Lumsden.

Hardly any of the words correspond with the Wasi-Veri or Veron language as recorded by Dr. Grierson.

THEENTIEF.—Russia and England in Asia. 1875. Translated by Daukes, Calcutta, 1876.—He gives a specimen of the Bolor or Kāfir language (see Appendix IV). It does not correspond with my collection. Terentief says the Siāh-pōsh style themselves Bolors; he thinks they are descendants of 20,000 slaves (Sklabinoî) who emigrated in 664 A.D. to Syria, and that Russia is therefore specially interested in them, an hypothesis which his translator and other critics consider untenable.

TIMŪR BEG.—History of, by Cherefeddin Ali; translated into French by Mons. Petits de la Croix.—Timūr invaded the country of the Ketuers and Siāh-pöah in A.D. 1398. The difficulties encountered in getting the horses over the Käfiristän Hills are well described. Timur observes : "The infidels of this country were as strong as the giants of the people of Aad; they go all naked : they have a peculiar language hitherto unknown which is neither Persian, nor Turkish, nor Indian, and know no other than this: but for the inhabitants of some neighbouring places, who are found there by chance, and having acquired their language can act as interpreters, no one could understand them. Their kings are known as Oda and On the Siah-posh men promising to abjure idols and Odachouh." embrace the Mahomedan religion, Timur gave them clothes and encouraged them with affectionate speeches. But these wretches, whose hearts were as black as their garments, fell on one of his regiments, which they almost annihilated. Timur's army then put to death a large number of the Kāfirs, carrying away women and children. They built towers on the top of the mountain and end of the bridge, with the heads of the traitors who had never bowed the head to adore the true God.

Timūr ordered to be engraved in marble the history of his. action, month of Ramadāu, A.D. 1398, and he added the peculiar "epocha" which this people used.

The pillar so inscribed gave the greater pleasure to Timur, as these people had never been conquered by any king, not even by Alexander the Great.

Caouc is mentioned as a town of the Ketuers which Timur rebuilt.

Besides the words above quoted, he gives no specimens of the language as then spoken.

TOMASCHEE.—Contral-Asiatische Studien : I, Sogdiana, 1877. II, Die Pamir-Dialekte, 1880. Published in the Sitzungsberichte, Imperial Academy, Vienna.—Has 3 curious ancient maps of the countries which bound Käfiristän north and east and west. The Kaläsha dialect is the bridge between the cultivated Arnya<sup>•</sup> and rough west Käfir dialects. It has many traces, though rough, of the old Veda dialect. The book has interesting remarks tracing some of the Kaläsha and Bashgali words to their origin.

TOMASCHBE.—Art. in Enc. Ersch. and Gruber, 1882 (quoted by Mons. G. M. Capus in "Le Kafiristan et les Kafirs Siah-pouches." Roue Scientifique, 1889).—The Käfir is a Prakrit language; it has a predilection for nasal vowels, "aspirations et cerebrals," with one peculiarity, vis.,

\* Arnya, the language spoken in Chitral, Yassin.

the frequent omission of a final r.<sup>•</sup> The Käfirs count by twenties, as is the case in all the languages of the Pämirs and Hindū Kush. Thus they have a common non-Aryan base.

The Käfir language and Chiträll, compared with the Prakrit literature of Central India, have conserved some of the most ancient forms of the Aryan epoch.

TRUMPP, REVD. E., D.PHIL.—On the language of the so-called Käfirs of the Indian Caucasus. Journal Royal Asiatic Society, Vol. XIX, 1862.—His opportunities for conversing with three Käfirs, (which dialect is not stated,) "extended to a few days or rather hours." The words collected and the grammar, (notably the pronouns, some numerals, and the peculiarity of the future tense of the verb,) differ a good deal from my collection. Burnes, Raverty, and Trumpp are at considerable variance. About 36 per cent. of Dr. Trumpp's words agree with the Waiguli of Lumsden and Burnes.

Dr. Trumpp remarks, "The Käfir tongue being a pure Prakrit dialect, separated from its sister dialects since the irruption of Mohammedan power, in the tenth century of our era, is of the greatest importance to Indian philology, as we have a very imperfect knowledge of the common dialects then in use in India. We may fairly infer that the dialect of the Käfirs has been preserved to us pure or very little altered in the course of time, as the Käfirs were quite cut off from all connexion with the other Indians, and hemmed in on all sides by impassable mountains, which enabled the fugitive race to defend their independence against all assaults on the part of the savage Pushto tribes which were settling down in their ancient seats."

Dr. Trumpp thinks the words collected by Sir A. Burnes are not Kāfir words but Kohistānī. He observes that, whereas in the Prakrit dialects of India, the adjective agrees with the substantive in gender and case, the Kāfir seems to incline rather to the Iranian than to the Prakrit of India. He doubts if nouns have any gender; adjectives are not subject to change for gender and case.

He remarks on the rarity of aspirates, showing an affinity to Iranian and Pughto.

He says the instrumental case is used. In the singular it is the same as the Nominative. In the plural it is formed by adding  $\tilde{e}$ .

<sup>\*</sup> See Grammar, paras. 22, 23.

UJFALVY, CH. E. DE.—Les Kafirs Siapochs. Bulletins de la Société d'anthropologie de Paris, Sér. III. Vol. VI, 1883, p. 621.—Les soldats. d'Alexandre réfugiés dans les régions inaccessibles de la vallée du Kuner sont du domaine de la Fable, comme l'assertion d'un certain savant russo; M. Téréntieff, qui voulait y voir des proches parents des aïeux des Slaves.

La vérité se dégage de toutes ces fictions et nous voyons que nous avons affaire, dans ces régions, à une espèce de Caucase, où les peuplades les plus différentes d'origine, de type, et de langue, se sont refugiées pour se soustraîre aux hordes barbares qui ont envahi successivement la Bactriane et la vallée de Caboul, etc. Pour le moment il y a quelque chose qui se détache nettement de toutes ces recherches; l'Hindou Kouch constitue une ligne de démarcation absolue entre deux groupes d'Aryens, qui, possédant certains points de contact au point de vue de la langue, sont séparés les uns des autres d'une façon absolue, par rapport à leur type physique. Leur patrie primitive n'a donc pas été dans ces régions et nous avons à chercher maintenant quelles sont les causes de cette similitude de langage à côté d'une dissemblance physique aussi prononcée.

UJFALVY, CHARLES E. DE.—Les Argens au Nord et au Sud de l'Hindou Kouch. Paris, 1896.—Contains an interesting account of Kāfiristān, etc. Dārdistān in ancient times was part of the kingdom of the Saces, or Grunaioi of Ptolemy, who adopted the Greek writing. This circumstance explains admirably the traces of Greeco-Buddhist sculpture and those of Greek traditions in Baltistān and Kāfiristān.

VIGNE, G. T.—Personal Narrative of a visit to Ghazni, Kābul and Afghānistān, 1840.—The Kāfir custom of exposing their dead appears to bespeak for them a descent from the Guebers of Persia. In the appendix is a vocabulary of 50 words and 30 numerals, including "one thousand,"  $20 \times 20$ . Many of the words agree with my collection.

WILFORD, CAPTAIN F.—On Mount Caucasus. Asiatic Researches, Vol. VI, 1801.—The term Caucasus, Coh-cas, applied to the mountains extending from India to the Euxine sea. The range was inhabited by Chasas. The mountains north-east of Cabul are the real Caucasus of Ptolemy, Cash-gar, or Chiträl, (as well as Badakhshān), is in the possession of the Chinese. Cash-gar is also Cashtwār, Katwār or Cuttore, which, however, differs from Kitwer or Catowr, which is 15 miles north-west of Chigerserai.

WOLFF, REVD. J. (D.D., LL.D.).—Narrative of a Mission to Bokhāra, 852.—The language of the Kāfir Seeah-posh s eems to be derived from the Sanskrit. A list of 9 words follows, most of which are in my collection. "Upon the heights of Badakhahān, (the border land between Badakhahān and Kāfiristān), are four free tribes of Israel, 'those of Naphtali, Dan, Zebulon, Asher."

WOLFF, REVD. J. (D.D., LL.D.)—Travels and adventures of, 1861.— "The Käfir Seeah-poah call themselves "Seema." Wolff cannot help thinking they are the remnants of the tribes of Israel, for the Jews in Bokhāra, \* \* \* \* \* \* \* \* \* (who assert that they belong to the ten tribes), say that these Kāfir Seeah-poah are their brethren, whose ancestors had entirely forgotten their law and fallen into idolatry, but into the ancient idolatry of the Philistines." They call God "Imrah," and worship the figure of a fish called Dagon. They have in their mountains the ten commandments written in stone, and their women observed the law of purification.

WOOD, JOHN.—Journey to sources of the Oxus, 1872.—He concludes that the Käfirs are probably of the same race as the Täjiks, the points in which they differ being the result of physical causes, not of blood.

YULE, COLONEL H., C.B.—In preface to "Journey to source of Oxus, (Wood), 1872."—This gives a description of the expulsion of the Yuetchi Thibetans, about 162 B.C., by the Hiongnu to the Valley of Ili; and, about 1 A.D., one of their princes. Kueishwang extends his rule over certain countries south of the Hindu Kuah—(the Indo-Scythic dominion). About 300 or 400 A.D., the Yuetchis or Yethas revive: a great warrior, King Kitol or Kitaur, conquers five nations north of Peshäwur, including Swät, and probably including Käfiristän.



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### APPENDIX II.

## Translation of 2 Samuel Xii, verses 1 to 6, in Persian, Pushto, Bada<u>kheh</u>i, Khowār (Chitrāli), and Bashgali.

### PERSIAN.

1. Wa Khudāvand Nathan rā nasd-i-Dāud firistād wa nasd-i-wai āmada aorā guft ki dar shaharē dū mard būdand yakē daulatmand wa digarē fakir.

2. Wa daulatmand rā gosfand wa gāo bi nihāyat bisyār būd.

3. Wa fakir rā jus ek māda barraē kochak na būd ki ān rā kharida wa parwarish dāda hamrāh wai wa pisarān ash buzurg mē shud az khūrāk-i wai mē khword wa as kāsa-i-o mē noshīd wa dar aghosh-ash me khwābīd wa birās ash misl-i dukhtar būd.

4. Wa -musāfirē nazd-i ān mard-i daulatmand āmad wa aorā haif āmad ki ās gosfandān wa gāwān i <u>kh</u>ud ba girad tā ba jihat-i musāfirē ki nazd-i wai āmada būd muhayyā sāzad; wa barra-i ān mard fakīr rā girifta barze ān mard ki nazd-i wai āmada bud muhayyā sā<u>kh</u>t.

5. Angāh Khoshm-i Dāud bar ān shakhs afrūkhta shuda ba Nathan guft Khudāvand kasam kasē ki īn kār rā karda ast mustājib-i katal ast.

6. Wa chūn ki in kār rā karda ast wa hech tarahum na namūda barra rā chahār chandān bāsd radd kunad.

#### PUSHTO.

1. No Khudāwand Nāgān Dāūd tah wāstāwuh, aw haghuh waraghš wartah wuh ye wēl chi pah yawa k<u>kh</u>ahr k<u>kkh</u> dwa sarī wū; lah dagho dwāro nah yo daulatmand aw bul <u>kh</u>wār wuh.

2. Aw haghah daulatmand bēhadda dērē mēgē aw ghwā laralė.

3. Aw haghah khwār hēte shai nah lārah magar yawa warūkī ērrai chi dah pērodilē aw sātalē wah; aw haghah lah dah aw da dah lah tsāmino sarsh lows shiwe wah; da dah lah nawarai ye khurala aw lah kāsī ye tekkhala aw da dah pah ghēg kkhh bah tsamlāstala aw da lūr pa shān ye wah.

4. Nõ haghah daulatmand sare lah yo musäfir rägh $\ddot{s}$ ; nõ haghah lah khpulo gadüro aw lah khpulo ghwāo lah ākhistalo nah zra sawe ukar ohe haghah musäfir che dah lah räghalē wuh tiyārē ukar e; nõ da haghah <u>kh</u>wār sari ērrai ye uniwulah aw hag<u>h</u>ah sari lah chi walah rāghale wuh tiyāra ye kralah.

5. No pah haghah sari bandi da Dāūd <u>kh</u>apagi dērah garma <u>sh</u>wula aw Nāgān tah ye uwi chi Yahwah hai dē chi daghah sare chi dā kār ye kare de zoi da marg de.

6. Aw da haghah ërri di <u>ts</u>lor gūna war ugarzawi <u>ts</u>aka chi dah dā kār ukar au zra sawe ye u nah kar.

#### BADAKHSHI.

The people of Bada<u>khshān</u> are stated to have adopted their present language during the last few centuries only. Until a few centuries ago it is said the Kāfirs ruled in Bada<u>khshān</u>.

The similarity of the Badakhahi language to Persian will be apparent from the translation of verse 3 of the preceding, kindly sent by Khān Sāhib Abdul Hakīm Khān.

3. Az hamu luchik <u>gh</u>air az yak <u>kh</u>urd barra chīzē na būd ki hamu rā parwaris<u>h</u> karda ba amrahi-e <u>kh</u>udi<u>sh</u> o ba<u>ch</u>a ā i<u>sh</u> kalān mē <u>sh</u>ud az nāne hamu mē <u>kh</u>urd ba kasa-i<u>sh</u> āb mē <u>kh</u>urd ba ba<u>gh</u>al-e hamu <u>kh</u>ab mē kard ba hamu du<u>kh</u>tar e <u>kh</u>ud wāri būd.

KHOWĀB, translated by Khān Sāhib Abdal Hakīm Khān.

 Khudāi Nathan o Daud o nasa weshēstai hassa hattogho nasa giti liu praš i shahra ju mosh astani i wāli quwating birai i wāli chān birai.

2. Hassa quwating o kēri o chi lyutpongi be-nehāyat bo birani.

3. Hassa chān mosh o i <u>ts</u>eq istri werkhu o sar <u>ghair kh</u>or kya ra<u>kh</u> no astai hatto<u>gh</u>o wāgh diti gani tan ta ha-lē astai hatto<u>gh</u>o o chi ta<u>gh</u>o gi<u>zh</u>awan sum hal bīti borda oshoi hatto<u>gh</u>o jibarm-ār jiba oshoi ochi hatto<u>gh</u>o <u>gh</u>ān a pia oshoi hatto<u>gh</u>o bi<u>ts</u> to poraoshoi oche to<u>gh</u>o te jūro chaga saria oshoi.

4. I musāfir hassa quwating o nasa hai; quwating hatte giru musāfir o pachin tan kērian ochi lyutpongiān sar kya ra<u>kh</u> gāni ku<u>s</u>hiko no <u>kh</u>oshētai; hassa chān mosho werku o gani hassa musāfir ki giru oshoi hatto<u>gh</u>o te prai.

5. Hatte wa<u>kh</u>t Daud-o qahar hassa mo<u>sh</u>-o-te hai, Nathan-o-te reitai, Khudāi o gōl kā ki haia korm kori asur hatte mo<u>sh</u>o māriko ba<u>sh</u>.

6. Hassa mosh ki haia kõrmo togho hardi no puli ki kori asur hastö werkhu e sar chör hissa siād kori haottgho te achi diār.

### TRANSLATIONS OF THE STORY OF NATHAN AND DAVID. 187

BASHGALI, translated by Khān Sāhib Abdul Hakim Khān.

Imrā Nathan-e Daud tā namia: aske asket-tā giji karas •
 God Nathan David to sent: he him to speech made.
 " e grom tā du manje asamme, e manji ārā azi, e kānowa
 " one city in two men were, one man rich was, one of no account azi.

was.

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2. Aske ārā ste tur<u>te</u>ð share gozhare belyuk azamme. That rich(one) to flocks(?) goats cows(?) many were. 3. Aske kānavaīni manje ishtri waki 8 azi. That of-no-account man to lamb one female Was kā mãri พลี่หอ na azi. aske, preti, anything other not it, money having given, was. dor bisi ingāti mêsh aske aske ste pitra mesh having taken nourished (?) him with him of children with olu bunazi; aske ste yuwā tā aske ste karudã pinazi : jв aske big grew; him.of food and him of cup did drink ; him pazhi pshunazi; aske ste ju ste bamri azi. to bosom in did sleep; him to daughter like was.

4. E vischā aske ārā manje tã ōze; aske ārā manje One traveller that rich to came; that rich man man turtsõ sharā dã gozharã dã aske vischā аð amoste goats of that traveller for own of flocks(?) of COWS aske nāluzva bidile manje 8**t 8** waki pretstage na kra ; to give (?) not made; that poor man from lamb pta." tã **ōzist**e manje ingāti amu having taken house to having come man (to) gave."

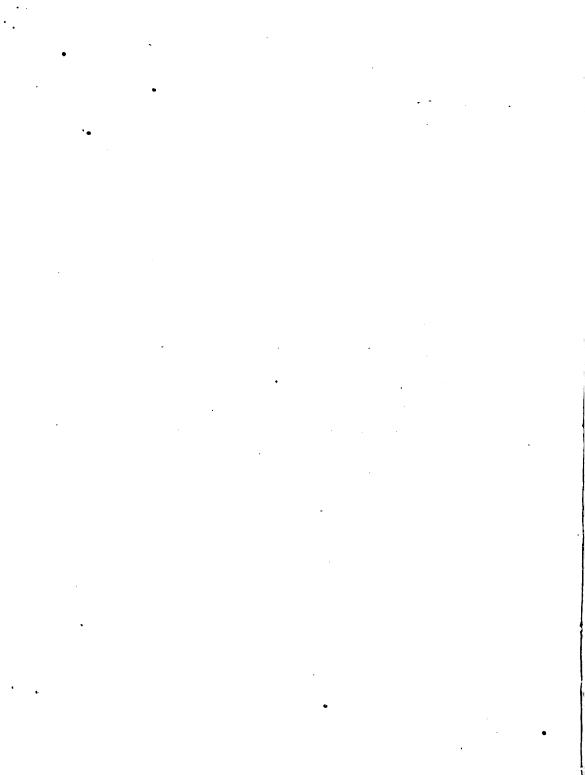
5. Aske wēl ta Daud-e aske manje patsir washe kra. time at David that That man upon wrath made. Nathan t**ä wi**laya "Imrā dugõ kudum ku inē karessa-bā "God for ! he who this work shall have done Nathan to said janastas.\*

shall die.

gitē kudyum karessaba je 6. Aske shishik na He (who) such work can have done and mercy not zaress shto parë aske perla." knew four fold to him shall give."

• jaristh az (?) to kill is appropriate, see paragraph 40.

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## or five Käfir dialects.

| Kāfir<br>disleot<br>(E.<br>Norris). | Traieguma<br>Kābr<br>(Sir H.<br>Lumsden). | Kalāsha<br>Kāfir<br>(Leitner). | Thibetan.         | Sanscrit.                        | Turkish.                 | Greek.            |  |
|-------------------------------------|-------------------------------------------|--------------------------------|-------------------|----------------------------------|--------------------------|-------------------|--|
| nīar                                | gudda                                     | gordokh                        | būngū             | khara                            | khār                     | onos              |  |
| •••                                 | eu; zu                                    | •••                            | swā               | yavah                            | ārpa                     | krithe            |  |
| berār                               | brāh                                      | baya ;<br>bay                  | spun              | bbrātā                           | birāde <b>r</b>          | phrator           |  |
| • •••                               | goieta                                    | gak                            | bā,<br>bālang     | gauķ                             | īnak                     | bous              |  |
| davali                              | dubli                                     | t <u>sh</u> nu                 | buino,            | putri, dubitā                    | kiz                      | thugater          |  |
| <b>s</b> oon                        | · tsun                                    | <u>sh</u> eon                  | khyi              | kukkurah, svā                    | <b>k y</b> ü <b>p</b> ek | kuo <b>n</b>      |  |
| ajeen                               | achi                                      | ēt <u>sh</u>                   | mig,<br>spyan     | ak <u>sh</u> i                   | ain                      | omma,<br>ophthal- |  |
| taula                               | fara                                      | bābū                           | pha, yab          | tātāķ                            | bābā                     | mos<br>pater      |  |
| p <b>ay</b>                         | kor                                       | kurr                           | rkangpa,<br>zhabs | pādah ( <i>hand</i> ,<br>karaḥ). | ayāk                     | pous              |  |
| 66                                  | ain ; ai                                  | angār                          | mē                | agniķ                            | āti <u>sh</u>            | pur               |  |
| 808                                 |                                           | moss                           | <u>sh</u> a       | mãsa, anna                       | ēt, lāhm                 | kreas             |  |
|                                     | chok                                      | t <u>sh</u> ui                 | <u>sh</u> ra, spu | kesah                            | tūē                      | kome              |  |
| gooah                               | goah                                      | ha <u>shsh</u>                 | sla               | asvaķ                            | āt                       | hippos            |  |
| mor                                 | hai                                       | aya                            | mā                | mātā 🕈                           | nīnah                    | meter,<br>maja    |  |
| •••                                 | wuh                                       | lõn                            | t <u>sh</u> ā     | lavaņam                          | tūs                      | hale              |  |
| sus                                 | sus                                       | bāba                           | achhe             | 87288                            | kizk <b>ar-</b><br>dāsh  | eores,            |  |
| •••                                 | tāvrāh                                    |                                | skarma            | tārā, rik <u>sh</u> am           | aa <u>sn</u><br>sitārah  | kasis<br>aster    |  |
| yar                                 | an                                        | ūg                             | chhu              | āpaḥ, uda                        | āb                       | hudor             |  |
| gūn                                 | gum                                       | •••                            | tro               | godbūma                          | gandum                   | puros             |  |
| mishi                               | mushai                                    | strija                         | bhomo             | stri                             | kāri                     | gune              |  |



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## APPENDIX IV.

## • The Lord's Prayer in the Bolor (Kāfir), language (Terentief), and remarks on the Bolor Country.

The following is a translation, as given in "Russia and England in Central Asia," (M.A. Terentief), of the Lord's Prayer into the "language of the Bolors or Siāh-pöah Kāfirs." It does not agree with the Waiguli or Baahgali dialect as recorded in any book which I have seen. \* There are no diacritical marks.

Babo vetu osesulvini. Malipatve egobunkvele egamalako. Ubukumkani bako mabuphike. Intando yako mayenzibe. Emkhlya beni, nyengokuba isenziva egulvini. Sipe namglya nye ukutiya kvetu kvemikhla igemikhla. Usikcolele isono zetu, nyengokuba nati siksolela abo basonaio tina. Unga singekisi ekulingveli zusisindise enkokhlakalveni, ngokuba bubobako ubukumkhani namandkhla nobungkvalisa, kude kube igunapakade. Amene.

Bolor has been called the will o' the wisp of geography and the symbol of controversy.

The following is a list, etc., of some of the many works which treat of it. PAUTHIEE.—Le livre de Marco Polo, 1307 A.D. Paris, 1865.

SHAW, R. B.—A Prince (Mirzā Haidar; Tarikh-i-Rashādi, 1843 A.D.) of Kashgār, on the Geography of Eastern Turkestan. R.G.S., Volume XLVI, of 1876.—Bolor is mentioned as co-terminous with the Yarkund Province of Raskam and Taghdumbāah. It included the present district of Kāfiristān. According to Mirzā Haidar the country of Bolor corresponded with Dārdistān.

KLAPBOTH.—Magasin Asiatique, 1825. Tome 1er.—Bolor is southeast of Yarkiang and east of Badakhshān, and Baltistān is south of it.

VIGNE, G. F.—Travels in Kashmir, Ladāk, etc., 1842.

HUMBOLDT.—Asie Centrale, Vol. II, p. 365.—Système des Montagnes du Bolor.

<sup>\*</sup> Since the above was written, a copy of the translation into the so-called Bolor or Sishpösh language has been kindly submitted by Dr. Grierson, C.I.E., to Professor E. Kuhn, of Munich, for examination. He has pronounced an opinion, that it seems to be an incorrect copy of the version of the Lord's Prayer in the language of the Ama-]loss Kaffirs of South Africa (see, for instance, Friedrich Müller's Grundriss der Sprachwissenschaft, I Band, I i Abtheilung (Pt. II), pp. 261-262). According to Müller's transcription (the sign) || represents the so-called "lateral elick" of the South African languages.



RAVERTY, CAPTAIN H. G.—Notes on Kāfiristān, Journal Asiatis • Sosiety, Bengal, 1859, and Account of Upper Qashqar, etc., Journal Asiatic Society, Bengal, 1864.

CUNNINGHAM, GENERAL SIE A.—Ancient Geography of India, 1871.— Bolor is little Thibet.

LUDWIG, GEORGE VON —.—" The Pamir and sources of Amu Darya, 1861," and "The Bolors and their Country, 1869," being articles written by M. Veniukoff, based on "Travels through Upper Asia from Kashgär, Iashbalyk, Bolor, Badakhshän, etc., by George Ludwig Von —," published in Journal of Imperial Geographical Society of St. Petersburgh and translated for Journal R.G.S., London, 1866.

This purports to be an account of a journey made about 1790 A.D., through various countries, including Käfiristän.

A map is given which locates the town of Bolor 130 miles north of the town of Chitral.

ABROWSMITH, J.—Map of Central Asia, 1834 ? 1840.—He had permission to examine and embody in his map certain information by George Ludwig Von—, which has since been shown to be misleading. In this map the town of Bolor is shown about 90 miles north of the town of Chitral, the Bolor river (rising near it) flowing about 100 miles to the north; and the Bolor range on its east, running for about 120 miles north and south.

**RAWLINSON**, MAJOR-GENERAL SIR H.—The Pāmir Region, Central Asia, Pro., R.G.S., Volume X, 1866, and Volume XVII, 1873. On Bada<u>khsh</u>än and Wa<u>kh</u>ān.—He considers the Memoirs by Veniukoff on the Pāmir Region and Bolor country are not to be trusted for certain reasons.

RAWLINSON, SIE H.—Quarterly Review, London, 1866.—Reviews a variety of writers, including George Ludwig Von —. He considers the information given regarding Bolor, Vakhān, Badakhahān "involved in inextricable confusion," etc., etc.

KHANIKOFF, M. DE.—Letter to B.G.S., London, in re the above criticients, 10th April, 1866. Pro. R.G.S., 1866.—He upholds Veniukoff and George Ludwig Von —, a map by whom is produced, dated 1806. Lord Strangford (Pro., R.G.S., 1866, p. 317) thinks Khanikoff's vindication untenable.

VENIUROFF, COLONEL.—Additional remarks, 1867, on the Bolor Highlands, translated from publications of Imperial Geographical Society St. Petersburgh, by T. Michell, Esq., R.G.S., Volume XIII. 1869.—This has

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a map which locates the town of Bolor 290 versts north of the town of Chitral and 100 versts east-north-east of the town of Badakhahan.

STRANGFORE VISCOUNT.—Pro., R.G.S., London, Volume XIII of 1868. -Severely criticises the papers above referred to by Veniukoff.

YULE, COLONEL H., C.B.—The Book of Ser Marco Polo (translated), London, 1871.—Marco Polo locates the country of Bolor E. N. E. of the Pamer, peopled by savage idolaters who "are in truth an evil race"; but, in a map of Marco Polo's itineraries at page 168 of Volume I, the town of Bolor is shown at least two degrees North of Kafiristan and two degrees West of Pamer. Bolor possibly included Balti and the mountains adjoining Pamer.

YULE, COLONEL H., C.B.-R.G.S., London, 1872, Volume XLII.-Regiews various works, devoting 7 pages to the proper locality of Bolor.

SHAW, R. B. (F.R.G.S.)-Central Asia in 1872. Pro., R.G.S., 1872. -The City of Bolor may now be allowed to "fade into a mist of confusion."

RAWLINSON, SIR H.—Monograph on the Oxus. Journal R.G.S., Volume XLII, 1872.—Part of this is written to show that there has been a series of misconceptions regarding the locality of Bolor, a name in use from 10th to 17th century, but obsolete ever since. It is the pivot for much spurious geography in Central Asia.

MICHELL, R.—Russian Expedition to Alai and Pamirs. R.G.S., Volume XLVII, 1877.

**YEARSE**, MAJOB H.—Memoirs of Alexander Gardner, 1898.

BIDDULPH, COLONEL.—Tribes of the Hindoo Koosh: 1880.—Bolor had its centre in Skardo, which is commonly called Palor, or Balors or Baloruts.

HOLDICH, COLONEL SIR T. (R.E.)—Proceedings Pāmir Boundary Commission of 1896, Calcutta, 1897.—The name of the great meridional watershed dividing the Oxus basin from the plains of Kaahgār has varied through different periods of history. Its classical name was Taurus and its medieval name Bolor Tagh; in more recent years the Nezatash or Pāmir or Sindi Range; and latterly Sarikõl. It now forms China's west boundary. The Pāmirs formed part of the medieval kingdom of Bolor, which again was part of the Yuchi Empire of Tokharistan. The limits of Bolor are clearly given in the Tarikh-i-Rashīdi by Mirzā Haidar, cousin of the Emperor Bābar. The country of Bolor then (1525 A.D.) was bounded east by Kashgār and Yarkand, north by Badakhaban, west by Kābul, and south by Kashmir. It was inhabited by a class of idolatrous people whose description agrees with that of the Käfirs of the present day. It evidently then included Käfiristän.

ALBERUNI'S India, (written about A.D. 1000).— Sachau's Translation. Vol. I, p. 207.—Leaving the ravine, by which you enter Kashmir, and entering the plateau, then you have for a march of two more days on your left the mountains of Bolor and Shamilân, Turkish tribes who are called *Bhattavaryan*. Their king has the title Bhatta Shah. Their towns are Gilgit, Aswira, and Shiltâs, and their language is the Turkish.

BARON CUBZON OF KEDLESTON.—The Pāmirs and the Source of the Oxus, 1898.—Very many authorities are quoted, and the opinion arrived at that Bolor included Kāfiristān, Upper Chitrāl, Yāsin, Gilgit and Hunza Nagar.



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### APPENDIX V.

The following prayers, etc., in the Kāmik (Kamdesh?) dialect have been procured by C. Rose, Esq., Superintendent, Postal Service, Chitral :----

- 1. Ae Imrā, nirmalla ! tã salām ! tu Tu paidā Oh God, creator ! Thee to salām ! Thoa created mizboh; le kars; wargas. hast made me; thou art seated above; good do to me.
- 2. Mekessi shay lish karmāeo ne Clouds, wife of a prophet, wherever you will sit 0 ho ho, karmāeo karmāeo. bhim oh ho ho! wife of a prophet, wife of a prophet, the earth Mirro (Imro?) agol utē. ne naylish. will flourish (be green). Oh God rain give.
- Tu māleh. 8. รนท Oyo māre rānjā. Of thee of gold (is) crown. Than all greater thou art. mäleh. Tu Imro! 8UN sun māleh. Of thee of gold (is) crown. Oh God! of gold (thy) crown. Mirro (Imro?) 80 **ก**ติ trān. Oh God ! of gold (is) thy throne (?).
- 4. PRAYER FOR ONESELF-

darboh. Imroh Imrā emo kurān darboh. Oh God! to us do good. Oh God! to our children do good. Emo ishtri darboh. Emo balo<u>ah</u> ara To our wives do good. To us much wealth Emo pisão. Ema atra wargas. le do (give) for us. Of us enemy destroy. To us good Emo kati Emau dī wargas. le gas. gâ Of us harvest bring. Of us herds do. good too dasho le gas; dī lø yas. good make; goats also good make

|     | Prayer B<br>Bālam                     | Gish                     |             |                            | bo !          | Sotro                  | 1                       |
|-----|---------------------------------------|--------------------------|-------------|----------------------------|---------------|------------------------|-------------------------|
|     | War                                   | God !                    | thou        | before (u                  | s) ∙be! C     | f twice our            | number                  |
|     | <b>pro</b> bo                         | n !                      |             | Gish                       | . <b>*</b> tu | <u>sh</u> a            | \$                      |
|     | the streng                            | th give !                | Oh V        | Var-god !                  | of thee       | head (in               | name of)                |
|     | wam (win<br>I strik                   | •                        |             |                            |               |                        |                         |
| 6.  | IMPRECAT                              | ION-                     |             |                            |               |                        |                         |
|     |                                       | Imro ?) !                |             | pisão.                     |               |                        |                         |
|     | Oh G                                  | łod !                    | him         | kill.                      |               |                        |                         |
| 7   | Prayer b                              |                          |             |                            | T A 36430-    |                        |                         |
| ••  |                                       | askē                     |             |                            | usht o        |                        | jasht                   |
|     |                                       |                          |             | us in .                    | hand          | jo ema<br>( <b>?</b> ) | to kill                 |
|     | machhi                                |                          | 01          |                            | Lalu          | (•)                    |                         |
|     | deliver u                             |                          |             |                            |               |                        |                         |
|     | Oh God !<br>nätayan.                  | I fee<br>Imra            | ble<br>! tu | man a<br>aske p            | m.<br>isāo.   | Ista<br>Of me n        |                         |
|     | feeble is.                            | Oh God                   | ! tho       | ı him k                    | ill.          |                        |                         |
| 9.  | GBACE AI                              | FTER KILL                | ING A       | MAN                        |               |                        |                         |
|     | $Tar{u}$                              | koron                    | kı          | ut.                        |               |                        |                         |
|     | Thou b                                | lessing (?               | ) maa       | lest ( <i>i.e</i> ., 1     | by thy gr     | ace we kille           | d him).                 |
|     | HYNN OI                               | R REIOLUIN               | a TO (      | -                          | P VILLING     | An Enemy               | ·                       |
| 10. |                                       |                          |             | t <b>r</b> o               |               |                        |                         |
| 10. |                                       | chan                     |             |                            |               |                        |                         |
| 10. | <b>S</b> onē                          | chen<br>eved             |             |                            |               | Gish!<br>Oh Gisl       |                         |
| 10. | Sonē<br>Of gold                       | eyed                     |             | r (thou)                   | the son       | . Oh Gir               | h! Thee                 |
| 10. | Sonē<br>Of gold<br><u>sh</u> o        | eyed<br>wao              | mothe       | r (thou)<br>u <u>sh</u> ro | the son       | . Oh Gin<br>alao       | h! Thee<br><u>sh</u> ai |
| 10. | Sonē<br>Of gold<br><u>sho</u><br>news | eyed<br>wao<br>again (?) | mothe       | r (thou)<br>u <u>sh</u> ro | the son       | . Oh Gir               | h! Thee<br><u>sh</u> ai |

\* When delivering a stroke.

<sup>†</sup> We recall thou usedst to cut off the heads of pumpkins (certain enemies) as easily as a man strikes a ball.

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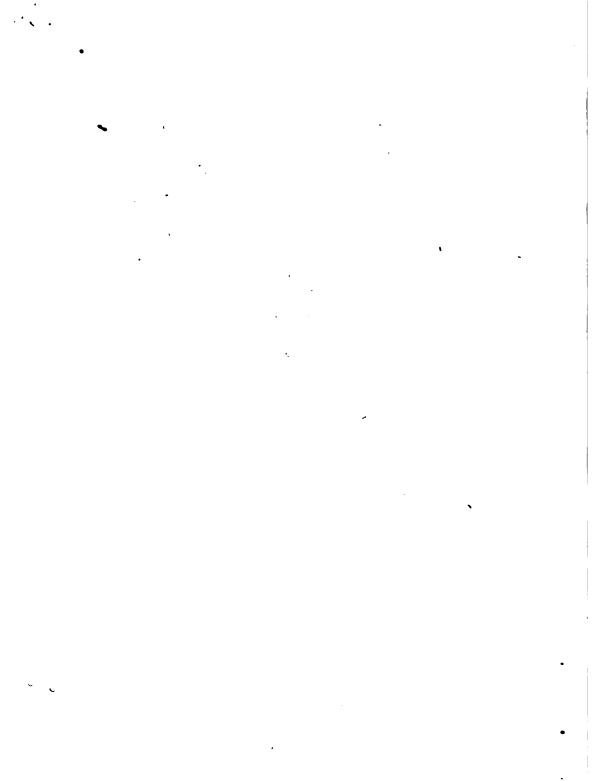
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The following is the only Kāfir story which Mr. Rose was able to procure :---

### Story of the Moon.

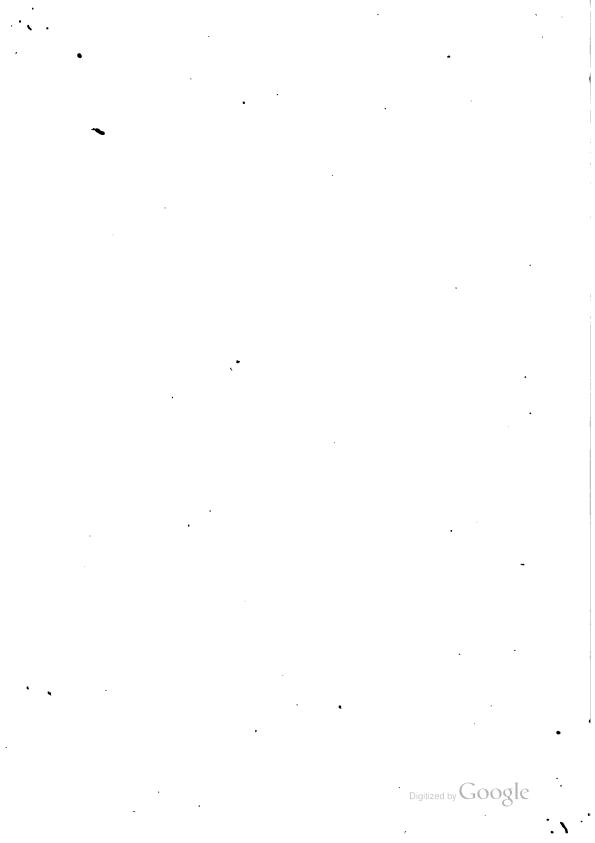
One day the sun and moon were bathing in a tank, when a man, carrying a bedstead, and his dog, passed by, returning from his field. They asked him which of them, (the sun or moon), was the more beautiful. He replied that both were equally beautiful; but again and again they asked him, and finally he said that the sun was a little more beautiful than the moon. On hearing this, the moon became angry, and took the man, with his bedstead and dog, away to the sky, where they still live in the moon

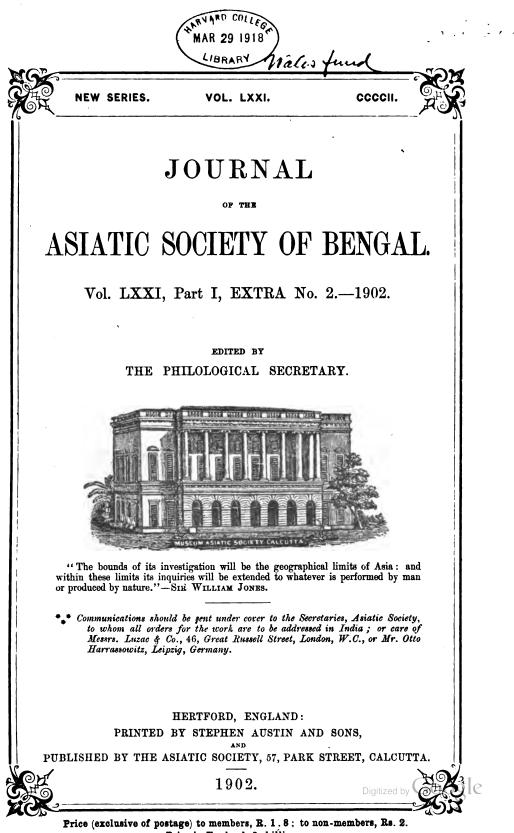




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## THREE EPISODES

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FROM

# "CAŅŅĪ."



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# THREE EPISODES

FROM

## THE OLD BENGALI POEM

# "CAŅDĪ,"

TRANSLATED INTO ENGLISH

B¥

## E. B. COWELL, M.A.,

PROFESSOR OF SANSKRIT AND FELLOW OF CORPUS CHRISTI COLLEGE IN THE UNIVERSITY OF CAMBRIDGE.

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## PREFACE.

MUKUNDA RAM CAKRAVART,<sup>1</sup> some extracts from whose poems I wish to introduce to the English reader, lived in Bengal during the latter half of the sixteenth and the early part of the seventeenth century. He seems to have passed his life in the districts of Bardwan and Midnapur, and he commemorates in his works Mansinh, the celebrated general of the Emperor Akbar, who became governor of the newly conquered provinces of Bengal, Bihar, and Orissa in 1590. But his poems tell us as little of the wars and conquests which fill the history of Akbar's reign, and which naturally engrossed the thoughts of the poet's contemporaries, as Spenser's "Faery Queen" tells us of the actual events which stirred men's hearts during the reign of Queen Elizabeth. Mukunda Rām's characters, in fact, live in a mythological world as far removed from the actual world of human life as those in Ovid's "Metamorphoses"; and the Goddess Candi continually appears upon the scene to help her votaries and confound their enemies, as if they were living in the earliest mythological ages. But all this is only the external form of the poem. Under this fanciful surface we come in contact with a solid reality; for there we may find a picture of Bengali village life as it actually existed in the sixteenth century, before any European influences had begun to affect the national character or widen its intellectual or moral horizon; and it is this vivid realism which gives such a permanent value to the descriptions. Our author is the Crabbe

<sup>1</sup> He is often called by the title kabi-kankan, "the ornament of poets."

among Indian poets, and his work thus occupies a place which is entirely its own.

> "Quidquid agunt homines, votum, timor, ira, voluptas, Gaudia, discursus, nostri est farrago libelli";

and hence the poem forms in itself a storehouse of materials for the social history of the people as apart from their rulers. Wherever he may place his scenes—in Çiva's heaven, or India, or Ceylon— Mukunda Rām never loses sight of Bengal; he carries with him everywhere the village life of his own early days. All family or village customs are dear to him, and his work is therefore a mine of curious local and social information; and his various characters, though they may appear as only passing interlocutors in the scene, always have a real life and personality of their own. In fact, Bengal was to our poet what Scotland was to Sir Walter Scott; he drew a direct inspiration from the village life which he so loved to remember.

I subjoin a translation of the passage at the beginning of the poem where the poet gives an account of his early career, and how he was forced to leave the obscurity of his native place and find a new home and a poet's fame in the court of a neighbouring zemindar.

"Hear, neighbours, how this song of mine first into conscious utterance leapt:

Candī<sup>\*</sup> came down in mortal form beside my pillow as I slept. Good Gopināth, the talūkdār, lived honoured in Selīmābād; For generations seven his race the same estates and home had had. Dāminyā village was their home, far from the world a safe retreat, Until Mānsinh came to Bengal, that bee of Vishņu's lotus-feet. And in his days Mahmūd Sharīf over the district stretched his hand; A local governor sent by heaven to scourge the vices of the land. Under his rule the traders groaned, his hand lay heavy everywhere, Brāhmans and Vaishņavas alike stood helpless in their blank despair.

<sup>•</sup> Candī (pronounced in English *Chundi*) is one of the forms of the goddess Umā or Durgā (the wife of Çiva), who is especially worshipped in Bengal.

### Preface.

His measures of all fields were false, his acre's rods were always wrong, And howsoe'er the poor complained their words were as an idle song.

Waste heaths he reckoned fruitful fields; he passed across the land like Death;

The poor man's last rag he would seize; prayers to his ears were idle breath.

The moneylender's aid was naught; his loans but added more to pay;

- Two annas short was each rupee, and then the interest day by day.
- At last the ryots lost all hope; their hard-earned borrowings brought no cheer,

And if they tried to sell their stock, there were no buyers far or near. Good Gopinath by some ill fate was thrown in prison; in wild surprise The ryots crowded round the court, but what availed their tears or cries? Stunned with the blow I sold my stock for little more than half its worth, And after counsel held with friends I left my home and wandered forth. I and my brother took our way; 't was Candī led the helpless pair; At Bhetnā Rūprāī gave us alms, and Jadukunda sheltering care. Adown the Gharāī stream we sailed, the Dārukeçvar next we passed; We stayed awhile at Pandurpur, and to Kucatya came at last. There without oil I took my bath, water my hunger's only stay; Hungry and faint my children wailed, but I was famished e'en as they. There near a lonely hermitage, hungry and scared, I fell asleep, When Candi in a vision came and bade me rise and cease to weep. A leaf she brought and pen and ink, and though I knew no Vedic lore, She taught me metres and their laws and bade me sing her praises o'er. The river Çilāī then I crossed, to Āraŗā my way I found, A land with holy Brāhmans filled, its lord like Vyās himself renowned, Bankurā-rāy his honoured name; I paid my homage full of fear, And brought some verses in my hand, to which he lent a favouring ear. He gave me rice and paid my debts, and made me tutor to his son, And from that day Prince Raghunāth has stored my lessons every one. Dowered with all virtues from his birth, sages and nobles at his call, He greets me 'guru' from his heart and honours me before them all."

While Bābū Gobind Candra Datt resided in Cambridge some thirty years ago, I first learned from him about this old Bengali poem, and he kindly undertook to read it with me. We read

### Preface.

together more than half of it while he remained in England; and after his return to India I continued my studies alone, and he allowed himself to be my continual referee in all cases of difficulty. There were often obscure words and allusions, but he generally solved them all; and he sometimes amused me by his interesting accounts of the consultations which he had held with Calcutta friends over any passages of special obscurity. These attempts of mine to put certain episodes of the "Candi" into an English dress had lain for many years forgotten in my desk, until I happened to read Mr. G. A. Grierson's warm encomiums on this old Bengali poem "as coming from the heart and not from the school, and as full of passages adorned with true poetry and descriptive power."\* This mention of my old favourite rekindled my slumbering enthusiasm, and I have tried to make my imperfect translations as worthy as I could of a place in the Journal of the Asiatic Society of Bengal. I shall be delighted if some younger scholar is roused to an earnest study of this fascinating poem.

With regard to the Bengali text, I may add that, although the "Candī" is a favourite poem in Bengal, many passages appear to be more or less interpolated, and the readings of many lines are corrupt and obscure. I have generally used the edition printed at Cuncurā in B.S. 1285 (A.D. 1878), but I have often derived help from comparing it with the text in the common bāzār editions printed at Calcutta in Çaka 1789 (A.D. 1867) and B.S. 1286 (A.D. 1879). In my translation I have sometimes ventured to shorten the long descriptions, which are apt to become tedious.

• See his "Note on the Languages of India," p. 108. There is a good account of "Candi" in R. C. Datt's "Literature of Bengal."



## THE OLD BENGALI POEM, CAŅDĪ.

I.

The hero of the first part of the poem is Kalaketu. In his former birth he had been Nilāmbar, the son of Indra; but for an offence committed against the god Çiva in heaven he had been born on earth as a hunter. He marries a peasant's daughter, Phullarā, and lives with her in a hut in a forest which appears to be situated somewhere in the kingdom of Kalinga. Here he supports himself by his bow, and his wife goes to the neighbouring village and sells the meat which he brings home. They are plunged in the depths of poverty; but they are devout worshippers of Candi, who is resolved to interfere in their behalf. One day the hunter has especially bad luck and wastes the whole day without capturing any game in the forest, except a solitary lizard. This spoil, however, little as he thinks it, is to be the beginning of his good fortune, for Candī has assumed this disguise to befriend him. He returns home in sad disappointment; and here we commence our first extract.

Famished the hunter reaches home, but finds, alas! his wife away, For she is gone to Golāhāț to earn a pittance if she may; Soon she espies him from afar, and full of hope comes hastening home, But as she marks his empty hands her face is overcast with gloom. She smites her forehead with her hands, and bursts in tears for sheer despair : "Why with my husband still alive must I a widow's miseries bear? Where were the Ghațak's \* senses gone so evil-starred a match to plan? My father must have lost his eyes to give me up to such a man !

\* The Ghatak is the professional arranger of contracts of marriage.



1

My wedding gifts foretold my fate—turmeric, saffron, pān, forsooth; I should have taken heed betimes, nor sold to poverty my youth." With gentle words he comforts her, but still she sobs the same sad tale: "There's not one grain of rice at home, and who will buy our goods when stale?"

"Bimalā's mother was your friend; think you, will she compassion take? Carry some present in your hand, a porcupine \* for friendship's sake; Old kindness may be not yet dead; who knows but she may hear and lend Some refuse rice to help our need; go try your fortune with your friend. Borrow besides a little salt and cook some supper for us both, I'll go for you to Golāhāț and bear your basket nothing loth. And by the bye, packed in my net, you'll find a lizard tied with care; Take it and cook it with the rest; 't will be a relish to our fare."

> She takes her humble present in her hands, And at her old friend's door in doubt she stands, When from within she hears a cheery shout, "Come in, I'm glad at last you've found me out!" "A poor man's wife no time for calls can spare, Hunger absorbs my every hour and care." Her friend in welcome seats her by her side And decks her out in finery like a bride, Anoints her hair, and combs and binds her braid, And paints with red her forehead, as her maid. Poor Phullarā, trembling, makes her errand known, And begs some rice-a bushel-as a loan. "Oh business for to-morrow," she replies, "Comb out my hair and tell your histories." Thus sat the friends, linked closely as of old, Each heart absorbed in all the other told.

Meanwhile the goddess, left alone thus bound, Snapped with a shout the noose which tied her round; She was no more a lizard pinioned there; She stood a maiden now, divinely fair,



<sup>•</sup> Cf. the lobster brought as a present by the sailors in "David Copperfield." The other ed. reads some flower.

Robed in the costliest garb e'er dreamed by thought, Which at her will the heavenly artist \* brought; Bright with all gems, a queen in all her pride, She stood that lonely hunter's hut beside.

Glad with the stock of borrowed rice she bore. Poor Phullarā reached at length her cottage door; When lo! her left arm throbbed, and throbbed her eye, † As she beheld a 'full moon' standing by ! Surprised she greets the lady with a bow, "What is thy name and whose fair wife art thou?" Laughed in her heart the goddess as she stood, And mocked poor Phullara in her joyous mood : " Of Brāhman caste, Ilāvrit 1 is my home, But all alone I love abroad to roam; Of honoured race my lord, none worthier lives: But what a household his with seven co-wives!§ So, by your leave-your kindly heart I knew-I've come to make a few days' stay with you !" As Phullara heard the words the stranger said, The very skies seemed tumbling on her head; Poison was in her heart, though mild her tone ; No thirst nor hunger now; all thoughts of cooking gone!

"What, such a youthful bride as you in a strange house like mine to stay! Tell me, fair lady, how you dare unguarded and alone to stray? That waist of yours waves in the wind, poised like a stalk so light and fair; No lion's waist is half so thin, and scarce its burden can it bear. The bees forsake the jasmine flowers and to thy lips by hundreds fly; Thy moon-face wears its gentle smile like summer lightning in the sky. Those glossy curls, like dark blue hills, wreathed with white jasmine

flowers—I swear Fate wished to prove her power and fixed the flickering lightning in thy

hair !

Viçvakarman.

- + These are good omens for a woman.
- ‡ The division of the world which includes Mount Meru.
- § This refers to the seven or eight Çaktis or personified powers of Çiva.

3

Far brighter than the elephant's gems gleam with a lightning flash thy teeth,
While red like bimbas \* shine thy lips, a nose-ring gem thy nose beneath.
The gauze like dress that veils thee round and adds a charm to every limb;
The pearl-like shells upon thy hands,—all makes my mind with wonder dim !
Say, art thou Urvaçī come down, or Umā dressed in all her sheen,
Indrāņī † or Tilottamā, ‡ or say what other heavenly queen?
I cannot fathom in my thought why you have left your husband so ?
Oh I entreat you, tell me true, what spell has brought you down thus low?
Was it some burst of jealous rage? But if meanwhile of grief he dies,
Who is to tend his dying hours, as at the ghāt he languid lies?
Was it some crabbed mother-in-law or husband's sister's scolding tongue?
I will go with you to your home and try my best to right the wrong."
"How many questions more?" she said; "here in your house I'm come to stop;

Your husband's griefs have pierced my heart, I'll bring him wealth beyond his hope.

But would you know the ills I bear? My husband has a favourite wife, Gangā her name, a crown to him; but all the house she fills with strife. All day she storms, and he the while eats poison at his wild carouse: What wonder that I banish shame and hurry headlong from the house? Alas that I was ever born, a helpless woman doomed to be, Myself despised, my rival loved ! have I not cause for jealousy ? My cruel father knew full well the hated rival I should find, And yet he gave his daughter up, no faintest scruple moved his mind. Rich is my lord, and seven co-wives live with him in what peace they may, Each hating each, their railing tongues are never silent all the day. He eats datura \*\* till his brains are addled, and he wanders on Drowsily mooning in a dream, but glad to find himself alone. With ashes is his body spread, with bones benecklaced round his throat; Thank heaven, he wears a tiger's skin which serves alike for shirt and coat. Snakes form his wreaths, he beats his drum, and laughs all worldly joys to

#### scorn;

The god of love ne'er ventures near, he knows him for his foe long-sworn.

\* The fruit of Momordica monadelpha.

† Indra's wife.

1 A celebrated Apsaras, or nymph.

§ In this description of her husband there is a series of veiled allusions to Çiva as the religious mendicant of the Tantras.

\*\* The thorn-apple (Datura stramonium).

4



My rivals beat me as they will, he sees and hears, but does not care; A house with seven co-wives within,—there's fever-poison in its air. Destiny was my cruel foe, and in a hopeless desperate mood I recked not of the consequence, but fled alone into the wood. I met by chance your hero there; himself he brought me with him here; Go ask him, and refuse me not, for I have refuge none elsewhere." "Not so, I'll teach you what to do, and send you safely to your home." Her inmost thought the goddess knew, and said, "To stay with you I've

come.

Eat to your fill henceforth, for I will all the house expense provide;

Receive me as no stranger-born, but as a friend, one close allied.

I'll go before your husband's steps, in all his perils I'll be nigh,

In all his conflicts in the woods a certain sign of victory.

List, I will tell you who I am, if further history you want;

I at Benares live concealed, my husband is a mendicant.

Wealth of a hundred kings is mine, more than would buy the world," she saith;

"Such wealth I'll give you; in return I only ask for trust and faith."

Phullarā. "I'll tell you what is best to do; back to your husband's house return;

This will bring comfort in the end, as you, though now perplexed, will learn.

If you forsake your husband's house, how will you show abroad your face? A husband is a woman's lord, her guardian, her one resting-place.

Others are nought compared to him; he in both worlds can bring her bliss; He may chastise her as he will, for a king's right and duty this.

Have you not heard how Sītā once was carried off by Rāvan's guile

And forced to live a prisoner, shut up in Lanka's far-off isle;

How Rāma slew the ravisher, but only took her back as queen

After th' ordeal fire had proved how spotless bright her truth had been?

And even then some base-born carle could still so deeply sting his pride,-

Desperate he drove her forth again a lonely outcast from his side.

What, shall a lady born like you, so noble, so divinely fair,

Be angry like some low-born scold and fling her honour to the air?

E'en if a low-caste woman stay in a strange house a single night,

The neighbours point at her with scorn, and all her kindred hate her sight.

Go, you have done a thoughtless thing; believe me, to return is best,

And if your hated rival scolds, pay back her jibes with interest.

Why in a passion leave your home? you sacrifice your all—for what? Poisoning yourself for spite to her; and will the rival care one jot?" The goddess answered: "I am come, because I cannot bear to see Your noble husband thus beset with all the ills of poverty. And list; I met him in the wood, 't was he himself who brought me here; Ask him yourself; if he denies, I'll go and seek my home elsewhere. Say what you will, I mean to stay; my wealth shall all your sorrows cure; I am a lady as you say, and I will keep my honour pure. I thank you for your good advice, but keep it for some future day; You may require it all yourself; fear not that I shall lose my way."

> With sad forebodings, next, th' unhappy wife Gives the year's history of her struggling life : "See this poor hut; a palm-leaf thatch atop; One ricinus \* post within its only prop; How mid such squalor could you bear to stop? Baiçākh † (1) begins my misery's calendar: Dust-storms sweep by, the suns more fiercely glare; But howsoever fierce o'erhead the heat I with sore feet must go and sell the meat; Ladies may sit 'neath shady trees, but there How should I find, alas! a customer? E'en in the villages they scarce will buy, 'Who would eat flesh in Baiçākh?' is the cry. These rags ill shield my poor head from the sun;-Baiçākh is poison : this for number one. Jyaistha ‡ (2) is worse; for fiercer still its rays; And I, however thirsty 'neath their blaze, Yet dare not set my basket down to drink, Or kites will empty it before I think; Jyaistha's a fasting month to me perforce, No month of all the twelve to me is worse. Next comes Asarh (3), to soak the fields and roads; And e'en the rich in their well-stocked abodes

\* The Ricinus communis, or castor-oil plant, is in India a tree which is often thirty or forty feet high.

+ Half April and May. I have in this passage chiefly followed the text of the 1867 edition; the last edition begins the list with Åşärh.

‡ Half May and June.

6

Feel, as they watch their stored provisions fail, The ills which all the year the poor assail. I trudge to sell my goods from door to door, Thankful for refuse rice, nor hope for more. The leeches bite me as I wade the plains: Would 't were a serpent's bite to end my pains ! Down pours the rain in Crāvan (4) night and day; Bright or dark fortnight, which is which, I pray! But I must bear my basket, wet or fine; Rags soaked, a never-ending shower-bath mine. And if the rainfall stops a while o'erhead, Down come the floods to drown us in our bed. In Bhādrapad (5) yet fiercer rainfloods fall; Rivers or streams, one deluge drowns them all. How can I tell you half our lot of dour? Brahma was angry, so he made us poor. Åçwin (6) is Candī's month, and everywhere Rams, buffaloes, and goats are slain to her. All women put their finest dresses on, All except me; poor Phullarā alone Must rack her brains for food, or famished die; With all these victims, who my goods will buy? Kārttik (7) begins the winter; young and old Get their warm wraps to shield them from the cold. Heaven gives good cloth to all save only me; But some deer's skin my winter cloak must be. I crouch to warm my blood with head on knees, Or shiver in the sun and slowly freeze. Kind Mārgaçīrs (8) of all the months is best: Now I can eat my bellyful and rest; Indoors or out, there's food enough, no stint-Only the piercing cold, death's self is in 't. I wrap my tatters round me, but they tear, And, as I clutch them, split and leave me bare. In Paus (9) the winter's at its height; meanwhile All men in various ways the cold beguile; As oil to rub the limbs, or warm attire, Strolls in the sun or betel by the fire ;

All others keep the winter cold at bay, And only I must bear it as I may. I buy an old torn mat \* with venison; Its dust is smothering when I put it on; Ah! surely fate to women is unjust! I scarce can close my eyes at night for dust! Then Magh (10) is dreadful with its fogs and mists; Let the poor hunter wander where he lists, He finds no deer to catch, for sale or food; Nor find I herbs to gather in the wood. Oh Māgh's a piteous month for hunting men; No one wants flesh, for all are fasting then. Phālgun (11) makes most fall ill; but as for me, How could I tell you half my misery? Fierce is the cold; I pawn in sheer despair, For refuse rice, my stone and earthenware; My plates and dishes I must all resign ! Oh what a miserable lot is mine! I dig yon hole i' the ground, and when I sup Pour the rice gruel in and lap it up ! In Caitra's (12) month the soft south breezes blow, In the sweet jasmine flowers the bees hum low; And with the spring's soft influence in their heart Maidens and youths are lovesick, though apart; All joy save me, but I for some old sin Must think of hunger's ravening pangs within." The stranger heard to th' end, then said at last : "From this day forth these woes of yours are past ! Think of them as a something now no more, Henceforth you share in all my ample store !" Her face all soiled with grief and jealous fears, Poor Phullarā poured a passionate burst of tears; In sudden frenzy from her door she fled, And in wild haste to Golāhāt she sped, And found the hunter, who in strange surprise Stared at her broken voice and streaming eyes:

• The *khosalá* is a coarse mat used by the poor to sleep on, and sometimes also worn for clothing in cold weather.



"You have no sister-in-law, nor rival wife; Whom have you quarrelled with in deadly strife?" "I have no rival wife at home but you; Fate has indeed been cruel, you untrue! Waking or dreaming-heaven my words will prove-You never found me faulty in my love ! How have you turned your heart to villany? Why thus become a Rāvan's self to me? Whence this young wife and all her rich array? Beware, the ant gets wings, but falls a prey.\* Kalinga's cruel tyrant watches near; He will soon strip you bare, if once he hear." "Come, wife, and tell the truth, deceive me not, Or I will beat you soundly on the spot." "Yama be witness: at our door at home A lady stands now waiting till you come." Poor Phullara, when she flew to reach her lord, Had with her brought her basket and her board: Homeward now start the two, this guest to find, But board and basket both are left behind ! She leads the way in eager hurry back, While Kālu, † pondering, follows in her track. They reach the hut; 't is filled with dazzling light, As though ten thousand moons illumed the vault of night.

With lowly bow of reverence he thus addressed the stranger fair : "A poor and lowly hunter I; tell me, bright lady, who you are; And why, yourself of brāhman race, or, it may be, of race divine, You with your peerless beauty come and enter this mean hut of mine. This house betrays my bloody trade; a lady, if she steps within This cemetery strewn with bones, must bathe to cleanse away the sin. Go home in haste, while yet the sun lingers in yonder western sky; Go home, I pray, or slanderous tongues will hunt you with their hue and cry. Did you come here, fatigued, to rest? howe'er it be, I pray you, go; Phullarā glad will go with you, and I will follow with my bow.

\* For this proverb cf. Wilson's translation of the Sāsikhyakārikā, p. 113. It also occurs in Don Quixote, pt. ii, ch. 53.

+ This is a frequent abbreviation of Kālaketu.

Think of poor SItä; 'gainst her will the cruel fiend his victim bore, But all th' ordeals she endured could not her once-lost home restore. Women's good name is only kept, like an old dress, with ceaseless care; " Thoughtlessly handled or exposed too often, each is apt to tear."

> The goddess heard in silence all he said, And as in shame before him bent her head; Impatient now with folded hands he cries : "I cannot read your meaning 'neath this guise; But be it what it may, I care not, so You only leave this house of mine and go. 'T is yours to keep your name and honour pure; Be true yourself, and they remain secure. But 't is not well here in such guise to come ; And why, when questioned, doggedly thus dumb? Some noble's mansion your own dwelling is; What can you want with a mean hut like this? The wealth of kings is round your person hung, And yet you stray alone, so fair and young; Have you no fear of robbers as you roam? Low I implore you at your feet, go home." Still stood she dumb; enraged, the hunter now Paused not, but fixed an arrow to his bow; Then to his ear the fatal shaft he drew, Calling the sun to witness ere it flew. Lo! the bent bow grows rigid in his hands, And like a painted archer, there he stands! His palsied muscles mock the will's control, And tears proclaim his baffled rage of soul. In vain he strives to speak one syllable, Body and soul are smitten by a spell. In vain his wife would take the bow away; He cannot yield it; it perforce will stay! The all-gracious Mother now at last they hear Speak in her real voice and stop their fear:

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<sup>•</sup> I remember a Calcutta pupil telling me that an old pandit came one day to his father's house, and as he was about to take his seat on the ground his old dress gave way, and he at once quoted this couplet from our poem.

"Know I am Candī, your true constant friend, I come to give you blessings without end. This ancient forest which now darkens round Thou shalt cut down, and there a city found. To each man give a cow and rice and land, And rule thy people with a father's hand; While every Tuesday shall henceforth be mine, For solemn sacrifice and worship at my shrine."

Candī then shows the hunter where a great treasure lies buried in seven jars, and she helps him to carry them to his cottage. The next morning he takes a ring from one of the jars and goes off to a moneychanger to turn it into hard cash to meet his immediate necessities. But the neighbour owes the hunter an old bill, and gets out of his way, thinking that he is come to dun him for payment.

> Poor Kālu calls, "Where is my uncle, pray? An urgent need has brought me here to-day." "Alas!" the wife replied, "too late you've come, Early this very morn he left his home. A sudden business called him, to my sorrow, But he will pay your little bill to-morrow. Meanwhile we've need of wood, so bring some more, And by one payment he'll discharge each score." "I'm very grieved to hear that he's away, My business will admit of no delay; I came for ready cash a ring to sell; Some other friend will serve my turn as well." Smiling, her manners she began to mend, "A ring? pray wait a minute, my good friend." Hearing the sound of gain, by some back gate Her husband now comes running up elate, Eager for this new customer with his ring. And carrying scales and purse for bargaining. "O nephew, is it you I see at last? How have the days dealt with you as they passed?" "Uncle, I start betimes with net and bow, And roam the woods until the sun is low,

And Phullarā plies her trade, her gains are small, And both come home too tired to make a call. But I have brought a ring for you to see, You'll help me in a great perplexity. Deal with me, neighbour, like a generous man, Weigh it and please allow me all you can." The merchant takes it, and, intent on gain, Carefully notes the weight to its last grain. "No gold or silver is this ring of thine, Only bell-metal polished till it shine. Ratis sixteen it weighs-heaven prosper us-With two rice grains besides as over-plus; Now forty cowries are each rati's rate, And twenty cowries pay the extra weight. So that makes eight times eighty plus a score; Then there's your little bill adds thirty more. I dare say part in money will suffice, I'll pay the rest in whole or broken rice." The hunter thought, "A pretty dream, I wis; Are the seven jars at home all false as this?" Aloud, "Your offer in your face I fling, I'll go and take the fellow back his ring." The merchant said: "Five cowries more I'll pay; Come let us deal, I'm honest as the day; I and your brother oft have dealt, 't was he Who told me what a bargainer you could be." "Come, give me back my ring, and do not frown; I'll show it to some other in the town." "I'll add yet fifty more, upon my soul; All in good cash, no broken rice nor whole." His hands already seemed to grasp the prize, But Candī laughed with Laksmī in the skies; And a clear voice he heard from heaven which told, "Think not to cheat the hunter of his gold; Give him seven crores in cash, at once paid down. Candī has given it to him as his own; So shall thy wealth be largely multiplied." The merchant heard the words, but none beside;

He turned to the hunter, "I was but in jest, Take these seven crores, and may thy wealth be blest." He paid him down the coins, all true and good, And bade him fetch the oxen for the load. Homeward the hunter hastened with a will, But the good news flew even faster still; Where'er he went he found the farmers there, And every ox is pressed its load to bear; They crowd around the money-changer's door, And into ready sacks the gold they pour; Then to the hunter's home they bend their way, And there he stores his wealth as best he may; While every friend in need receives his fee, And every heart is glad with sympathy.

I here close the first extract, but the original goes on to describe at some length the hunter's adventures after this accession of good fortune. He obeys the goddess' commands and cuts down the forest and founds the city Gujarāt in her honour; colonists flock to inhabit it and secure the privileges which he offers them. Amongst them comes one Bhānru Datt, and I add a short passage which describes his introduction of himself. It will show how the poem abounds with picturesque episodes, some of which a little remind the reader of Dickens' wealth of minor characters.

Among the foremost Bhānru Datt comes with choice plaintains in his hand, And in the rear to back him up his brother-in-law close takes his stand; With a broad hem sown on his rags, his pen stuck ready in his ear, Impudently he makes his bow, "Good uncle, hail!" as he draws near. A tattered blanket is his dress; a quiet smile lights up his face; He waves his arms repeatedly, and in loud voice thus pleads his case: "Hopes of your favour bring me here, under your rule to find a home; Learn that my name is Bhānru Datt—you'll know it well in days to come. The Kāyasthas from far and near below my place are forced to fall; In family, judgment, moral worth, I am the leader of them all. Blood of the three best families flows in my veins free from all flaw— Both of my wives were ladies born, a Mitra is my son-in-law. All Kāyasthas on either bank of Ganges stream can eat with me;

I claim them all as kin, and they give us their daughters willingly.

My family's stock has many shoots-wives, mothers, brothers! it makes me pant!

Six sons-in-law with families—seven houses is the least we want. Please give me oxen and a plough, let basket, pedal, fan be sent; My gracious lord will nowhere find a worthier recipient."

But, like Sancho in his island, the hunter has little knowledge of the world, and his officials, Bhānru Datt especially, grievously oppress the people; at last his feudal lord, the King of Kalinga, invades the province, and Kālaketu is conquered and thrown into prison. The goddess Candī, however, appears in a dream to the king, and her votary is restored to his people; and at his death he leaves his little kingdom to his son.





### II.

The second part of "Candī" begins, liks the first, with the fall from heaven of the nymph Ratnamālā, who, for a forgetfulness in her dancing before Sīvā and Durgā, is condomned to be born as a mortal on the earth. She is agonized at the sentence, but Durgā promises to protect her, and bids her epread her guardian's worship wherever she is. The nymph is accordingly born as Khullanā, the daughter of Rambhāvatī, who is the wife of Lakshapati, a rich merchant in Icchāni, in the district of Bardwān.

For seven months Rambhāvatī feeds her herself;

She was overjoyed when she saw her child's first teeth.

When the year was complete the child runs about from place to place;

She eagerly puts on various kinds of ornaments.

Two, three, four, five years go by,

She plays in the dust with her girl-friends.

In her fifth year they pierce her ears,

And every day she puts on beautiful dresses.

Khullanā grows from day to day;

When six years had passed, one could not describe her complexion,

She was beautiful without any ornaments.

One cannot give any simile for her, she is the furthest limit of beauty, the moon shines in her face.\*

As she grows up to girlhood, her parents anxiously look in all directions for a suitable son-in-law; but the years pass by and Khullanā still remains unmarried.

In the meantime Dhanapati, a merchant of the neighbouring town of Ujāni, had married Lahanā, the daughter of Lakshapati's eldest brother. They had no children, but Dhanapati was high in favour with the rāja of the district.

• I follow the text of the 1867 edition.

### The Bengali Poem, Candi.

The following adventure introduces him to the reader :---

16

The merchant and some gay young friends forth sally one bright holiday, Bearing their pigeons in their hands, to wander in the fields and play. Leaving their pālkīs they alight and fly their birds in aimless fun, Their garments and their ornaments slip down unnoticed as they run. Then "Let each hold the female bird," he cries, " and let the other fly, And whosesoever bird comes back the first shall win the victory." The city lads troop round to see and clap their hands in wild delight; Up flies the merchant's pet white bird, nor lag its fellows in their flight. Each player holds the female bird in his left hand a prisoner fast, While the male pigeons soaring up dart to and fro in hurried haste. None had as yet turned back, when lo! a falcon hovers in the skies : At the fell sight the birds disperse, each for dear life in terror flies. Flies like the rest the merchant's 'white,' and towards Icchāni speeds its way ;

Through thorns and briars, with upturned face, its master follows as he may. Holding the female in his left, he calls and calls, but calls in vain; Walls, fences, ditches stop him not, he struggles on through grass or cane, And close behind his brahman friend Janardan toils with might and main. Just at that moment Khullanā was playing, by a strange good hap, With some girl-playmates out of doors, when drops the pigeon in her lap; She covers it beneath her dress, and while the rest in wonderment Crowd round about her, she runs home to hide the prize good luck has sent. The merchant follows after her, charging her with the robbery; "Why have you stol'n my priceless bird? were I to lose it I should die. Come, give it back, for, if I'm forced the theft in earnest to report, I am the merchant to the king, and great my influence at the court. Come, give it back, and end the jest; I see it hid beneath your dress. You know I must not venture force, 't would break all rules of politesse." Smiling, she whispers to herself, "My cousin's husband, who can doubt?" And then aloud, "Your favourite bird you must e'en learn to do without. It will not be your meal just yet; thank heaven you 'scape that guilt to-day; It grieved my heart to see you run like some low fowler for his prey. It came a suppliant to my breast—a suppliant is inviolate; This is a rule which overrules e'en merchants of the royal gate. Still, if you'll turn a suppliant too, and all these highflown airs forget, And come with straw between your teeth, I may give back your pigeon yet."

The merchant, guessing who the girl must be, Takes smiling leave; and, sitting 'neath a tree, Hears all the neighbouring gossips' tongues astir, But scandal's voice has only praise for her. Then to his brahman friend he turns for aid, "Try your best skill to win me this fair maid." Proud of th' important message which he bore, Janārdan hastens to the father's door. There he is welcomed with the honours meet, A seat is brought, and water for his feet; And the pleased father shows his eldest son, And names his other children one by one. Still some vexed pride inflames the Brahman's mind, Proud of the embassy he kept behind : "Is this your welcome for an honoured guest? Where are your robes, pan, sweetmeats, and the rest? Am I not come on marriage business bent, With offer of a noble settlement? Your daughter there is twelve years old, I hear; And still unmarried—can I trust my ear? Happy that father who has safely given His daughter to a husband when she's seven ; She needs no dower to lure the buyer's eyes, Kind speeches are enough with such a prize. Happy, too, he who weds his child at nine,\* He saves the funeral honours for his line, And for himself wins happiness divine. But you, poor dreamer, blind in heart and brain, Have let ten years, eleven, pass in vain. Nay, worse than this, you've let the twelfth year come, And still she lingers in her father's home. A girl of twelve unwed !--remember hell,--You as the father are responsible."

The father answered: "You speak well; I will do all a father should. Look for some fitting son-in-law in Bardwan or its neighbourhood."

\* Girls should be only married in their odd years.



2

Of eligible sons-in-law Janārdan then recounts the list, But none are worthy of the prize; each is found wanting and dismissed. " Of all the merchants of renown on either side of Ganges' stream, Like Dhanapati none I find-in wealth, rank, virtue, none like him. Ujāni is his native place, the foremost merchant of the land, Pious to brahmans and to gods, like Karna liberal of hand; Truthful and just in all his ways, of dramas fond and poetry; Lives not on earth the son-in-law worthy of Khullanā but he." The father heard with gladdened heart the praise of such a paragon : "Arrange the marriage if you can, forthwith secure him as my son." Meanwhile, concealed behind the door, his wife o'erheard the conference; Little did she approve the scheme, and vehement was her dissidence. "How could you ever give consent or waste your breath with such a man? I will not sell my child like this-was ever such a monstrous plan? What's all your boasted learning worth? it only makes you more a fool; Think of my giving up my child to bear a hated co-wife's rule! Lahanā's tempers and her storms-'t is not your learned books can show; What your own brother's daughter is, who half so well as I can know? A foolish thing is this you've done; you've heaped disgrace upon your head; How will you show your face abroad or bear the taunts which will be said? I'd rather tie her round my neck and plunge with her in Ganges' wave, Than give her thus to misery, a hated co-wife's drudge and slave. Oh do not listen to the scheme, nor let your judgment be beguiled; With such a tigress in the house, what would become of our poor child? Khullanā 's like a gentle fawn, and would you for a flattering tongue Tie such a noose round foot and neck, and do your daughter such a wrong? Give her the husband she deserves, so shall our daughter's heart rejoice, You shall gain merit by the deed, and men will praise you with one voice." "It cannot be,-the astrologers have read the story of her life, 'T is written in her horoscope that she must be a second wife."

> The mother feels her last appeal is spent, And gives reluctantly a sad consent. This hindrance smoothed, the father next in haste Invites the future bridegroom as his guest. He spread a bright red blanket for his seat, Water one brought, another washed his feet.

Rambhā in secret scrutinized his face, And sent to call the matrons of the place. From street to street the maid the message bore, And trooping come the gossips to the door; Their garments in disorder and their hair Loose streaming in their hurry to be there; This had one bracelet and one anklet on, That had one eye with powder, one with none; One leaves her hungry babe, nor heeds its cries, One bears her baby with her as she flies. The invitation comes by name to few, But all the neighbours hear and flock to view, And each is welcomed with the honours due. Each sees the bridegroom as he sits in state, And every one wends homeward, heart and soul elate.

The author next describes the angry grief of Dhanapati's childless wife Lahanā, when she hears from her neighbours that he is thinking of a second marriage, and that the new wife is to be her own uncle's daughter. At first she upbraids her husband with his inconstancy :—

"You have forgotten all your vows, but not for fault of mine; 't was fate, Who made not woman's youth and life run side by side, of equal date. When the sun sets, the lotus fades nor stays to see itself undone; But, when the palm has lost its youth, its withered leaves still linger on."

She is, however, consoled by the gift of a silk dress and five pans of gold to be made into a bracelet. The ojjhā or astrologer is next sent for, and he goes with Janārdan, the family priest, to the house of the bride's father to fix the day for the marriage. The astrologer announces that the next year, as a 'seventh year,' will be very unlucky, which terrifies the father, as his daughter will then be twelve years of age. The marriage, therefore, is hastened in order to fall within the current twelvemonth, and they finally fix on the 21st of the current month, Phālgun\* (which corresponds to part of our February and March). The poet now proceeds to describe the marriage itself, beginning with what takes place in the bride's house :--

\* The day of the asterism Uttaraphalgunī.

Lucky the hour and lucky is the day, And all the household wear their best array; By Rambhā's care, in garments turmeric-dyed, The daughter's seated by her father's side. And now the matron-world come flocking in, Their shouts of Ulu rise in cheerful din, While the invited guests from far and near Come trooping up to share the festal cheer. The drum, lute, pipe, gong, cymbals, conch, and bells-Every known instrument the concert swells; The deafening sounds the house tumultuous fill, While dancing girls display their agile skill. Next, to the Sun the offerings due are given, To Ganeç, Brahma, and the planets seven,\* And her † who guards the children, power benign, The churning stick set upright as her sign; While chanting priests the Vedic texts repeat, And the nine offerings place in order meet-Earth, perfumes, stones, rice, durba grass, and flowers, Fruits, ghi, and curds-to please the heavenly powers. Next silver, gold, a mirror for the bride, And pigments, yellow, red, and black, beside ; Cowries and shells, whose hues were ne'er surpassed, And a full dish, with lighted lamps, the last. In a clear voice the Brāhmans chant the Ved, The while Janārdan binds their hands with thread. Next to the Mothers † offerings are addressed, To Ruci, Gauri, Padmā, and the rest, And to the Nandimukhs § are set to fall The seven due lines of ghi along the wall; While Rambhā with her pitcher hurries round, Placing the auspicious water on the ground.

<sup>\*</sup> The grahas are properly nine, as the ascending and descending nodes are included in the number.

<sup>†</sup> Şaşthī, i.e. Durgā, as guarding on the sixth day after birth, when the chief danger for mother and child is over.

The sixteen Mātris. A particular class of deceased ancestors, in whose honour a special sign is traced with ghi on the wall.

We have next a curious chapter describing the charms which the mother employs in order to secure her daughter's influence over her husband after her marriage. She takes the cord from a buffalo's nose, and a lamp sacred to Durga, which the servant had previously buried in the ground; this will ensure his being as docile as any animal whose nose is pierced.\* The entrails (?) of a snake are next procured from a snake-catcher's house, and the gall of a *rohit* fish caught on a Tuesday. A cow's skull is brought from a cotton-field, on which the merchant is to be made to stand for twice twenty minutes; he will then be dumb as a cow, however Khullanā may scold him; and a friend of hers, a brähman woman, brings her some asses' milk and curds t in a half-baked dish to complete the charm.

> Meanwhile, like Kāma's self impersonate, In his own house the merchant sits in state; Brahmans recite their praise, the nach-girls sing, And with the shouts of friends the buildings ring; All that can bring good luck you there might view, Each good old custom's honoured as was due, Unbounded is the hospitality, And every Brāhman gets an ample fee. Then at the hour when the sun's rays decline, And, raising dust, return the homeward kine, With jewelled neck and wrists and flower-crowned head, And all his limbs with saffron overspread, He mounts the dooley; loud the dance and song, And bards sing praises while it moves along; The slow procession streams a mile or more, The city's deafened with the wild uproar : Loud boom the elephant-drums, as on they go In battle order as to meet a foe. Meanwhile, advancing from the other side, The followers of the brother of the bride Come in strong force; the two processions meet, And loud the crash and jostling in the street.

21

<sup>•</sup> Two other ingredients are mentioned about which I am doubtful, pākuģi-gāchhe (or, as in the other edition, kākaģi-gāchh) and hāi āmalāti; they may mean 'hemp-stalks' (pākāți) and some preparation of myrobalans. † The second edition has 'snakes' curds.'

Hard words are bandied first; then, as they close, They seize each other's hair and rain their blows; They pelt with clods, and fiercer grows the fight, But still the bridegroom's party keep their light. But Lakshapati, hearing of the fray, Hastens these angry passions to allay; He grasps the bridegroom's hand with welcome loud, And bears him home in safety from the crowd. With tears of joy he first embraced him there, Then put the wonted perfumes on his hair, On the red blanket made him take his seat, And had the water brought to wash his feet, And gave him bracelets, sandal, gems, and rings, To mark the honour which his presence brings. Next Rambhā comes, and her glad welcome pays, With all the forms enjoined from ancient days; His feet are washed, the arghya dish brought in, And curds flung over him good luck to win. Next with a string she measures, as he stands, His under-lip and measures both his hands; Then with the selfsame string she ties him round And knits him fast to Khullanā, captive-bound; Seven times she winds the thread in tangles fast, And loops the end to Khullanā's skirt at last-A certain charm, so ancient dames have told, He will be silent howsoe'er she scold.

Next comes the giving of the bride: the Brāhmans on their seats rehearse In solemn tones before the crowd the Veda's consecrated verse; The nāch-girls dance and play and sing, no voice in all the throng is mute, While loudly sound the kettledrum and tambourine and conch and lute. Then round the bridegroom on a throne they bear her to the canopy; With smiling looks the happy pair now face to face each other see. From her own neck she takes the wreath and puts it round him with her hand,

Loud are the shouts of all the friends, the *ulus* of the matron band. The father then takes kuça grass and Ganges water freshly poured, And, calling Durgā to attest, makes o'er his daughter to her lord;

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And, the new kinsman welcoming, he gives him presents manifold, Elephants, horses, litters, cars, silver, and costly robes, and gold. Again the burst of music sounds, the Brāhmans bind and loose them both; Then on Arundhati\* they gaze, type of unwavering wedded troth; Their parched-rice offerings next they pay to the star RohinI and Som t: Last to the sacred fire they bow, the guardian deity of home. Then they are brought within the house, and there the husband and

the wife

Together eat the sugar-milk, the handsel-meal of married life.t

Rām 's the first sound that wakes the new-born day; The bridegroom rose his daily rites to pay; The laughing relatives around him close, And claim th' accustomed largess as he goes; Then crowned with wreaths they seat the happy pair, And all the maidens bring their presents there. Some satins, silks, or sandal's richest smells, Some fill the betel-box with cowrie-shells. And gems for th' husband, and—auspicious sight !---Rare shells with convolutions to the right! Loudly the drums and conchs and tabours bray To speed the parting bridegroom on his way; The mother, as to take his leave he stands, Puts the 'five jewels' § gently in his hands. Prostrate before his fath'r-in-law he bows, Then mounts the palanquin and leaves the house.

After spending some days at home in making festivities with his relations and friends, Dhanapati one day went to the Rāja's court to pay his respects. He finds that the Rāja has lately received from a fowler two

<sup>•</sup> A star in the Great Bear, also the wife of the seven rshis.

<sup>The moon.
The first, and also the last, meal which the husband and wife est together.
These are the five precious things—gold, silver, pearls, crystal, and copper.</sup> See Kathās. S., ch. 77.

### The Bengali Poem, Candī.

marvellous birds, a sārī \* and a parrot, versed in all kinds of knowledge, and is desirous of procuring a golden cage to hold them. Such a cage can only be made in Gaur, the old capital of Bengal; and as Dhanapati arrives, by his ill fortune, at this juncture, he is peremptorily sent off to Gaur on this errand. He has to proceed at once, without being allowed to return to his house; he can only send a hurried line to Lahanā, entrusting Khullanā and the household to her care. He arrives at Gaur, but finds continual obstacles and delays while the cage is being constructed, and he remains there many long months.

At first the two wives, left alone in the house, lived in perfect harmony together: Lahanā acted as the affectionate elder sister; she cooked her choicest dainties for Khullanā and devoted herself to making her happy. But this state of things did not last long; the maidservant Durbalā saw with disgust the unusual concord, and determined in her mind to do her best to put an end to it. "Where the two co-wives are not quarrelling, surely the maid in that house is crazy; I will carry tales of one to the other, she will love me like her own life." Durbalā soon kindled Lahanā's latent jealousy, as she warned her of her coming loss of influence when the merchant came home from his journey: "he will be the slave of her beauty; you will be only mistress in the kitchen."

Lahanā, in her despair, bethought her of an old friend of hers, a brāhman woman named Līlāvatī, who professed to be well versed in philtres and charms; and she despatched Durbalā to her with a message and a rich present of plantains, rice, and cakes, with fifty rupees as a fee and some bright new cowries and betel-nuts. "Durbalā took two from these last on her own account, stuffing one into each cheek. The porters go before and behind, and she in the middle; slowly, slowly she marches, swinging her arms and gathering some campak flowers as she goes."

> She left the writers' quarter on the left, And elated she entered the brāhmans' quarter. She arrived at the house of the brāhmaņī medicine-woman, She calls loudly at her door for the lady Līlā.



<sup>•</sup> Turdus salica. These two birds are often mated in Hindu legends. For a similar mating compare the traditional attachment between the coulours (adder) and the murène in Provence, see Mr. J. B. Andrews (*Revue des traditions populaires*, tome ix, p. 335, 1894). Cf. infra, p. 30.

She gives her presents and pays her respects, And Līlāvatī with kindly greeting takes her by the hand. She asks her for the news about her mistress, "You have not been here, Duyā,\* for many a day." Durbalā told her the whole story, "She wants some private talk with you."

When Lilāvatī arrived, Lahanā poured out her griefs: "No husband in the house, a co-wife set over her head—trouble heaped upon trouble!" Līlāvatī laughed at her disconsolate friend's sorrow. "Why are you so downcast at one co-wife? I have six co-wives at home, and think nothing of it!" She then described how she kept her mother-in-law and all her rivals quiet by means of her spells, and how her potions had completely subjugated her husband to her will. A long account follows of the various spells which she recommended her to use; but she especially recommended to her the spells of cheerfulness and gentle words.

"She who would win her husband's love must wait on him with smiling look, Not lose her beauty at the fire, for ever drudging as his cook; If thoughtless of her husband's wish, to all his interests blind and cold, The young wife is a constant care, just like the miser's hoarded gold; Or if her tongue is never still, of what avail will beauty be? Vain the silk-cotton's crimson flowers without the scent that lures the bee. Brown is the musk, the queen of scents; 't is sweetness wins the surest love, And the black kokil, by its song, enchants all listeners in the grove. Test for yourself th' advice I give—be gentle words henceforth your art; They are the best and surest pit t' ensnare that deer, your husband's heart." Lahanā answered : "Gentle words? good heavens! I know not what they mean;

I was a single wife too long, mine the sole rule the house within; I cannot meet this altered lot, my heart through fortune's spite is sore; Truly my cocoanut is spoiled, water has soaked it to the core! No gentle words I needed then; and, if my husband scolded me, I beat the board about his head and stormed in louder tones than he. Talk not to me of gentle words; tell me some better means, I pray---Oh what a sudden scurvy trick was this for destiny to play! See, I am utterly undone, the snake has bit me in the eye; Where can I bind the bandage tight to stop the poison's agony?"

\* A colloquial abbreviation of Durbalā.

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Lilāvatī now begins to doubt as to the potency of her spells in such a desperate case as the present one; and the pair finally resolve to forge a letter as coming from the absent merchant to his elder wife at home. In it he is represented as lamenting his long absence and the continual expense it involves, and he asks her to send him some of Khullanā's gold ornaments; while Khullanā herself is to be set to tend the goats, and to wear the meanest clothes, and to sleep in the shed where the rice is shelled, in order to avert the malignant machinations of the demons. By this device the two conspirators hope that Khullanā's beauty will be spoiled, and thus her influence over the merchant brought to an end.

> Ten days she kept the letter in its place, Then went to Khullanā with a fond embrace, With downcast looks and many a lying tear: "O sister, can I tell you what I hear? Hear for yourself this letter full of woe-How can you hope to 'scape this cruel blow." She read the lines, but only smiled-she knew The letter had a look that was not true. "I have no fear, good sister," answered she; "Who has been writing this to frighten me? My husband forms his strokes in different wise-Who has been tricking us with forgeries?" "Surely our lord dictated what is writ, Although another's hand indited it; Think of the many servants he has got, Ready to do his bidding on the spot. You must e'en tend the goats as best you may; His orders, like the king's, brook no delay." "Crowned as a bride I came, unthinking, glad; How short an hour of wifehood have I had! What fault of mine deserved such punishment? Why such a cruel letter has he sent? Go, Lahanā, mind your own concerns in peace, And all these domineering meddlings cease." "Little you know, you rākshasī accurst; Ill was the hour you showed your face here first;

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The king the order gave which caused the ill, That hateful cage which keeps the merchant still; 'T is this that sends you out the goats to tend ;---Blame your own fate, not me, and there 's an end!" "Then if that letter is our lord's, his own, Where is the messenger, who brought it, gone? Of all the servants whom he took to wait, Has even one been seen within our gate?" "To make the cage he has not gold enough; Three servants came, impatient to be off; They took the gold and vanished in a trice-You were too busy at your favourite dice. Two wives like us, left husbandless alone,---I fear we're sure to quarrel while he's gone. You married him for his wealth-you know 't is true,-Am I to be your slave and wait on you?" "Childless old woman, if you thus presume, I'll beat you, as your mistress, with my broom." "Durbalā, you have heard this forward chit; Shall she go on and I submit to it? But vesterday she left the nursery. And now she dares to bandy words with me!" Each shook in wrath her bracelet-jangling arm; The neighbouring wives come running in alarm. By sad mischance, poor Khullanā's hand, though weak, Came in collision with the other's cheek; The touch was slight, but Lahanā's fury rose, And, all on fire, she dealt her angry blows; Each stormed and cuffed, and pulled the other's hair, In vain the neighbours tried to part the pair ; Helplessly wondering, they watched the fray, And Lahanā's tongue soon drove them all away. Each on the other then her anger bent, Their armlets, anklets clashed, their clothes were rent; Like showers of hail their mutual blows fell fast, But Khullanā was overpowered at last. In vain she called her absent husband's aid, Lahanā listened to no word she said;

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She strips her of her bracelets and her rings, Torn from her head her wreath and pearls she flings, Her anklets, armlets, zone, away she bears, And from her waist her silken sāri tears. Poor Khullanā stands of all her pride bereft, Only her iron ring of wifehood left; \* Thirsty and tired and weeping, there she stands, A rope tied tightly round her neck and hands. E'en Durbalā feels compassion as she weeps, And brings some water for her thirsty lips. Gently she thanks her in a grateful tone, "O Duyā, but for you, my life had gone."

Low at her feet she falls and weeps : "Oh help me in my loneliness; I come with straw between my teeth, a suppliant in sore distress. I have no friend nor kindred near; my husband, he is far away, And Lahanā in the empty house tiger-like rages for her prey. O Durbalā, I rest on thee, be thou my help for pity's sake; Go tell my mother, as from me—'t was she who made the sad mistake — 'Your daughter Khullanā is dead—oh what a wondrous gain you got When to her fate you sold your child !—abide in joy and sorrow not.' And tell my father, here alone, through Lahanā's tortures I expire— 'T was his own hand that ruthlessly threw his poor daughter in the fire."

Durbalā. She punishes the least offence with blows,
For a small fault she'd cut off ears and nose;
I must not vex her—you must wait, I say,
I 'll take your message when I find a way.
In the meantime be patient and submit,
And feed the goats, if she insists on it.
I 'll take your message safely—never fear—
And in a trice your father will be here."
Next Lahanā came, her harsh command to press,
While Duyā brushed the mud that stained her dress;

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<sup>•</sup> This is the iron ring always worn on the left hand of a married woman; it is laid aside in widowhood.

The staring neighbours gather from the town, And Līlā counts the goats and writes them down.\* Says Lahanā: "I will mark them every one, That any changeling stranger may be known; And should one die, if I the body see, I will say naught, and she from blame be free." Poor Khullanā, helpless in her bitter woe, Put on her rags and sadly turned to go; Durbalā only showed a little care. And brushed the dust while Lahanā bound her hair. Slowly she goes with leaves her head to shade, And in her hand a simple switch was laid. The goats run scampering, heedless where they roam, And angry farmers storm to see them come. Her flower-like body in the sun's fierce heat Seems withering up, her clothes are steeped in sweat. A river stops her-urged by greater dread, She carries every goat across its bed; Next comes a wood in sight, beneath the boughs The hurrying goats disperse themselves to browse ; She hears the wolf's sharp howl, and wild with fear Runs to and fro to show that she is near; The kuç grass with its needles stabs her foot, And drops of blood betray her devious route. Wearied at last, she sits beneath a tree Watching the goats stray heedless o'er the lea. At length she stirs herself at evening-fall, And drives her goats together to their stall, Then waits for Durbalā to bring her fare, All that the stingy Lahanā can spare. Coarse was the meal-an arum leaf for dish-Old refuse rice, poor pulse, and common fish ; Tough egg-plant stalks, of withered gourds a slice, But ne'er a pinch of salt to make it nice.



<sup>•</sup> In the original there here follows a long list of the names of the goats, filling ten lines—Mālatī, Bimalā, Dhūlī, etc. It is an interesting illustration of St. John, x, 3, "he calleth his own sheep by name."

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Khullanā, weeping, eats as best she may, Swallows a part and throws the rest away, While Lahanā comes and watches at her side, And scolds her for her daintiness and pride. On her straw bed she lies each weary night, And leads her goats afield each dawning light. Some rice, half dust, is in a bundle tied, And thus the day's provisions are supplied. Carrying her switch in hand she wanders slow, And on her head a leaf to cool her brow. Under pretence of bringing water there One morning Durbalā hurried after her. "I saw," she cried, "your parents yesterday, And told them all, but nothing could they say. Your mother grieved the doleful story heard, But good or bad she answered ne'er a word : And your old niggard father, I declare, Sent you some paltry cowries-here they are."

. . . . . .

At length the spring came down upon the woods, And the spring breezes woke the sleeping buds; The season sends its summons forth to all, And every tree hangs blossoms at its call; The drunken bees feel waking nature's power, And roam in ecstasy from flower to flower, Just as the village priest, the winter done, Wanders elsewhere to greet the vernal sun. Amidst the leaves she hears the cuckoo's voice. And the known note makes all her heart rejoice. "Oh will my lord come back," she cries, "to-day? He has been gone a weary time away." But while she counts the months, by chance she sees A parrot and a sārī in the trees; Loud she upbraids them-they had done the wrong, Their luckless cage had kept her lord so long. "That golden cage, that whim of yours, in truth, Has made poor Khullanā widowed in her youth;

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You drove my lord from home, and I forlorn Was left a cruel co-wife's drudge and scorn. She grudges me my food, or clothes to wear, I wander keeping goats in my despair. Have you come here to wreak your angry will Because that cage remains unfinished still? Take care, be wise, my patience has a bound, I may turn fowler, reckless how I wound; I may ensnare the parrot in the tree, And leave the sārī widowed just like me. But if you feel compassion for my pain, List to my prayer, fly back to Gaur again, My husband seek, and pour into his ear The tale of all the miseries which I bear."

At last the goddess sends a dream to Lahanā which alarms her, and she fetches Khullanā back and begins to treat her more kindly; and, by a similar dream, she reminds the merchant of his forgotten home duties. He has been wasting time on his own pleasures during his long stay of more than a year in Eastern Bengal, under the pretext of watching the construction of the cage. Warned by the dream, he delays no longer, but returns with the cage, and is welcomed by the Rāja with every honour.

> Lahanā hears the news, and sore dismayed Turns for some help to her deceitful maid: "The master has at last come back, I hear; Khullanā will bewitch his mind, I fear: Where are the ointments, charms, and philtres stored? Help me, I pray, and win me back my lord." Durbalā brought the box, well pleased to tell The mystic uses of each drug and spell; But while her mistress tries each charm in turn, She breathless runs poor Khullanā's thanks to earn. "O little mother, let me kiss your feet, Come out and hear the music in the street; Your hope's fulfilled, my lord's come home at last, And your long night of misery is past.

I have no mistress now but only you, I am all yours-you know my words are true. I'll bear you witness what your griefs have been, I've vexed my inmost heart for what I've seen. Show him the rags and switch; disprove her lies, And make her presence hateful to his eyes, Multiply all her misdeeds as you please; Faint heart ne'er brought a rival to one's knees." Poor Khullanā smiled to hear such comforting. And gave the girl in gratitude a ring; Then Duyā rose and brought the jewel-case. And straight unlocked its stores before her face, While she adorned her mistress with the best, And with art's utmost skill her person dressed, Rings, gold, pearls, jewels-what can art do more? When lo! they hear the merchant at the door! He bids farewell to his attendant train. And calls for his wife to greet him home again. Khullanā comes at once her lord to meet, And pours a stream of oil before his feet; But she was as a stranger to his eye, Some nymph, perhaps, come down from Indra's sky; His compliments but pained her as she heard, And with head bowed she answered ne'er a word. Covering her face she turned within at last, But Duyā heard behind the door what passed, And eager to be friends with both she flew To tell th' expectant co-wife all she knew. "Oh have you heard, my lady, what has come? My lord, thank heaven ! has safely reached his home, And who but Khullanā, forward minx though prim, Has rushed to be the first to welcome him ! She with her youth, best clothes, and fineries,-What an unfair advantage 't was to seize! She never asked your leave, but ran to th' gate, Eager to be the first at any rate. Had we but had a wiser lord, alack ! He would have scorned her tricks and thrust her back."

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Lahanā begs Durbalā to finish adorning her, and thus arrayed she hastes to make up for her lost time; but when she comes before the merchant, he appals her by asking her who was the beautiful stranger whom she had already sent before her to give him the first welcome. Lahanā pours out her complaints.

> "When first you went, a long and weary age, Sent by the king for that unlucky cage, You left young Khullanā in my special care, No thought and no expense was I to spare. I did my best-so much I will aver-But little was the help I got from her. She never stirred to cook the household fare. Nor lent a hand to help me with my hair; Dress her one thought or cooking something nice, Or with some idle friends to play at dice. I used to dress her out; my gems and rings She wore as if they were her proper things; No moment from her constant claims was free. Durbalā had no time to wait on me: On every choicest dish she must be fed, And at unheard of hours her meals were spread. She never cares to pay a visit home, Nor lifts her hand to have her mother come; To spend the money is her only thought,-Fancy the waste and mischief she has wrought !" Her outburst well her lord could understand, And slipped a golden bracelet in her hand.

The merchant then arranges that Khullanā is to prepare a special feast for himself and his friends, and, in spite of all Lahanā's machinations, it all turns out as he wishes.



### III.

### KHULLANĀ'S ORDEAL.

The merchant Dhanapati was one day playing backgammon with some friends, when his family priest entered and reminded him that the first anniversary of his father's death was near at hand, at which time he would have to offer the customary ancestral eacrifice called the graddh. Dhanapati, who had been absent on the king's commission in Gaur when his father died, determines to perform the rites with every mark of honour; and he invites all his kinsmen and the principal members of the merchant easte in all the neighbouring towns to be present. They come in great numbers and assemble at his house on the appointed day. Dhanapati performs the graddh,\* and then follows the description of the reception of the guests.

> The crāddh was over and the Brahmans gone, Loaded with costly presents every one, When, full of care, his way the merchant wends To pay due honours to th' assembled friends. How shall he likeliest give the least offence. To whom presume t'assign the precedence? Cand is the first in character and race,-Cand is the one who best deserves the place. 'T is Cand to whom he turns the first to greet, And brings the water first to wash his feet, Then draws the sandal-mark upon his brows, And round his neck the flower-wreathed garland throws. But Çankha Datt in sudden wrath out burst, "I in these meetings am by right the first. Lo! Dhūsha Datt can witness how of late His father's crāddh he had to celebrate ;

<sup>•</sup> The original has a description of the *crāddh* which I omit. A full account of the various ceremonies is given in Colebrooke's Essays, vol. i.

Full sixteen hundred merchants, one and all Of stainless credit, gathered in his hall, Yet I was first of all that company ; Too much good luck has made you blind, I see." Retorts the merchant, "First, I grant, you were; But why so? Cand, I warrant, was not there. His wealth and virtues are alike untold, Even his outer court \* is filled with gold." At this Nilāmbar sneers, "And think you, then, That gold can purchase everything for men? His six poor childless wives bemoan their fate.--Can gold light up a house so desolate?" "I know you well, Nīlāmbar," Cānd replies, "Your father too,-there's many a rumour flies. He used to sell myrobalans, fame avers, With all the city's scum for purchasers. His cowrie-bundles, with a miser's care, He stowed away here, there, and everywhere: He'd stand for hours, and then, the hustling o'er, Go home and dine, with ne'er a bath before." "Well," says Nilāmbar, "well, and why this din? He plied his lawful trade,-was that a sin? And then the snack which you his dinner call,-A sop of bread or plantain, that was all." Nīlāmbar's son-in-law, Rām Rāy by name, Now interposes to divert the blame: "If we're to wrangle on a caste affair, Had we not better turn our thoughts elsewhere? When a young wife keeps goats in woods alone, Is there no loss of caste to anyone?" At this around the room a murmur went, One whispers and his neighbour nods assent, And then Rām Rāy, to deepen the offence, Called for the Harivamça's evidence.

<sup>•</sup> The mahals are the different compartments into which a Hindu mansion is divided, each containing its garden with rooms round it on all four sides.

All sat awaiting what would happen next, While the old Brāhman read the sacred text; The unfriendly merchants laughed or jibed aloud, While Dhanapati sat with head low bowed.

A passage is then read from the Harivamça which illustrates, by the story of Ugrasena's queen, how dangerous to female chastity lonely wanderings in the forest may prove. Rām Kunda then proposes that the passage from the Rāmāyana should be read which describes how Rāma, after rescuing his wife Sītā from her imprisonment in Lankā, only received her again after she had proved her purity by entering unharmed a burning house of lac.

> Then Alamkāra Datt next wags his tongue: "Our host may well suspect there's something wrong; His wife kept goats and wandered without let,-Who knows what drunken rufflans she has met? So let her pass the ordeal; till that's done, Who'll taste the food she cooks? Not I, for one. Or if the ordeal's risk unwelcome be, Then let him pay a lac and so be free." Here Lakshapati \* threatens: "I shall bring The whole affair at once before the king." Then Cankha Datt: "Has pride your heart so filled That you must play the king upon the guild? Take care, for Garud's † son his caste defied, But the sun scorched his wings and tamed his pride. If it's the king to whom we must resort, Let us all go in a body to the court; But kings know more of criminal penalties, These caste disputes the caste itself best tries. Duryodhana, they say, though stout and brave, Scorned the advice of ten, and found a grave.

- \* Dhanapati's father-in-law.
- + The king of birds; his son was Sampāti.

It still holds true; if ten your conduct blame, And you stand out, then woe betide your fame!" Meanwhile the host, while loudly thus they brawl, Steals out dismayed to scold the cause of all.

"What craze possessed you, Lahanā, to send your co-wife to the wood To tend her goats—you'll rue the day—left houseless in the solitude? You promised me to keep her safe; basely have you betrayed the trust; For your own ends you've ruined her and dragged my honour in the dust. A king will vex by open force, by slanderous tongues our kith and kin; A serpent by its spring and bite—but yours a deadlier wound has been. I married her to have a son, to build for me a bridge to heaven, That so the ancestral offerings, when I was gone, might still be given. For who is like the sonless man—what bitterness is such as his? In the three worlds he has no hope—life is one string of miseries. What is my life now worth? Go bring a knife or poison, let me die; We shall be glad then, both of us, but not e'en you so much as I."

From her he goes to Khullanā, and urges her by every plea
To shun th' ordeal's unknown risks and calmly face the calumny.
"Leave the ordeal's test alone; stay still at home, your proper place.
Were you by some ill chance to fail, how could I look men in the face?
E'en should there be some fault in you, 't is not for me to utter blame;
'T was I who left you thus exposed; ill I deserve a husband's name.
You wandered in the wood alone—women are weak by nature all;
Old stories swarm with precedents how soon they, left uncared for, fall.
Cease then your fear, I'll pay the sum, and should some cross-grained wretch still pout,

I'll pay it down a second time-my purse will yet a while hold out."

"O foolish husband, if you give to-day, Year after year you'll have the same to pay. Year after year they'll wring by force their claim, And far and wide will blow my tale of shame. I must, then, brave th' ordeal-it must be; I will drink poison if you hinder me." Deep in his heart he knew her innocent, And from his face the cloud of trouble went. With lightened heart he entered now the hall, And asked their presence at his festival, And "Khullanā," he said, "shall cook for all." Most of th' invited guests seem pleased to come; Only Nilāmbar downward looks in gloom. "The tenth-my father's crāddh is on that day; How can I then eat flesh with you, I pray?" 'T was an old wound that rankled in his breast-The sore seemed healed, but still the merchant guessed. "I ask you not to eat our common fare, Eat rather what your Brāhmans will prepare; But when the crāddh is over, be my guest-Your simple presence is my one request." "In Gaya's shrine and Puri's have I stood-I must not eat an alien gotra's food." Glancing askant in rage and wounded pride, In a rough voice the merchant thus replied : "Shall one whose ancestors have dealt in salt For fifty generations without halt Boast of his family, self-deceived and blind? He retails salt to every low-caste hind, And out of every penn'orth sold by weight Out spoke the merchant thus, with anger filled; Rām Kunda then, th' attorney of the guild, Catching a signal in Nīlāmbar's eye, Put forth his hand and deftly made reply : "'T is all a caste affair,-then what's amiss? This one sells salt by caste, and potherbs this. You married a young girl, too young and fair; She, keeping goats, has wandered, --- who knows where? A fish that's lying stranded on the shore, Or gold or silver on a lonely moor,-



Such is the maid who lone in forests hies; Who can refrain from seizing such a prize? This is the common judgment of mankind,— And who shall call that common judgment blind? If Khullanā be spotless, as you say, Th' ordeal let her pass in open day. Then send the invitations round, and we Shall all be glad to taste her cookery." Poor Dhanapati, thus on all sides pressed, Accepts the challenge and awaits the test.

In Ganges water bathed and then bedight With garments as the moon or jasmine white, Khullanā offers at the goddess' feet The flowers and lamps and perfumes as is meet. Then walking round the image lifts her cry, "Oh save me in this hour of jeopardy !" Low on the ground she pleads with sobs and tears, Till moved t' her deepest heart the goddess hears. Before her suppliant in the room she stands, And on the low-bowed head she lays her hands. She promises her presence and her aid, And Khullanā no longer feels afraid.

Meanwhile the merchant holds a council sage : A hundred pandits reverend with age, Arranged in state on seats of honour all, Discuss th' ordeal's ceremonial. They call on Yama; then, as in his sight, A mantra on two peepul-leaves they write; Two casual strangers next are led aside, And on their heads the symbols twain are tied. Into the lake they dive,—all tongues are still,— But what strange shouts of joy the city fill?

With her eight nymphs the goddess in her car Looks down upon the contest from afar. They rise, but not together now as erst,-'T is Khullanā's foe gives in exhausted first. The leaves reversed, the divers plunge once more, But Khullanā still is conqueror as before. Says Cankha Datt: "Th' ordeal was not fair; There was collusion with the men, I swear. Leave all these tricks, and if you would decide Her innocence, some other test be tried." A deadly serpent next is brought,---its eyes Are two karañja blossoms in their dyes \*: Wildly it hisses, pent its jar within, The jar seems bursting with the stifled din. The merchant drops his ring inside, and loud Rises a cry of wailing from the crowd. But Khullanā, kneeling, lifts her gaze on high And calls the Sun to help her purity, And seven successive times they see her bring Out of its prison, safe, the golden ring. There was a silent hush, till from the press Rām Dāń's harsh voice broke out in bitterness : "'T is all a trick,-that serpent's mouth was bound, Or 't was a poor dull worm that could not wound." A smith set up his furnace on the spot And heated there an iron bar red-hot; Red like the newly risen sun it shone, Fear pierced the merchant's heart as he looked on. Upon a peepul-leaf the mystic line He traced and placed within her hand the sign; They seize the bar with tongs as fierce it glows, And bring it reddening like a china rose; But Khullanā, dauntless, utters her desire : "Thou life of all that lives, hear me, O fire!

• "The karafija flowers are pretty large, of a beautiful mixture of blue, white, and purple."-Roxburgh.

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If I have sinned, then scorch me with thy brand; If I am pure, rest gently in my hand." She stretches forth her hands the bar to clasp, The burning mass is lowered into her grasp; With head bowed low she bears it all alone, Through the seven rounds she bears it, one by one, Till on the straw at last the bar she lays,-Up in a moment flames the straw ablaze. Still Cankha Datt looks on in discontent, And thus he gives his bitter envy vent: "I'm half afraid to interpose my say, But false ordeals-what are they but play? There was some witchcraft in it-all was plann'd. Hence was that bar like water in her hand." Another test was tried-the Brāhmans came And set on fire some ghi,-up flashed the flame; But Khullanā, where the flame was fiercest, turned, Dropped the gold in, then took it out, unburned. Then Mādhab Candra: "Call you this a test? It was a false ordeal. like the rest. Pay the sum down, ordeals all are vain; So, your wife cleared, your honour you'll regain."\* Though sore provoked that thus each trial fails, Once more the merchant yields to try the scales, † Again does Khullanā, fearless, meet the event, Once more the proof proclaims her innocent. Then Ghusha Datt comes forth the case to mend: "I sympathize with your distress, my friend; Your fellow-castemen, right and left, you see, Still wag their tongues whate'er th' ordeals be.

• The second edition here adds the account of another ordeal with *pansi* water. A Bengali friend, whom I consulted on this obscure phrase, writes as follows: "*Pānā* is a plant which overspreads every foul tank; it is very common in Calcutta, and so is the word; *pansi* means 'covered with  $p\bar{a}n\bar{a}$ .' Water so covered is very cold, because it never feels the sunlight, and any person bathing in a tank covered with  $p\bar{a}n\bar{a}$  is liable to have cutaneous diseases. The word is pronounced and written  $p\bar{a}n\bar{a}i$  now." As the passage is omitted in the first edition, I have ventured to leave it out in my translation.

+ See the Institutes of Vishnu, x (Jolly's transl., Sacred Books of the East, vol. vii); the innocent man weighs lighter at the second trial.



A lac-house was the test which Sītā passed,— To this one point they all come round at last. You are my mother's brother; this alone Would prove I have no interest but your own. Make a lac-house and let her enter in, This test will purge the faintest breath of sin." Then Māņik Cānd: "I must no more sit mute, This test alone will settle the dispute. It was this test proved Sītā innocent, How can we find a better precedent?" At last the merchant yields, with anguish filled,— But where's the architect such house to build?

A solid mass of gold, a gourd (?) in size, With solemn state is offered as the prize. On a high pole his banner flouts the sky, While drums and trumpets bray their hoarse reply. Town after town-the rumour fills the land, But all shrink hopeless at the strange demand ; "A house of lac, like Rām's!" the whisper ran; "The gods' ordeals who but gods can plan?" Meanwhile her secret schemes the goddess laid And summoned Vicwakarman\* to her aid; Called by a thought he came, behind his back Stood Hanumat: "Go, build a house of lac." They go—an old man this, and that a boy— To undertake the perilous employ. The moon conducts them to the merchant's room : "To build the house of lac you need we're come." They stretch the measuring line and mark the ground, And dig a trench seven cubits deep all round. Of lac the walls are made, of lac the floors, Of lac the beams, the rafters, and the doors,

• The architect of the gods.



### The Bengali Poem, Candi.

Of lac the struts and tie-beams every one, Of lac the roof and all that's laid thereon. The house thus built, away the builders went, While all the guild gaze on in wonderment; "Her honour's stainless," e'en Nilämbar saith, "Who 'scapes unscathed from such a certain death."

But Khullanā, at the novel risk dismayed, Turns to her old protectress for new aid. The goddess hears her prayer of anxious dread, And gently lays her hand upon her head; And tears of joy from Khullanā's eyes o'erflow As she pours forth the story of her woe. Awhile the goddess muses; then her will Calls Fire himself to avert the threatened ill. Swift at her bidding mighty Agni came, Eager to know what service she would claim. "The fiery test my votary is to brave; Lo, I entrust her in thy hands to save." He answered: "Cool as sandal will I be; Thy bidding is my highest dignity." Then as a pledge to bid her fears begone, In Khullanā's hand he lightly placed his own ; 'T was cold,-she shrank not as the fingers kissed, Not e'en the lac \* was melted on her wrist.

Around her neck the goddess' wreath she wore; And as she stepped within the fatal door She fired the hall: the flames spread far and wide, Swelled to the roof and soared aloft outside. From her chaste body, lo! their tongues retire, Cold as the sandal is that blasting fire.

\* Hindu women often wear rings on their wrists made of shell-lac.

## The Bengali Poem, Candi.

High to the sky the dark smoke-pillars rise; The gods themselves gaze down with wondering eyes. Loud as June thunder roars the o'ermast'ring blaze, E'en the Sun's horses rear in wild amaze! The rafters melt, the cross-ties, roof and all; Melt the four walls, and in one crash they fall. A shower of flowers rains downward from above,— Ne'er did this zon such high courage prove! Poor SItā's tale is all long-past and old,— We have heard it with our ears, but this our eyes behold !

Meanwhile the merchant beats his head and flings himself upon the ground; In the mid flames he fain would spring, but that his friends his hands have bound:

"Loved of my soul, I see thee not,—and life is worthless, reft of thee; Where thou art gone I too will go,—I will be with thee presently. Ah, faithless husband that I was! I left thee in the co-wife's power,— Hence all those wanderings in the wood, and all the misery of this hour!" The kinsmen weep in sympathy, with hair unbound and looks distraught; And even Lahanā feels remorse when she sees all her spite has wrought.

> The smoke cleared off, the fire burned fierce and bright, But oh ! no Khullanā appears in sight ! In agony of heart the merchant turns, And wildly rushes where it fiercest burns, When from the very centre of the flame To his stunned ears a cry of "Victory !" came, And forth she stepped and stood before the throng, Chanting aloud to all her 'victory ' song. From her thick hair the drops of moisture rained ; The shell upon her wrist was still unstained ;

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Still flowed her robe uninjured to her feet, Nor had one fibre shrivelled in the heat. As she stands radiant, her maligners all Before her feet ashamed and prostrate fall; And Cankha Datt is first to own his sin.-How blind and obstinate they all have been. "Curse us not, sister," is their common prayer; "Forgive the pride that made us what we were." Nilāmbar Dās came forward with the rest And tardily his error thus confessed : "Count me your brother,-no ill-will I bear,-Gladly I'll eat your rice if you'll prepare." Then said Rām Dān, his voice half-choked and low : "You are no mortal woman, --- now I know; Who would believe me if the tale I told? Who has e'er heard the like in days of old ?"

Triumphant thus in all the various tests, Khullanā now prepares to feast her guests. They fill the court, arranged in order round, Seated by precedence upon the ground; And Khullanā herself, all smiling, waits, And hands the rice to all in golden plates. First soup of bitter herbs to give a zest, Then potherbs with a savoury relish dressed; Fried fish; kid curry,\* and a thick rich broth; And every dish is perfumed. Nothing loth, The guests applaud the courses as they come, And fragrant steam mounts up and floats through every room. The lighter dishes next in due degree,— Sweetmeats and curds, and rice-made furmity.

 This book is written by a Çākta, i.e. a worshipper of Durgā according to Tantric rites; and Çāktas eat fish and kid's flesh. All wash their mouths, and, ending the repast, Camphor and betel-leaf are handed last.\* Each guest receives his present when they part; The merchant's open hand wins every heart. Then to Durvāsas,† patron of the clan, A horse is given whereon sat never man; While Kauçikī ‡ receives her ewer of gold, And unto Sātgān's guilds their silken bales are told.

• These lines are repeated in the same words in another part of the poem, but with a different couplet at the end:

Then pulpy durian-seeds are handed last, And juicy mangoes finish the repast.

+ A celebrated ancient sage.

‡ A form of the goddees Durgi or Candi.





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OF THE

# ASIATIC SOCIETY OF BENGAL.

## PART II.

TITLE PAGE AND INDEX

FOR

1902.





## JOURNAL

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"It will flourish, if naturalists, chemists, antiquaries, philologers, and men of science in different parts of *Asia*, will commit their observations to writing, and send them to the Asiatic Society of Calcutta. It will languish, if such communications shall be long intermitted; and it will die away, if they shall entirely cease." SIR WM. JONES.

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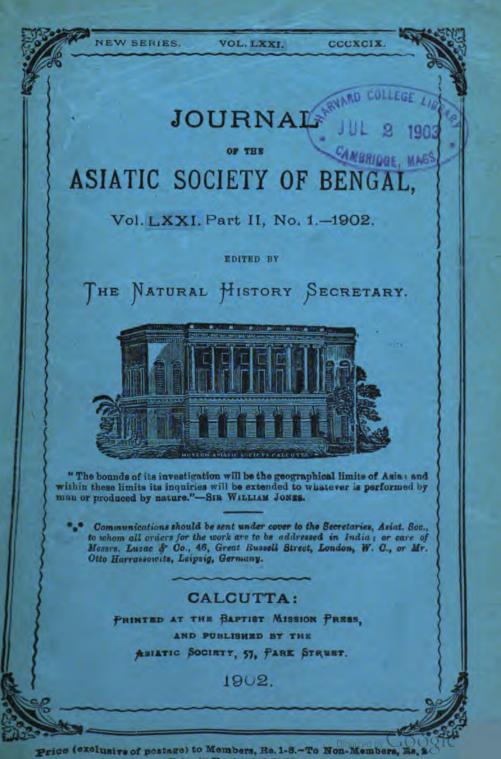
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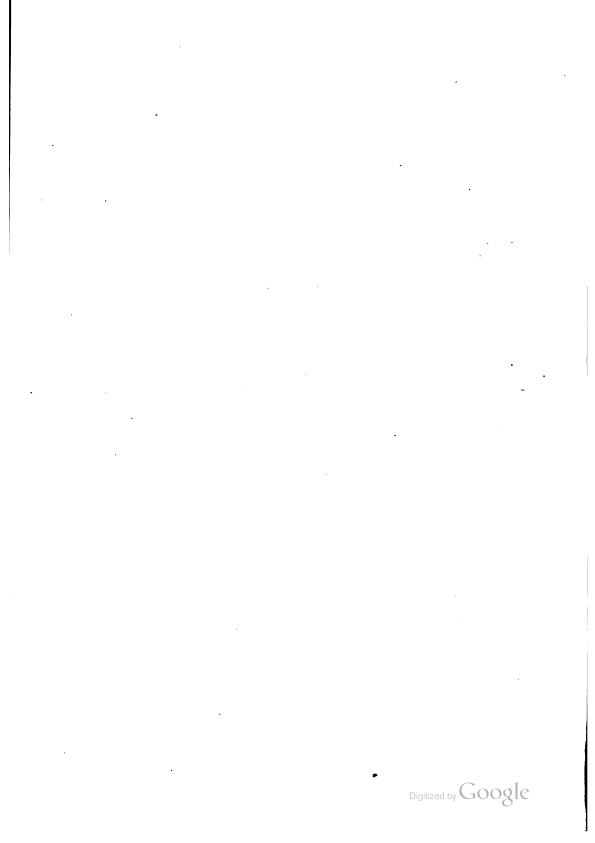
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I.—A List of the Butterflies of Hongkong in Southern China, and the foodplants of the larves.—By LIONEL DE NICÉVILLE, F.E.S., C.M.Z.S., &c.

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The Butterflies of Southern China appear to have been largely neglected by modern Entomologists, though a considerable number of the larger species were known to the ancients. For instance, Linnæus and Fabricius described many species from "China," many of these and a few others were figured by Drury, Cramer, Herbst and Donovan at the end of the eighteenth century. In 1861 Wallengren described two new species and mentioned a third obtained during the voyage of the frigate "Eugénie" which touched at Hongkong; in 1862 Felder described four species and mentioned a fifth captured by the officers of the frigate "Novara" which visited the island; in 1886 Röber described two new species of Lycanida from Hongkong; while in 1899 Kirby recorded five species from thence. The first list of the batterflies known to occur in Hongkong was compiled by Messrs. Sydney B. J. Skertchly and James J. Walker, and is published in a little book entitled "Our Island. A Naturalist's Description of Hongkong" by Mr. Sydney B. J. Skertchly, F.G.S., M.A.I. (1893). This list embraces 116 species. Of these I have omitted from the present list Ideopsis daos, Boisduval, Amathusia phidippus, Doubleday, and Pandita J. n. 1

sp., all of which are species found in the Malay Peninsula and are not likely to occur in Hongkong. But a much more important list is that by Mr. James J. Walker, R.N., F.L.S., entitled "A Preliminary List of the Butterflies of Hongkong; based on Observations and Captures made during the Winter and Spring months of 1892 and 1893," published in the Transactions of the Entomological Society of London for 1895, pp. 433-477. In this list 125 species are noted. In the present list I have omitted Ideopsis daos and Amathusia phidippus for the reason noted above. Moreover, Mr. Walker records what I consider to be five species under two names each, these being 8. Euploea (Isamia) superba, Herbst, and 9. Euplan (Trepsichrois) midamus, Linnæus. 16. Ypthima hübneri, Kirby, and 17. Ypthima argus, Butler. 78. Catopsilia catilla, Cramer, and 79. Catopsilia crocale, Cramer. 80. Terias hecabe, Linnœus, and 81. Terias mandarina, de l'Orza. 85. Pieris (Huphina) nereisa, Fabricius, and 86. Pieris (Huphina) pallida, Swinhoe. This reduces Walker's list to 118 species. In the present list 140 species are given, of which 22 marked with an asterisk (\*) have not been seen by me. The gain in number of species observed in Hongkong in the six years since Walker wrote is therefore twenty-two. Walker also mentions a specimen of Hestia lynceus, Drury, which he had seen "taken more than twenty years ago on the wharf at Kowloon-an obvious importation." This species is omitted from his list and also the present one.

My friend, Mr. E. F. Skertchly, son of Mr. Sydney B. J. Skertchly in collaboration with Mr. Kershaw, proposes to bring out an elaborate work illustrated with coloured plates on the Rhopalocera of Hongkong. A specimen of these plates I have seen chromo-lithographed in Japan, and it is an excellent production. To help in the good work of publishing this volume I have written this paper, as entomological books are scarce in Hongkong, and my assistance has been asked as regards identification of the various species and the necessary synonomy. My share of this work appears in the list below; the particulars given of the food-plants of the same are closely-allied species occurring in India and elsewhere is a help to the discovery of the transformations of the various species of butterflies in Hongkong itself. A knowledge of the food-plant of any particular butterfly is more than half the battle in discovering its larva. I may note that Messrs. Skertchly and Kershaw have for the last few years sent me consignments from time to time of Hongkong butterflies for identification; moreover, I have a superficial knowledge of them from having twice visited the colony for short periods. The butterflies of Hongkong are on the whole remarkably similar to those of Iudia, not a single genus being found in the island or on the adjoining mainland, which does not occur in India, while about ninety per cent. of the species are identical or extremely closely allied, the "local variation" being remarkably slight. This is perhaps not so much to be wondered at, as there is continuous land connection between India and Hongkong save the narrow strait about a mile wide which separates Kowloon or the mainland from the island. Moreover, Hongkong is on the same parallel of latitude as Calcutta, and has a very similar climate, though it is on the whole slightly cooler. The most interesting butterfly mentioned is, I think, Danais (Anosia) erippus menippe, Hübner, the well-known "Wanderer," a pair of which was taken in Hongkong in August last. This butterfly continues to extend its range, but has not as far as I know been yet obtained on the mainland of Asia, though it has spread from its original home in North America to Europe on the east, and right round through the Pacific Islands, Australia, and the Malayan Archipelago to the Straits of Malacca.\*

#### Family NYMPHALIDÆ.

#### Sub-family DANAINZ.

#### 1. DANAIS (Radena), SIMILIS, Linnæus.

Pupilio similis, Linnæus, Mus. Ulr., p. 299, n. 117 (1764); Radena similis, Moore, Proc. Zool. Soc. Lond., 1883, p. 223, n. 1; Lep. Ind., vol. i, p. 28 (1890); Fruhstorfer, Berl. Ent. Zeitsch., vol. xliv, p. 79 (1899); Danais (Radena) similis, Walker, Trans. Eut. Soc. Lond., p. 445, n. 5; Danais similis, var. chinensis, Felder, Verh. zool.-bot. Gesellsch. Wien, vol. xii, n. 148 (1862); Papilio aventina, Cramer, Pap. Ex., vol. i, p. 92, pl. lix, fig. F (1775).

The larva of the subgenus *Radena* has two pairs only of fleshy filaments. Though species of *Radena* occur in Ceylon, Burma and the Nicobar Isles within Indian limits, the larva and its food-plant has escaped detection.

#### 2. DANAIS (Tirumala) LIMNIACE, Cramer.

Papilio limniace, Cramer, Pap. Ex., vol. i, p. 92, pl. lix, figs. D, E, male (1775); Tirumala limniace, Moore, Proc. Zool. Soc. Lond., 1883, p. 230, n. 2; Lep. Ind., vol. i, p. 33 (1890); Fruhstorfer, Berl. Ent. Zeitsch., vol. xliv, p. 115; Danais (Tirumala) limniace, Walker, Trans. Ent. Soc. Lond., 1895, p. 445, n. 3.

The larva of *Tirumala*, like that of *Radena*, has two pairs only of fleshy filaments. It has been recorded in Iudia to feed on many plants of the Natural Order *Asclepiadeæ*, such as *Calotropis*, *Asclepias*, *Marsdenia*, *Dregea* and *Hoya*.

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<sup>\*</sup> Vide de Nicéville, Journal A. S. B., vol. lxiv, pt. 2, pp. 366-367 (1895).

#### 3. DANAIS (Tirumala) SEPTENTRIONIS, Butler.

Danais septentrionis, Butler, Ent. Month. Mag., vol. xi, p. 163 (1874).

New to the Hongkong list; I have an undoubted female from there captured in March. The food-plant of the larva has never been discovered.

4. DANAIS (Anosia) ERIPPUS MENIPPE, Hübner.

Papilio erippus Cramer, Pap. Ex., vol. i, p. 4, pl. iii, figs. A, B, male (1775); Anosia menippe, Hübner, Verz. bek. Schmett., p. 16, n. 86 (1816); Papilio plezippus Cramer (nec Linnæns), Pap. Ex., vol. iii, p. 24, pl. cevi, figs. E, F, female (1779); Herbst, Pap., vol. vii, p, 19, n. 8, pl. clvi, figs. 1, 2, male (1794).

A pair of this species was taken at Hongkong on the 4th August, 1901. The larva feeds on plants of the Natural Order Asclepiades.

#### 5. DANAIS (Limnas) CHRYSIPPUS, Linnæus.

Papilio chrysippus, Linnæns, Syst. Nat. Ins., ed. x., vol. i, pt. 2, p. 471, n. 81 (1758); Limnas chrysippus, Moore, Proc. Zool. Soc. Lond., 1883, p. 237, n. 1; Danais (Limnas) chrysippus, Walker, Trans. Ent. Soc. Lond., 1895, p. 446, n. 7; Limnas bowringi, Moore, Proc. Zool. Soc. Lond., 1883, p. 239, n. 6; Fruhstorfer, Stet. Ent. Zeit., vol. lix, p. 412 (1898); Limnas bowringii [sic], Moore, Lep. Ind., vol. 1, p. 44 (1890).

Dr. F. Moore in 1893 recorded *L. chrysippus* from South China, but described *L. bowringi* as a new species from Hongkong, which also is in South China. In 1890, he says that it is "doubtfully of racial value." The larva of *Limnas* has three pairs of fleshy filaments; in Hongkong it has been reported to feed on *Asclepias curassavica*, Linn., and in India it feeds on plants of the Natural Order *Asclepiadese*, such as *Calotropis* and *Asclepias*.

#### 6. DANAIS (Salatura) PLEXIPPUS, Linnæus.

Papilio plesippus, Linnæus, Syst. Nat. Ins., ed. x, vol. i, pt. 2, p. 471, n. 80 (1758); Papilio genutia, Cramer, Pap. Ex., vol. iii, p. 23, pl. covi, figs. C, D, male (1779); Salatura genutia, Moore, Proc. Zool. Soc. Lond., 1883, p. 240, n. 1; Lep. Ind., vol. i, p. 48 (1890); Danais (Salatura) genutia, Walker, Trans. Ent. Soc. Lond., 1895, p. 445, n. 6.

The larva of Salatura has three pairs of fleshy filaments, and in India feeds on plants of the Natural Order Asclepiadese, such as Cynanchum, Geropegea and Passularia, in Ceylon on Raphis, Ceropegea and Raphanus.

#### 7. \* DANAIS (Parantica) MELANOIDES, Moore.

Parantica melanoides, Moore, Proc. Zool. Soc. Lond., 1883, p. 847, n. 1; Danais (Parantica) melanoides, Welker, Tran Ent. Soc. Lond., 1895, p. 445, n. 4. The larva of *Parantica* has two pairs only of fleshy filaments. The larva has never been discovered, but that of the allied species, *P. aglea*, Cramer, has been recorded to feed on plants of the natural order *Asclepiadeæ*, such as *Cryptolepis*, *Calotropis*, *Tylophora*, in South India and Ceylon.

#### 8. DANAIS (Caduga) SITA, Kollar.

Danais sita, Kollar, Hugel's Kaschmir, vol. iv, pt. 5, p. 424, n. 1, pl. vi, figs. 1, 2, male (1844); Danais (Caduga) sita Mackinnon and de Nicéville, Journ. Bomb. Nat. Hist. Soc., vol. xi, p. 213, n. 6, pl. U, figs. 1a, 1b, larva; 1c, 1d, pupa (1897); Danais (Caduga) tytia, Walker, Trans. Ent. Soc. Lond., 1895, p. 444, n. 2.

The larva of *Caduga* has two pairs only of fleshy filaments, and feeds in India on *Marsdenia*, natural order *Asclepiadese*. Hongkong specimens of *D. sita* agree absolutely with Indian ones.

#### 9. EUPLEA (Crastia) GODARTII, Lucas.

Euplaa godartii, Lucas, Rev. et Mag. Zool., second series, vol. v, p. 319 (1853); Euplaa (Crastia) godarti (sic), Walker, Trans. Ent. Soc. Lond., 1895, p. 447, n. 10.

The larva of *Crastia* has four pairs of fleshy filaments. Major (now Colonel) C. H. E. Adamson, C.I.E., in "Notes on the *Danainse* of Burmah," p. 12 (1889), records that he has "bred *E. godartii* from caterpillars found feeding on orange trees," *Citrus* sp., natural order *Butacese*. More probable plants would, I think, be species of *Holarrhena*, *Nerium* and *Ichnocarpus* of the natural order *Apocynacese*, or *Streblus* and *Ficus* of the *Urticacese*.

#### 10. EUPLEA (Crastia) KINBERGI, Wallengren.

Euplæa kinbergi, Wallengren, Wien, Ent. Monatsb., vol. iv, p. 35, n. 8 (1860); Kongl. Svensk. Fregatten Eugenies Ress, Zoologi, pt. v, p. 352, n. 4 (1861); Tronga kinbergi, Moore, Proc. Zool. Soc. Lond., 1883. p. 269, n. 12; Crastia kinbergi, de Nicéville, Journ. A. S. B., vol. lxx, pt. 2, pp. 20, 22 (1901), Euplæa (Crastia) kinbergi, de Nicéville, Journ. Bomb. Nat. Hist. Soc., vol. xiii, p. , n. , pl. , fig. , female; Euplæa lorquinii, Felder, Reise Novara, Lep., vol. ii, p. 840, n. 472 (1865); Crastia lorquini (sic), Moore, Lep. Ind., vol. i, page 91 (1890); Euplæa felderi, Butler, Proc. Zool. Soc. Lond., 1866, p. 275, n. 20; Crastia felderi, Moore, Lep. Ind., vol. i, p. 91 (1890); Euplæa (Crastia) frauenfeldi (sic), Walker (nec) Felder, Trans. Ent. Soc. Lond., 1895, p. 447, n. 11; Crastia frauenfeldii, Moore, Lep. Ind., vol. i, p. 87, pl. xxviii, figs. 1, 1a, male (1890).

This very variable and common butterfly is restricted to Southern China, and has been bred on Strophanthus divergens, Grah.—natural order Apocynacess. The larva will probably be found to feed on Nerium, natural order Apocynacess, or on Ficus, natural order Urticaces.

#### 11. EUPLOEA (Isamia) MIDAMUS, Linnobus.

Papilio midamus, Linnæus, Syst. Nat. Ins., ed. x, vol. i, pt. 2, p. 470, n. 75 (1758); Isamia midamus, Moore, Proc. Zool. Soc. Lond., 1883, p. 812, n. 5, pl. xxxii, fig. 5, male; Lep. Ind., vol. i, p. 132 (1891); Euplæa (Trepsichrois [sic!]) midamus, Walker, Trans. Ent. Soc. Lond., 1895, p. 446, n. 9; Papilio superbus, Herbst, Pap., vol. vi, p. 14, n. 3, pl. cxix, fig. 3, female; pl. cxx, figs. 1, 2, male (1793)\*; Euplæa superba, Felder, Verh. zool.-bot. Gesellsch. Wien, vol. xii, p. 488, n. 147 (1862); Isamia superba [sic], Moore, Proc. Zool. Soc. Lond., 1883, p. 311, n. 3; Lep. Ind., Vol. i. p. 132 (1891); Kirby in Hübner's Ix. Schmett., new edition, Vol. 1, p. 4, pl. xxiv, figs. 3, 4, female (Limnas Mutabilis Midamus [sic] on plate) (1894); Euplæa (Isamia) superba [sic], Walker, Trans. Ent. Soc. Lond., 1895, p. 446, n. 8; Danais alopia, Godart, Enc. Meth., vol. ix, p. 177, n. 4 (1819); Isamia alopia, Moore, Proc. Zool. Soc. Lond., 1883, p. 313, n. 6, pl. xxxii, fig. 7, male; Lep. Ind., vol. i, p. 132 (1891); Isamia sinica, Moore, Proc. Zool. Soc. Lond., 1883, p. 312, n. 4, Lep. Ind., vol. i, p. 132 (1891).

There are several mistakes in the references as usually given. Herbst calls his fig. 3 on pl.  $cxix a \sigma$ , while it is a Q, and his figs. 1 and 2 on pl. cxx a Q, while it is a  $\sigma$ . Dr. F. Moore sets this right in Proc. Zool. Soc. Lond., 1883, page 311, n. 3, as regards the Q; but on page 313, n. 6, erroneously calls figs. 1 and 2 Q instead of  $\sigma$ . He also uses *superbu* instead of *superbus* as originally written, and refers to plate 102 instead of plate 122. He makes two species out of Herbst's figures, while they represent one species only.

Dr. F. Moore in 1883 and again in 1891 records and keeps distinct four species of *Isamia* from South China. These four species are in my opinion one and the same species, which at Hongkong, and doubtless wherever it occurs in Southern China, is a most variable one. In Hongkong the larva has been reported to feed on *Strophanthus divergens*, Grah., Natural Order *Apocynacese*.

#### Subfamily SATYRINÆ.

#### 12. MYCALESIS (Calysisme) MINEUS, Linnæus.

Papilio mineus Linnæns, Syst. Nat. Ins., ed. x, vol. i, pt. 2, p. 471, n. 84 (1758); Calysisme mineus Moore, Trans. Ent. Soc. Lond., 1880, p. 162; Lep. Ind., vol. i, p. 187 (1892); Mycalesis mineus, Walker, Trans. Ent. Soc. Lond., 1895, p. 447, n. 13; Mycalesis mineus, var. confucius, Leech, Butt. China, Japan and Corea, p. 12, pl. ii, fig. 7, male (1892); Kirby, The Entomologist, vol. xxxii, p. 31 (1899).

The var. confucius is the dry-season form of M. mineus found in China. The larva in India feeds on grasses.

13. MYCALESIS (Calysisme) HORSFIELDII, MOORE.

Calysisme horsfieldii, Moore, Lep. Ind., vol., i, p. 197, pl. lxvi, figs. 2, 2a, 2b,

male, wet-season form; 2c, male, dry-season form (1892);? Mycalesis perseus, Wallace (nec Fabricius), Trans. Ent. Soc. Lond., 1895, p. 447, n. 12.

Only two species of *Mycalesis* have hitherto been found in Hongkong. Walker gives *mineus* and *perseus*. The latter is stated by Dr. F. Moore in Lep. Ind., vol. i, pp. 177, 178, to have a very wide range, being found almost throughout India, Ceylon, Burma, the Malay Peninsula and many of the islands of the Malay Archipelago, and in Hainan and Formosa. It may, as Walker states, be found in Hongkong, but it is more probable, I think, that what he identified as *M. perseus* is the comparatively common *M. horsfieldii*, which has been described since Mr. Walker wrote his paper. It has never been bred, but its larva will almost certainly be found on grasses.

#### 14. LETHE BUROPA, Fabricius.

Papilio europa, Fabricius, Syst. Ent., p. 500, n. 247 (1775); Lethe europa, Walker, Trans. Ent. Soc. Lond., 1895, p. 448, n. 14; Moore, Lep. Ind., vol. i, p. 256 (1892).

The larva feeds on Bambusa Sp., natural order Graminese.

#### 15. LETHE CONFUSA, Aurivillius.

Lethe confusa, Aurivillius, Ent. Tids., vol. xviii, p. 142, n. 15 (1897); ? Lethe verma, Wulker, Trans. Ent. Soc. Lond., 1895, p. 448, n. 15; Lethe rohria, Kirby (nec Fabricius), The Entomologist, vol. xxxii, p. 31 (1899).

Mr. James J. Walker records Lethe verma, Kollar, from a single specimen taken in the Happy Valley, Hongkong, in March. This is, I think, probably an incorrect identification, the present species being meant. L. verma is a common species in the hills of Northern India, and is found in the hills of Western China, but not I believe in Western China. As the name implies, there has been much confusion regarding this species. Until recently it has been always known as L. rohria Fabricius, until Dr. Aurivillius pointed out that the true rohria is an older name for the Lethe dyrta of Felder. The larva will almost certainly be found to feed on the leaves of bamboo.

#### 16. YPTHIMA AVANTA, MOORE.

Ypthima avanta, Moore, Proc. Zool. Soc. Lond., 1874, p. 567; Elwes and Edwards, Trans. Ent. Soc. Lond., 1893, p. 33, n. 38, pl. i, fig. 27, clasp of male; Ypthima ordinata, Batler, Proc. Zool. Soc. Lond., 1880, p. 148, pl. xv, fig. 3; Ypthima hubneri, Walker, Trans. Ent. Soc. Lond., 1895, p. 448, n. 16;? Ypthima argus, Walker, Trans. Ent. Soc. Lond., 1895, p. 448, n. 16;? Ypthima

T. avanta i  $\infty$  seasonally dimorphic, avanta is the dry-season form,

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while ordinata is the wet-season form. I have ventured to put Walker's two species hübneri [recte huebneri] and argus under avanta, as I do not believe that either of them are found in Hongkong, and that they have been wrongly identified. *T. avanta* is found in the Western Himalayas, in the plains of the North-Western Provinces, at Ranchi and Bholahat in Maldah, both in the plains of Bengal, in the Eastern Himalayas, in the Ganjam district of Eastern India, throughout Burma, and on the West River in Southern China. It has not been bred, but the larva will be found on grasses.

#### 17. MELANITIS ISMENE, Cramer.

Papilio ismene, Cramer, Pap. Ex., vol. i, p. 40, pl. xxvi, figs. A, B, male, dryseason form (1775); Melanitis determinata, Butler, Proc. Ent. Soc. Lond., 1885, p. vi, Melanitis leda, Walker, Trans. Ent. Soc. Lond., 1895, p. 449, n. 18.

This species in seasonally dimorphic, the dry-season form being ismene, the wet-season form is determinata. The larva feeds on rice, Oryza sativa, Linnæus, on large, coarse grasses, all of the natural order Gramineæ.

#### 18.\* MELANITIS BELA, MOOPE.

Melanitis bela, Moore, Horsfield and Moore, Cat. Lep. E.I.C., vol. i, p. 223, n. 465 (1857); Cyllo aswa, Moore, Proc. Zool. Soc. Lond., 1865, p. 769; Melanitis aswa, Walker, Trans. Ent. Soc. Lond., 1895, p. 449, n. 19.

This species is also seasonally dimorphic, *bela* being the wet-season form, *aswa* the dry-season form. Walker records one specimen taken at Kowloon late in 1891. I have not seen it from thence, but do not doubt the correctness of the record. It occurs in Western China, and as far westwards again as Kashmir. It has not been bred.

#### Subfamily AMATHUSIINÆ.

#### 19. DISCOPHORA TULLIA, Cramer.

Papilio tullia, Cramer, Pap. Ex., vol. i, p. 127, pl. lxxxi, figs. A, B, female (1775); Discophora tullia, Staudinger, Ex. Schmett., p. 189, pl. lxiii, female (1887); Walker, Trans. Ent. Soc. Lond., 1895, p. 449, n. 20; Moore, Lep. Ind., vol. ii, p. 197 (1895); Fruhstorfer, Berl. Ent. Zeitsch., vol. xlv, p. 13 (1900).

As far as is known, the larvæ of all the species of this genus feed on Bambusa sp., Natural Order Gramineæ, and are gregarious, very hairy, and are frequently mistaken for the larvæ of moths.

#### 20. CLEROME EUMEUS, Drury.

Danais Festivus eumeus, Drury, Ill. Ex. Ins., vol. i, p. 4, pl. ii, figs. 3, male, upper-and underside (1770); Clerome eumeus, Westwood, Trans. Ent. Soc. Lond.,

second series, vol. iv, p. 183, n. 2 (1858); Butler, Cat. Fab. Lep. B. M., p. 44, n. 1 (1869); Wulker, Trans. Ent. Soc. Lond., 1895, p. 450, n. 21; Moore, Lep. Ind., vol. ii, p. 209 (1895); Kirby, The Eutomologist, vol. xxxii, p. 31 (1899); Papilio eumea (sic), Cramer, Pap. Ex., vol. ii, p. 132, pl. clxxxiii, figs. C, D, female (1777); Papilio gripus Fabricius, Syst. Ent., App., p. 829, n. 178-79 (1775); Sp. Ins., vol. ii, p. 58, n. 255 (1781); Eut. Syst., vol. iii, pt. 1, p. 149, n. 457 (1793); Herbst, Pap., vol. vi, p. 77, n. 41, pl. cxxxv, figs. 3, 4, female (1793); Satyrus gripus, Godart, Enc. Meth., vol. ix, p. 497, n. 70 (1819); Papilio grispus (sic), Fabricius, Mant. Ins., vol. ii, p. 28, n. 294 (1787); Papilio decempunctatus Goeze, Ent. Beytr., vol. iii, pt. 1, p. 212, n. 31 (1779).

No species of *Clerome* has, I believe, ever been bred. The larva will almost certainly be found to feed on *Bambusa* sp., Natural Order *Graminese*.

It is remarkable that no species of the subfamily *Elymniinæ* has been recorded from Hongkong. As the importation of ornamental palms on which the larvæ feed is probably considerable from countries where species of the group are common, it is more than probable that species of *Elymniinæ* will become naturalised in the island and on the adjoining mainland.

#### Subfamily NYMPHALINÆ.

#### 21.\* CHARAXES (Eulepis) ATHAMAS, Drury.

Papilio Eques achivus athamas, Drnry, Ill. Ex. Ins., vol. i, p 5, pl. ii, figs. 4, mals, upper and underside (1770); Papilio athamas, Cramer, Pap. Ex., vol. i, p. 140, pl. lxxxix, figs. C, D, male (1776); Walker, Trans. Ent. Soc. Lond., 1895, p. 458, n. 52; Moore, Lep. India., vol. ii, p. 254 (1895); Bulepis athamas, Rothschild and Jordan, Nov. Zool., vol. v, pl. x, figs. 1, 2, 3, 5, 7, 8, 9, 10, 11, male; 4, female; pl. xi, figs. 1, 2, 5, 6, 7, 10, 11, 12, male; 3, 4, 8, 9, female (1898); vol. vi, p. 245, n. 12 (1899).

Mr. James J. Walker records that he once saw this butterfly in Hongkong. Messrs Rothschild and Jordan under b. E. athamas athamas record it from South China (Hongkong), but add "Authentic Chinese specimens we have not examined." I have seen no specimen from Hongkong. The larva in Ceylon feeds on *Cæsalpinia*, Natural Order *Leguminosæ*; in South India on *Grewia* sp. Natural Order *Tiliaceæ*, on *Cæsalpinia*, *Painciana*, *Adenanthera*, *Acacia*, and *Albizzia*, Natural Order *Leguminosæ*; and in the Western Himalayas on *Acacia* and *Albizzia*.

#### 22. CHARAXES POLYXENA POLYXENA, CRAMOR.

Papilio polyzena, Oramer, Pap. Ex., vol. i, p. 85 pl. liv, figs. A, B, female (1775); Haridra polyzena, Moore, Lep. Iud., vol., ii, p. 247 (1896); Charaves polyzena polyzena, Rothschild and Jordan, Nov. Zool., vol. vii, p. 334 (1900); Nymphalis polyzo, Godart, Enc. Meth., vol. ix, p. 399, n 169 (1819); Papilio bernardus, Fabricius, Ent. Syst., vol. iii, pt. i, p. 71, n. 223 (1793); Nymphalis (Charaves) bernardus, J. 11. 2

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Donovan, Ins. China (Westwood's edition), p. 63, pl. xxxiv, figs. 1, 2, female (1842); Charazes bernardus, Butler, Cat. Fab. Lep. B. M., p. 50, n. 2 (1869); Walker, Trans. Ent. Soc. Lond., 1895, p. 459, n. 53; Haridra bernardus, Moore, Lep. Ind., vol. ii, p. 246 (1896); Dozocopa epilais, Hubner, Verz. bek. Schmett., p. 50, n. 464 (1816).

My material from Hongkong can superficially be broken up into two distinct groups, one with pale tawny bands on the upper side of both wings, of which I have four males and one female, the males are dated 17th and 26th April, and 5th December, while one has no date; the female also bears no date: the other with white bands, of which I have two pairs, one male is dated 14th July, the other is undated; one female is dated 21st July, the other bears no date. P. polyzena was originally described from China, and my single tawny banded example of that sex agrees very well with Cramer's figure, but that the "tail" to the binding from the third median nervule is much longer (in Cramer's specimen it was probably broken off), and the dark and light markings of both wings on the underside are more strongly contrasted in Cramer's figure than in my specimen. The tawny banded males are extremely constant, and differ but little from my female; the "tail" to the hindwing is of course much shorter, and the submarginal series of black spots on the upperside of that wing instead of being each centred with a white spot has the anteriormost spot in one instance and the two anteriormost spots in three instances so marked. Of the white banded group in one male the band consists of four portions divided by the veins, the anterior the smallest, the posterior the largest, with a minute white spot anterior to the first of these with no spots beyond it whatever; in my other male the band consists of eight spots, there being two (instead of one as in the firstdescribed specimen) in the upper discoidal interspace, and another in the subcortal interspace, as well as the one on the sutural area. The markings of the hindwing on the upperside also differ in my two male specimens, in the first described of these the discal band is fulvous, in the latter it is anteriorly white. My two white banded females also differ the one from the other, and neither of them agree with Donavou's figure, as that figure shows no discal band on the upperside of the hindwing, while in my specimens this band is prominent. In my two examples one has on the upperside of the forewing three fulvous-white spots anterior to the third median nervule, which are absent in the other. My specimens agree fairly well with Dr. Moore's description of that sex under the name of H. bernardus. Mr. J. O. Westwood remarked on Donovan's figures that "This uncommonly rare Chinese butterfly has not been figured in any other work. Fabricius described it only from the drawings of Jones. I possess a specimen in which the central

fascia is nearly white, and is continued half way across the posterior wings, and the black spots in the latter are very broad and confluent. without white in the centre." Dr. Moore separated H. bernardus from H. polyzena, and noted that "This species [bernardus] is distinct from H. polyzena, Cramer, and is allied to the Indian H. jalinder, Butlér, and H. hippanax, Felder." Fabricius described the medial band across the forewing on the upperside in P. bernardus as "flava," which is yellow, while Dr. Moore calls it "bluish-white." Donovan's figure of P. bernardus shows this band white just tinged with yellow. Fabricius' description of P. bernardus evidently applies to Cramer's figure of P. polyxena. In describing the male of H. bernardus Dr. Moore says that the white band on the upperside of the forewing ends "At the lower [first] median veinlet." This is probably a slip for submedian nervure. Messrs. Rothschild and Jordon give seven local races of Charazes polyzena, of which the Chinese form "G. polyzena polyzena" is the last. They consider the white and yellow banded forms to be one and the same species, the species being dichromatic. It has never been bred.

#### 23. APATURA (Rohana) PARYSATIS, Westwood.

Apatura parisatis, Westwood, Gen. Diurn. Lep., vol. ii, p. 305, n. 20, note (1850); A. parisatis, Standinger, Ex. Schmett., p. 156, pl. lv, male and female (1886); Rohana parisatis, Moore, Lep. Cey., vol. iii, p. 17, pl. cxciv, figs. 2, 2a, male; 2b, 2c, female (1896); Apatura parysatis, Walker, Trans. Ent. Soc. Lond., 1895, p. 452, n. 27.

The larva of A. parysatis has been bred in Hongkong on (hiatus in MS.)

That of the allied A. carniba, Moore, feeds in Ceylon and South India on Celtis, Natural Order Urticaces.

#### 24. PARHESTINA ASSIMILIS, Linnæus.

Papilio assimilis, Linnæus, Linnæus, Syst. Nat. Ins., ed. x, vol. i, pt. 2, p. 479, n. 129 (1758); Mus. Ulr., p. 300, n. 118 (1764); Clerck's Icones Ins., vol. i, pl. xvi, fig. 1 (1759); Drury, Ill. Ex. Ins., vol. i, p. 33, pl. xvii, figs. 3, 4, male (1770); Cramer, Pap. Ex., vol. ii, p. 90, pl. cliv, fig. A, female (1777); Herbst, Pap., vol. vi, p. 43, n. 24, pl. cxxvi, figs. 4, 5, male (1793); Esper, Ausl. Schmett., p. 230, pl. lvii, fig. 1 (?1798); Nymphalis assimilis, Godart, Enc. Méth., vol. ix, p. 393, n. 151 (1819); Hestina assimilis, Walker, Trans. Ent. Soc. Lond., 1895, p. 452, n. 28.

The larva of this species feeds in Hongkong on (hiatus in MS.)

#### 25. PARHESTINA MENA, MOORE.

Hestina mena, Moore, Ann. and Mag. of Nat. Hist., third series, vol. i, p. 48, n. 3 (1858); Leech, Butt. from China, Japan, and Corea, vol. i, p. 143, pl. xx, figs. 3, 4 male (1892); Walker, Trans. Ent. Soc. Lond., 1895, p. 452, n. 29; Diadema

mena, Batler, Ann. and Mag. of Nat. Hist., vol. xvi, p. 398, n. 3 (1865); Parhestina mena, Moore, Lep. Ind., vol. iii, p. 36, pl. ccii, figs. 1, 1a, female (1896); Hestina nigrivena, Leech, The Ent., vol. xxiii, p. 31 (1890); Grose-Smith and Kirby, Rhop. Ex., pl. Hestina i, figs. 1, 2, male (1891); Hestina viridis, Leech, The Ent., vol. xxiii, p. 32 (1890).

Mr. Leech has himself sunk H. viridis to the rank of a variety of H. mena. From his figure of it (l.c., fig. 3) the underside of the hindwing has "the costa above the costal nervure and the abdominal fold yellow." Mr. Leech notes, however, that male specimens of var. viridis received subsequent to the description of the species have none of this yellow coloration. I am a little doubtful if this character is not sufficient to separate H. viridis, Leech, and H. nicevillei, Moore, from P. assimilis, Linnæus, and P. mena, Moore. H. mena was originally described from "North India," in 1895 Mr. Walker recorded it from Hongkong, but Dr. Moore in 1896 said the habitat is unknown. I have seen but a single pair from Hongkong, the female of which agrees very closely with Dr. Moore's figure of that sex (not a male as stated). Ι would draw especial attention to a series of four or five submarginal pink spots on both surfaces of the hindwing which are visible in my specimens, in Messrs Grose-Smith and Kirby's figures and in Mr. Leech's figure No. 4 of var. nigrivena. These spots occupy the same position exactly as the crimson spots in P. assimilis, which has led me to suspect that P. mena is not improbably a dimorphic form of that species. The genus Parhestina is evidently in a very plastic state, and it appears to me that the process of mimicry to species of Danuis is now actively going on. Typical P. assimilis with its brilliant crimson spots is a conspicuous species, and it is evident that it would be advantageous to it to become less gandily coloured and to be able to pass itself off as a nauseous Danais. Mr. James J. Walker records the breeding of a specimen in Hongkong, but does not mention the foodplant of the larva, which still remains unknown.

#### 26. EUTHALIA PHEMIUS, Doubleday and Hewitson.

Adolias phemius, Doubleday and Hewitson, Gen. Diurn. Lep., vol. ii, p. 291, n. 18 (1850); Itanus phemius, pl. xl, fig. 4, male (1850); id., Moore, Trans. Ent. Soc. Lond., new series, vol. v, p. 65, n. 4, pl. iii, fig. 3, male (nec femule) (1859); Euthalia phemius Staudinger, Ex. Schmett., p. 153, pl. liv. mule (nec femule) (1886); Walker, Trans. Ent. Soc. Lond., 1895, p. 457, n. 47; Moore, Lep. Ind., vol. iii, p. 123, pl. ccxxxviii, figs. 1, 1a, male; 1b, 1c, female (1896); Adolias sancura, Moore, Horsfield and Moore, Cat. Lep. Mus. E.I.C., vol. i, p. 195, n. 394 (1857); Trans. Ent. Soc. Lond., new series, vol. v, p. 78, n. 34, pl. ix, fig. 1, female (1859).

Mr. James J. Walker having taken a pair coupled of this butterfly in Hongkong finally settles the question as to the opposite sexes of the

insect. He also obtained a pupa attached to a twig under some litchi trees (*Nephelium Lit-chi*, Camb., Natural Order Sapindaceæ), but that cannot be the food-plant of the larva in India, as it grows wild nowhere in this country, while the butterfly is common in the Eastern Himalayas, Assam, Upper Burma, and Indo-China. Its food-plant still remains unknown.

#### 27. LIMENITIS (Ladaga) CAMILLA, Linnæus.

Papilio camilla, Linnæus, Mus. Ulr., p. 804, n. 122 (1764); Nymphalis camilla, Aurivillius, Kongl. Svenska Vet.—Akad. Hand., vol. xix, n. 5, p. 101, n. 122 (1882); Limenitis camilla, Kirby in Allan's Nat. Hist., Butterflies, vol. i, pt. 1, p. 142, p. 145, underside of normal imago, upper and underside of black variety; pl. xxiii. fig. 3, upperside of normal imago; pl. iii, fig. 7, larva (1896); Papilio prorsa, Linnæus, Mus. Ulr., p. 303, n. 121 (1764), nec Papilio prorsa, Linnæus, Syst. Nat. Ins., ed. x, vol. i, pt. 2, p. 480, n. 134 (1758); Papilio sibilla, Linnæus, Syst. Nat. Ins., ed. xii, vol. i, pt. 2, p. 781, n. 186 (1767); Limenitis sibylla, Leech, Butt. from China, Japan, and Corea, vol. i, p. 185 (1892); Limenitis sidii, var. japanica, Ménétriès, Cat. Lep. Pét., pt. 2, p. 103, n. 566 (1855); Ladaga japonica, Moore, Lep. Ind., vol. iii, p. 174 (1896).

This is a new record from Hongkong, though common in Japan, Corea, Amurland and Europe. Dr. Moore keeps the Japan form as a distinct species under the name *L. japanica*. Mr. Leech says that in Japan the larva feeds on *Lonicera japanica*, Thunberg, Natural Order *Caprifoliaces.* In England "The White Admiral" feeds also on honeysuckle.

#### 28.\* ATHYMA SULPITIA, Cramer.

Papilio sulpitia, Cramer, Pap. Ex., vol. iii, p. 37, pl. coxiv, figs. E, F (1779); Herbst, Pap., vol. ix., p. 95, n. 19, pl. coxl, figs. 3, 4 (1798); Athyma sulpitia, Walker, Trans. Ent. Soc. Lond., 1895, p. 456. n. 45; Parathyma sulpitia, Moore, Lep. Ind., vol. iii, p. 176 (1896). Nymphalis strophia, Godart, Euc. Meth., vol. ix, p. 431, n. 257 (1823).

The larva of this butterfly has never been found.

#### 29., ATHYMA PERLUS, Linnæus.

Papilio perius, Linnæns, Syst. Nat. Ins., ed. x, vol. i, pt. 2, p. 471, n. 79 (1758); Athyma perius, Walker, Trans. Ent. Soc. Lond., 1895, p. 456, n. 43; Moore, Lep. Ind., vol. iii, p. 186 (1896); Papilio leucothoë, Linnæns, Syst. Nat., ed. x, p. 478, n. 122 (1758); Limenitis leucothoë, Donovan, Ins., China, new edition, p. 65, pl. xxxv, fig. 3 (1842); Papilio polyzina, Donovan, Ins., China, first edition, pl. xxxv, fig. 3 (1799).

The larva has been recorded to feed in Java on a species of *Phyllan*thus, Natural Order *Euphorbiacem*; in South India it feeds on two species of *Glochidion*, Natural Order *Euphorbiacem*.

#### 30. ATHYMA ASITA, MOORE.

A. asita, Moore, Proc. Zool. Soc. Lond., 1858, p. 13, n. 8; Pantoporia asita, Moore, Lep. Ind., vol. iii, p. cclxiii, figs. 2, male; 2a, female (1897); Athyma nefte, Walker (nec Cramer) Trans. Ent. Soc. Lond., 1895, p. 456, n. 44.

This insect has never been bred.

#### 31. ATHYMA SELENOPHORA, Kollar.

Limenitis selenophora, Kollar, Hügel's Kaschmir, vol. iv, pt. 2, p. 426, n. 1, pl. vii, figs. 1, 2, male (1844); Athyma selenophora, Walker, Trans. Ent. Soc. Lond., 1895, p. 457, n. 46; Pantoporia selenophora, Moore, Lep. Ind., vol. iii, p. 205 (1897); Athyma bahula, Moore, Proc. Zool. Soc. Lond., 1858, p. 12, n. 3, pl. i, fig. 2, female.

The larva in South India feeds on Adina cordifolia, Hook. f., Natural Order Rubiacese.

#### 32.\* NEPTIS ANTILOPE, Leech.

Neptis antilope, Leech, The Entomologist, vol. xxiii, p. 35 (1890); Butt. from China, Japan, and Corea, vol. i, p. 197, pl. xviii, fig. 2, male (1892).

Mr. Leech records having taken two specimens of this species at Hongkong in March, 1886. It has never been bred.

#### 33. NEPTIS COLUMELLA, Cramer.

Papilio columella, Cramer, Pap. Ex., vol. iv, p. 15, pl. ccxcvi, figs. A, B, female (1780); Neptis columella, Walker, Trans. Ent. Soc. Lond., 1895, p. 454, n. 36; Andrapana columella, Moore, Lep. Ind., vol. iii, p. 220 (1897); Neptis ophiana, Moore, Proc. Zool. Soc. Lond., 1872, p. 561; Neptis martabana, Moore, Trans. Ent. Soc. Lond., 1881, p. 310; Neptis ophiana, var. nilgirica, Hampson, Journ. A.S.B., vol. lvii, pt. 2, p. 353, n. 57 (1888); Andrapana columella singa, Fruhstorfer, Berl. Ent. Zeitsch., vol. xliv, p. 286 (1899).

This butterfly has never been bred.

#### 34. NEPTIS EURYNOME, Linnæus.

Papilio eurynome, (? Papilio hylas, male, nec. female), Linnæus, Syst. Nat. Ins., ed. x, vol. i, pt. 2, p. 486, n. 173 (1758); Limenitis eurynome, Westwood's ed. Donovan's Ins. China, p 66, pl. xxxv, fig. 4, female (1842); Neptis eurynome, Moore, Proc. Zool. Soc. Lond., 1874, p. 570; Lep. Ind., vol. iii, p. 244 (1897); Walker, Trans. Ent. Soc. Lond., 1895, p. 454, n. 35; Papilio leucothoë, Clerck, Icones Ins., vol. iii, pl. v, fig. 4 ); Donovan, Ins. China, first edition, pl. xxxv, fig. 3, female (1799); Papilio aceris, Esper, Eur. Schmett., vol. i, pt. 2, pl. lxxxii, fig. 1, female (1783); Neptis hainana, Kirby (nec Moore), The Entomologist, vol. xxxii, p. 31 (1899).

The synonymy given above is maiuly taken from Dr. Moore's Lep. Ind. Linnæus' Syst. Nat. Ins., tenth edition, is not available, so I am

unable to check the first entry; though apparently the name given therein on p. 486, n. 173, is hylas and not eurynome. If this be so, eurynome cannot be ascribed to Linnæus, but should be credited to Westwood, as was done by Dr. Moore in 1874. Donovan's fig. 4 of pl. xxxv applies to this insect: he called it leucothoë, mistaking the insect for the Athyma leucothoë described by Linnæus as Papilio leucothee, which itself is a synonym of the older Papilio [Athyma] perius, Linnæus. As there is an older Neptis named leucothoë of Cramer the species under consideration cannot be called Neptis leucothoë, Donovan. Mr. Kirby records Neptis hainana, Moore, originally described from Hainan Island, China, from Hongkong, but Dr. Moore considers that species to be distinct from the Hongkong one, so as I have no Hainan specimens I have followed him in this. This group of the genus occurs almost everywhere in the East, and in my opinion has received far too many names. Wherever the seasons are markedly wet and dry, seasonal dimorphism is very strongly marked, particularly so in Hongkong. The insect in Hongkong has not been bred, but the transformations of its Indian allies are well known, N. varmana, Moore, in South India being found in the larval state on peas of various kinds, Natural Order Leguminosæ.

#### 35.\* PRECIS ATLITES, Linnerus.

Papilio atlites, Linnæus, Cent. Ins., p. 24, n. 72 (Amoen., vol. vi, p. 407), (1763); Junonia atlites, Walker, Trans. Ent. Soc. Lond., 1895, p. 453, n. 31, Moore, Lep. Ind., vol. iv, p. 69 (1899).

The larva in Java feeds on a species of Achyranthes, Natural Order Amarantacese, and in South India on Hygrophila and Barleria, Natural Order Acanthacese.

#### 36. PRECIS ORITHYA, Linnæus.

Papilio orithya, Linnæus, Syst. Nat. Ins., ed. x, vol. i, pt. 2, p. 473, n. 94 (1758); Cramer, Pap. Ex., vol. i, p. 28, pl. xix, figs. C, D, female; pl. xxxii, figs. E, F, male (1775); Cynthia orithya, Westwood, Donovan's Ins., China, new edition, p. 64, pl. xxxv, fig. 2, female (1842); Junonia orithya, Walker, Trans. Ent. Soc. Lond., 1895, p. 454, n. 84; Moore, Lep. Ind., vol. iv, p. 71 (1899); Precis orithya, Butler, Ann. and Mag. of Nat. Hist., seventh series, vol. viii, p. 200, n. 12 (1901).

The larva has been recorded in the Himalayas to feed ou Antirrhinum Orontium Linn., Natural Order Scrophularineze; in South India on Hygrophila, Natural Order Acanthaceze; and in Ceylon on acanthads.

#### 37. PRECIS HIERTA, Fabricius.

Papilio hierta, Fabricius, Ent. Syst., Suppl., p. 424, n. 281-2 (1798); Junonia hierta, Moore, Lep. Ind., vol. iv, p. 75 (1899); Papilio œnonc, Cramer (nec Linnæus),

Pap. Ex., vol. i, p. 55, pl. xxxv, figs. A, B, female; C, male (1775); Cynthia wnone, Westwood, Donovan's Ins. China, new edition, p. 66, pl. xxxvi, fig. 1, male (1842); Junonia wnone, Walker, Trans. Ent. Soc. Lond., 1895, p. 454, n. 33; Precis wnone [sic], Butler, Ann. and Mag. of Nat. Hist., seventh series, vol. viii, p. 208, n. 22 (1901).

The larva feeds in South India on Hygrophila, Natural Order Acanthaceæ, also on two plants of which the vernacular names are "Kolay Mooloo" and "Byle Choolee."

#### 38. PRECIS LEMONIAS, Linnæus.

Papilio lemonias, Linnæus, Syst. Nat. Ins., ed. x, vol. i, pt. 2, p. 473, n. 93 (1758); Junonia lemonias, Walker, Trans. Ent. Soc. Lond., 1895, p. 454, n. 32; Moore, Lep. Ind., vol. iv, p. 76 (1899); Papilio aonis, Cramer, Pap. Ex., vol. i, pp. 55, 56, pl. xxxv, figs. D, E, F, male (1775).

In India the larva feeds on Nelsonia, Hygrophila, Strobilanthes and Barleria, all Natural Order Acanthacess.

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#### 39. PRECIS ALMANA, Linnæus.

Papilio almana, Linnzous, Syst. Nat. Ins., ed. x, vol. i, pt. 2, p. 472, n. 89 (1758); Cramer, Pap. Ex., vol. i, p. 90, pl. lviii, figs. F, G, (1775); Cynthia almana, Westwood, Donovan's Ins. China, new edition, p. 67, pl. xxxvi, fig. 2 (1842); Junonia almana, Moore, Lep. Ind., vol. iv, p. 79 (1899); Papilio asterie, Linnzous, Syst. Nat., ed. x, vol. i, p. 472, n. 90 (1758); Cramer, Pap. Ex., vol. i, p. 90, pl. lviii, figs. D, K (1775); Junonia asterie, Walker, Trans. Ent. Soc. Lond., 1895, p. 453, n. 30.

The larva in Java has been found feeding on Justicia, Natural Order Acanthaceze; in South India on Hygrophila, Natural Order Acanthaceze; in Calcutta on Gloxinia or Osbeckia, the latter Natural Order Melastomaceze.

40. VANESSA CANACE, Johanssen.

Papilio canace, Johanssen, Amœn. Acad., vol. vi, p. 406, n. 68 (1764); Linnæus, Syst. Nat. Ins., ed. xii, vol. i, pt. ii, p. 779, n. 173 (1767); Vanessa canace, Walker, Trans. Ent. Soc. Lond., 1895, p. 458, n. 50; Papilio charonia, Drury, Ill. Ex. Ent., vol. i, p. 28, pl. xv, figs. 1, 2, female (1770); Cramer, Pap. Ex., vol. i, pp. 73, 74, pl. xlvii, figs. A, B, C (1775); Herbst, Pap., vol. vii, p. 42, n. i, pl. xlx, figs. 1, 2 (1794); Vanessa charonia, Godart, Enc. Méth., vol. ix, p. 308, n. 27 (1819); Kaniska charonia, Moore, Lep. Ind., vol. iv, p. 94 (1899); Papilio kollina, Meerburgh, Afb. Zeldz. Gew., pl. xliii (1775).

Dr. Moore records this species as Kaniska Charonia, Drury, from Hongkong, but specimens from thence are identical with Indian examples of V. canace, Linnæus. Mr. James J. Walker has bred it in Hongkong on a species of Smilax, Natural Order Liliaces.

#### 41. VANESSA INDICA, Herbst.

Papilio atalanta (part), Herbst, Pap., vol. vii, p. 171, n. 64, Papilio atalanta

indica, pl. clxxx, figs. 1, 2 (1794); Vanessa indica, Walker, Trans. Ent. Soc. Lond., 1895, p. 485, n. 49; Papilio atalanta Cramer (nec Linnzeus), Pap. Ex., vol. i, p. 132, pl. lxxxiv, figs. E, F (1775); Hamadryas decora calliroë Hübner, Sarmul. Ex. Schmett. (1806-16); Pyrameis callirhoë [sic], Moore, Horsfield and Moore, Cat. Lep. Mus. E. I. C., vol. i, p. 138, n. 879 (1857); Vanessa vulcania, Godart, Enc. Méth., vol. ix, p. 320, n. 55 (1819).

The larva of this butterfly in Ceylon feeds on Urtica, and in the Western Himalayas on different nettles of the Natural Order Urticaces.

#### 42. VANESSA CARDUI, Linnæus.

Papilio cardui, Linnæus, Syst. Nat. Ins., ed. x, vol. i, pt. 2, p. 475, n. 107 (1758); Vanessa cardui, Walker, Trans. Ent. Soc. Lond., 1895, p. 457, n. 48; Moore, Lep. Ind., vol. iii, p. 107 (1899).

The larva has been recorded in Ceylon to feed on Artemisia, Natural Order Composits; at Kandahar on different species of thistles; at Jutogh in the Western Himalayas on the common artichoke and on mallow; in the same region on nettles, but this is a doubtful food-plant, on thistles, on Debregeasia, Natural Order Urticaces, and on Carduus, Natural Order Composits; in South India on Zornia, Natural Order Leguminoss, and on Blumea, Natural Order Composits; and at Lucknow on Gnaphalium, Natural Order Composits.

#### 43. SYMBBENTHIA LUCINA, Cramer.

Papilio lucina, Cramer, Pap. Ex., vol. iv, p. 82, pl. cooxxx, figs. E, F, female (1780); Symbrenthia lucina, Moore Lep. Ind., vol. iv, pp. 113, 114 (1906); Symbrenthia hyppoclus lucina, Frahstorfer, Berl. Ent. Zeitsch., vol. xlv, p. 20 (1900); Symbrenthia khasiana, Moore, Proc. Zool. Soc. Lond., 1874, p. 569; Symbrenthia daruka, Moore, Proc. Zool. Soc. Lond., 1874, p. 570, pl. lxvi, fig. 18, male; Symbrenthia hyppoclus [sic], Walker [nec Cramer], Trans. Ent. Soc. Lond., 1895, p. 458, n. 51.

In Sikkim the larva feeds on the stinging nettle Girardinia sp., in the Western Himalayas on nettles, Debregeasia sp., Natural Order Urticaces.

#### 44. HYPOLIMNAS BOLINA, Linnæas.

Papilio bolina, Linnæus, Syst. Nat. Ins., ed. x, vol. i, pt. 2, p. 479, n. 124 (1758); Hypolimnas bolina, Walker, Trans. Ent. Soc. Lond., 1895, p. 455, n. 39; Apatura bolina, Moore, Lep. Ind., vol. iv, pp. 140, 144 (1900); Papilio iacintha, Drury, Ill. Ex. Ins., vol. ii, p. 36, pl. xxi, figs. 1, 2, female, (1773); Nymphalis jacintha, Westwood, Donovan's Ins. China, new edition, p. 68, pl. xxvii, fig. 1, female (1842).

Mr. Gervose F. Mathew has found the larva of *H. holina* feeding on Sida rhombifolia Liun., and Sida retusa Linn., Natural Order Malvaces, also upon a Convolvulus, Natural Order Convolvulaces, in the Australian region; in South India it feeds on Portulaca, Natural Order Portulaces, Fleurya and Elatostema, both Natural Order Urticaces; in

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Central India it has been found on *Rostellulria*, Natural Order Acanthacese.

#### 45\*. HYPOLIMNAS MISIPPUS, Linnæus.

Papilio misippus, Linnæus, Mus. Ulr., p. 264, n. 83 (1764); Hypolimnas misippus, Walker, Trans. Ent. Soc. Lond., 1895, p. 455, n. 40; Apatura misippus, Moore, Lep. Ind., vol. iv, pp. 146, 150 (1900).

Mr. James J. Walker reports having seen a male of this species close to Kowloon in February. I have no other record of its occurrence in the colony. I do not know what form or forms of the female are found in China, three forms, *diocippus*, Cramer, *alcippoides*, Butler, and *inaria*; Cramer, are known from India. In India the larva feeds on *Portulaca*, Natural Order *Portulaces*. In Ceylon it feeds on *Abutilon* and *Abel*moschus, Natural Order *Malvaces*.

#### 46. CETHOSIA BIBLIS, Drury.

Papilio biblis, Drury, Ill. Ex. Ins., vol. i, p. 9, pl. iv, figs. 2, 2a, male (1770); Cramer, Pap. Ex., vol. ii, p. 120, pl. clxxv, figs. A, B, male (1777); Cethosia biblis, Walker, Trans. Ent. Soc. Lond., 1895, p. 451, n. 26; Moore, Lep. Ind., vol. iv, pp. 185, 186 (1900).

The larva in Hongkong feeds on *Passiflora fætida*, Linn., Natural Order *Passifloreæ*. In India it feeds also on passion-flowers.

#### 47. ATELLA PHALANTHA, Drury.

Papilio phalantha, Drury, Ill. Ex. Ins., vol. i, p. 41, pl. xxi, figs. 1, 2 (1770); Atella phalantha, Moore, Lep. Ind., vol. iv, p. 198 (1900); Atella phalanta [sic], Walker, Trans. Ent. Soc. Lond., 1895, p. 451, n. 25; Papilio columbina, Gramer, Pap. Ex., vol. iii, p. 76, pl. coxxxviii, figs. A, B (1779); vol. iv, p. 92, pl. cocxxxvii, figs. D, E (1781).

In Java the larva feeds on *Ixora*, Natural Order *Rubiacess*; in Ceylon and on *Flacourtia*, Natural Order *Bixiness*; on *Salix*, Natural Order *Salicinese*, in India and the Isle of Réunion off the coast of Africa on the former genus of plants.

#### 48. CUPHA ERYMANTHIS, Drury.

Papilio erymanthis, Drury, Ill. Ex. Ins., vol. 1, p. 29, pl. xv, figs. 3, 4 (1770); Cramer, Pap. Ex., vol. iii, p. 77, coxxxviii, figs. F, G (1779); Argynnis erymanthis, Westwood, Donovan's Ins. China, new edition, p. 64, pl. xxxv, fig. 1 (1842); Cupha erymanthis, Walker, Trans. Ent. Soc. Lond., 1895, p. 451, n. 24; Fruhstorfer, Berl. Ent. Zeitsch., vol. xlii, p. 325 (1897); Stet. Ent. Zeit., vol. 1x, p. 344 (1899); Moore, Lep. Ind., vol. iv, pp. 205, 206 (1900).

Mr. James J. Walker has bred the larva in Hongkong on Glochidion eriocarpum, Champ., Natural Order Euphorbiacess; in South India

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the larva has been found on a species of willow, and on Flacourtia, Natural Order Bixinez.

#### 49. CIRBHOCHEOA MITHILA, MOORO.

Cirrochroa mithila, Moore, Proc. Zool. Soc. Lond., 1872, p. 558; Cirrhochroa mithila, Walker, Trans. Ent. Soc. Lond., 1895, p. 455, n. 38; Cirrochroa rotundata, Butler, Trans. Linn. Soc. Lond., Zoology, second series, vol. i, p. 543, n. 4 (1877).

This butterfly has never been bred.

#### 50\*. CIRBHOCHROA SATELLITA, Butler.

Cirrhochroa satellita, Butler, Cist. Ent., vol. i, p. 9 (1869); Walker, Trans. Ent. Soc. Lond., 1895, p. 455, n. 37; Cirrochroa satellita [sic], Moore, Lep. Ind., vol. iv, p. 223 (1900).

The transformations of this butterfly are unknown.

#### 51\*. ARGYNNIS CHILDRENI, Gray.

Argynnis childreni, Gray, Zool. Misc., vol. i, p. 33 (1831); Walker, Trans. Ent. Soc. Lond., 1895, p. 456, n. 42; Dryas childreni, Moore, Lep. Ind., vol. iv, p. 229 (1900).

This fine butterfly has never been bred.

#### 52. ARGYNNIS HYPERBIUS, Linnæus.

Papilio hyperbius, Linnæus, Cent. Ins., p. 25 (1763); Papilio niphe, Linnæus Syst. Nat. Ins., ed. xii, vol. i, pt. 2, p. 785, n. 208 (1767); Drury, Ill. Ex. Ins., vol. i, p. 12, pl. vi, figs. 1, 1a, female (1770); Cramer, Pap. Ex., vol. i, p. 21, pl. xiv., figs. D, E, male; B, C, female (1775); Argynnis niphe, Walker, Trans. Ent. Soc. Lond., 1895, p. 455, n. 41; Acidalia hyperbius, Moore, Lep. Ind., vol. iv, pp. 234, 235 (1900); Papilio argynnis, Drury, Ill. Ex. Ins., vol. i, p. 13, pl. vi, figs. 2, 2a, male (1770).

The larva of this interesting butterfly feeds on violets and pansies, Viola, Natural Order Violaces.

#### 53. ERGOLIS ARIADNE, Johanssen.

Papilio ariadne, Johanssen, Amœn. Acad., vol. vi, p. 407 (1764); Ergolis ariadne, Walker, Trans. Ent. Soc. Lond., 1895, p. 451, n. 23; Moore, Lep. Ind., vol. v, pp. 18, 19 (1901).

The larva in India feeds on Tragia, Natural Order Euphorbiaces.

#### Family RIODINIDÆ.

#### Subfamily NEMEOBIINE.

#### 54. ZEMEROS FLEGYAS, Cramer.

Papilio flegyas, Cramer, Pap. Ex., vol. iii, p. 158, pl. colxxx, figs. E, F, male

(1780); Zemeros flegyas, Walker, Trans. Ent. Soc. Lond., 1895, p. 459, n. 54; Papilie allica, Fabricius, Mant. Ins., vol. ii, p. 52, n. 510 (1787); Zemeros phlegyas indicus, Fruhstorfer, Berl. Ent. Zeitsch., vol. xlii, p. 333 (1897); Zemeros confucius, Kirby (nec. Moore), The Entomologist, vol. xxxii, p. 31 (1899).

Papilio flegyas was originally described from China, *i.e.*, Southern China, probably from the Canton region in which Hongkong is situated, as this is the region from which all the old writers received all the species from China which they described. Mr. Fruhstorfer doubts Cramer's locality and records Z. "*phlegyas*" from East and West Java only. He names the North Indian form Z. *phlegyas indicus*, but Indian specimens are identical with those from China. Mr. Kirby records Z. confucius, Moore, from Hongkong, a species originally described from the Island of Hainan off the coast of China. Whether this species is a good one or not I am unable to say, as I possess no butterflies from Hainan. Dr. Holland says that it is a good species. In India the larva feeds on Mæsa, Natural Order Myrsineæ.

#### 55. ABISARA ECHERIUS, Stoll.

Papilio echerius, Stoll, Cramer's Pap. Ex., Suppl., vol. v, p. 140, pl. xxxi, figs. 1, 1A, male; 1B, female (1790); Abisara echerius, Walker, Trans. Ent. Soc. Lond., 1895, p. 459, n. 55; Papilio odin, Fabricius, Ent. Syst., vol. iii, pt. 1, p. 56, n. 175 (1793); Lyczna senodice, Hübner, Verz. bek. Schmett., p. 23, n. 174 (1816).

I have not included in the synonymy given above the Papilio coriolanus of Fabricius, as it was described from "The Indies," and is said to have a common [on both wings] ferruginous band, which does not apply to the present species. Dr. Butler says it is well figured in the unpublished "Icones" of Mr. Jones, a book not available in Calcutta. The larva of the closely-allied A. fraterna, Moore, in Southern India on Embelia and Ardisia, Natural Order Myrsines; in Ceylon A. prunosa, Moore, feeds on Ardisia of the same Natural Order.

#### Family LYCÆNIDÆ.

#### 56. GERYDUS CHINENSIS, Felder.

Miletus chinensis, Felder, Verh. 2001.-bot. Gesellsch. Wien, vol. xii, p. 488, n. 146 (1862); Reise Nov., Lep., vol. ii, p. 284, n. 364, pl. xxxv, figs. 35, 36, female (1865); Gerydus chinensis, Walker, Trans. Ent. Soc. Lond., 1895, p. 460, n. 57.

The transformations of no species of Gerydus is known.

#### 57. NEOPITHECOPS ZALMORA, Butler.

Pithecops zalmora, Butler, Cat. Fab. Lep. B. M., p. 161 (1869); Neopithecops salmora, Walker, Trans. Ent. Soc. Lond., 1895, p. 460, n. 58.

The larva of this little butterfly feeds on *Glycosmis*, Natural Order *Rutacess* in South India.

#### 58. CHILADES LAIUS, Cramer.

Papilio lajus, Cramer, Pap. Ex., vol. iv, p. 62, pl. cccxix, figs. D, E, female (1780); Lycæna laius, Butler, Cat. Fab. Lep. B. M., p. 171, n. 19 (1869); Chilades laius, Walker, Trans. Ent. Soc. Lond., 1895, p. 461, n. 63; Hesperia cajus, Fabricius, Ent. Syst., vol. iii, pt. 1, p. 296, n. 126 (1793); Lycæna cajus, Wallengren, Kongl. Svenska Fregatten Eugenies, Zoologi, pt. 1, p. 356, n. 12 (1861); Plebeius leucofasciatus, Röber, Iris, vol. i, p. 59, pl. iv, fig. 32, male, wet-season form (1886).

In India the larva feeds on Citrus, Natural Order Rutacese.

#### 59. ZIZERA MAHA, Kollar.

Lyczna maha, Kollar, Hügel's Kaschmir, vol. iv, pt. 2, p. 422, n. 9 (1844); Zizera maha, Walker, Trans. Ent. Soc. Lond., 1895, p. 460, n. 60; Lyczna bohemanni, Wallengren, Wien, Ent. Monatsb., vol. iv, p. 37, n. 16 (1860); Kong. Svenska Fregatten Eugenies, Zoologi, pt. 1, p. 355, n. 11 (1861); Lyczna argia, Elwes, Proc. Zool. Soc. Lond., p. 888, 1881); Plebeius alboczruleus, Röber, Iris, vol. i, p. 59, pl. iv, fig. 7, male (1886).

Dr. A. G. Butler in Proc. Zool. Soc. Lond., 1900, p. 107, n. 3, pl. xi, figs. 5, 6, male, gives Lyczna opalina, Poujade, with L. marginata. Poujade, and Plebeius albocæruleus [sic], Röber, from Burma, Tibet and China as distinct from Lyczena maha, Kollar, with Polyammatus chandala. Moore, and Zizera ossa, Swinhoe, from Western India, occurring in the Lower Himalayas to Madras [? Bombay]; he also keeps distinct the Lyczena diluta of Felder, with Lyczena squalida, Butler, from the Eastern Himalayas southwards to Ganjam in the Madras Presidency. The latter species was originally described from Cachar, so the province of Assam must be added to the region of Zizera diluta. I am unable to follow Dr. Butler in his division of the wide-ranging Z. maha into three geographical races. No hard and fast geographical line can be drawn between them, Z. maha occurring from Kashmir at least (and probably still further to the west) on the west to Hongkong on the east. In Calcutta the larva feeds on Oxalis, Natural Order Geraniacese.

#### 60. ZIZERA OTIS, Fabricius.

Papilio otis, Fabricius, Mant. Ins., vol. ii, p. 73, n. 689 (1787); Lycæna serica, Felder, Verh. zool.-bot. Gesellsch. Wien, vol. xii, p. 487, n. 145 (1862); Polyammatus sangra, Moore, Proc. Zool. Soc. Lond., 1865, p. 772, pl. xli, fig. 8, male; Zizera sangra, Walker, Trans. Ent. Soc. Lond., 1895, p. 460, n. 59.

Dr. A. G. Butler in Proc. Zool. Soc. Lond., 1900, p. 111, retains Lyczena indica, Murray, described from Allahabad in the North-Western Provinces, but which Dr. Batler restricts to Central and South India and Ceylon, as distinct from *Papilio otis*. I have nothing to add to my note in Journ. A. S. B., vol. xlvi, pt. 2, p. 611 (1897) with regard to these two supposed distinct species. In Calcutta the larva feeds on *Alysicarpus*, Natural Order *Leguminosæ*; in South India on Zornia, Natural Order *Leguminosæ*.

#### 61. EVERES ABGIADES, Pallas.

Papilio argiades, Pallas, Reise, vol. i, app., p. 472, n. 65 (1771); Lyczna argiade Walker, Trans. Ent. Soo. Lond., 1895, p. 461, n. 61.

The larva in South India feeds on Cylista, Natural Order Leguminosse.

62. NACADUBA ATRATA, Horsfield.

Lycæna atratus, Horsfield, Cat. Lep. E. I. Co., p. 78, n. 13 (1828).

In Ceylon the larva feeds on Vateria, Natural Order Dipterocarpez; in South India on Wagatea, Natural Order Leguminosz; and on Embelia and ardisia, both Natural Order Myrsinez.

#### 63. JAMIDES SIRAHA, Kheil.

Plebeius siraha, Kheil, Rhop. Nias., p. 30, n. 91, pl. v, fig. 35, male (1884); J. bachus, var., Distant, Rhop. Malay., p. 222, n. 1, pl. xxi, figs. 19, male; 16, female (1884).

The larva of this butterfly has never been found, but the allied J. bachus, Cramer, in South India feeds on Butea, Pongamia and Xylia, all of the Natural Order Leguminosz.

#### 64\*. LAMPIDES CELENO, Cramer.

Papilio csleno, Cramer, Pap. Ex., vol. i, p. 51, pl. xxxi, figs. C, D, male (1775); Hesperia ælianus, Fabricius, Ent. Syst., vol. iii, pt. 1, p. 280, n. 79 (1793); Lampides ælianus [sic], Walker, Trans. Ent. Soc. Lond., 1895, p. 461, n. 64.

In Java the larva feeds on Butea, Natural Order Leguminosse; in Calcutta on Heynea, Natural Order Meliacese; and on Pongamia, Natural Order Leguminosse; in South India on Abrus, Pongamia and Saraca, all Natural Order Leguminosse.

#### 65. CATOCHEYSOPS STRABO, Fabricius.

Hesperia strabo, Fabricius, Ent. Syst., vol. iii, pt. 1, p. 287, n. 101 (1793); Catachrysops [sic] strabo, Walker, Trans. Ent. Soc. Lond., 1895, p. 462, n. 65.

The larva in Orissa feeds on *Dolichos*, Natural Order *Leguminosæ*; and in South India on *Schleichera*, Natural Order *Sapindaceæ*, and on *Ougeinia* and *Cylista*, Natural Order *Leguminosæ*.

### 66. CATOCHETSOPS CNEJUS, Fabricius.

Hesperia cnejus, Fabricius, Ent. Syst., Suppl., p. 430, n. 100-101 (1798).

Dr. A. G. Butler in "The Entomologist," vol. xxxiii, p. 1 (1900), places *cnejus* in *Enchrysops*, which has the eyes smooth, and *strabo* in *Catochrysops*, as it has the eyes hairy. The larva in Calcutta feeds on *Phaseolus*, in Orissa on *Dolichos*, and in South India on *Ougeinia* and *Cylista*—all Natural Order *Leguminosæ*.

### 67. POLYOMMATUS BETICUS, Linnæus.

Papilio bæticus, Linnæus, Syst. Nat. Ins., ed. xii, vol. i, pt. 2, p. 789, n. 226 (1767); Lycæna bætica, Walker, Trans. Ent. Soc. Lond., 1895, p. 461, n. 62.

The larva in Calcutta feeds on *Crotalaria*; in South India on *Butea* and *Cajanus*; in Europe on *Colutea*; and in South Africa on *Crotalaria*; and in the Hawaiian Islands on *Melilotus*—all Natural Order Leguminosæ.

#### 68. IRAOTA TIMOLEON, Stoll.

Papilio timoleon, Stoll, Suppl. Cramer, Pap. Ex., vol. v, p. 146, pl. xxxii, figs. 4, 4D, female (1790); Deudoris (Iraota) timoleon, Walker, Trans. Ent. Soc. Lond., 1895, p. 463, n. 72; Hesperia mæcenas, Fabricius, Ent. Syst., vol. iii, pt. 1, p. 271, n. 45 (1793); Theela mæcenas, Westwood, Donovan's Ins. China, new edition, p. 70, pl. xxxix, fig. 2, male (1842); Deudoris (Iraota) mæcenas, Walker, Trans. Ent. Soc. Lond., 1895, p. 463, n. 73.

The larva in South India feeds on three species of *Ficus*, Natural Order Urticacese; in Ceylon it feeds on the same plants.

# 69. CURETIS ACUTA, Moore.

Curetis acuta, Moore, Ann. and Mag. of Nat. Hist., fourth series, vol. xx, p. 50 (1877); Walker, Trans. Ent. Soc. Lond., 1895, p. 459, n. 56.

The larva of this butterfly has never been found, but closely-allied species in Calcutta feed on Heynea, Natural Order Meliacez, on Pongamia and Derris, Natural Order Leguminosz; and in South India on Abrus, Pongamia, Derris, Wagatea and Xylia—all Natural Order Leguminosz.

70. ILERDA PHENICOPARYPHUS, Holland.

Ilerda phænicoparyphus, Holland, Trans. Amer. Ent. Soc., vol. xiv, p. 120, n. 52, pl. ii, fig. 1, male (1877).

This butterfly has never been bred.

# 71. CAMENA DEVA, MOORE.

Amblypodia deva, Moore, Horsfield and Moore, Cat. Lep. Mus. E. I. C., vol. i, p. 46, n. 74 (1857).

The larva in India feeds on Loranthus Natural Order Loranthacess.

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24 L. de Nicéville-Butterflies of Hongkong in Southern China. [No. 1,

#### 72. APHNEUS LOHITA, Horsfield.

Amblypodia lohita, Horsfield, Cat. Lep. E. I. Co., p. 106, n. 38 (1829); Aphnæus sebrinus, Walker, Trans. Ent. Soc. Lond., 1895, p. 462, n. 66.

In South India the larva feeds on Zizyphus, Natural Order Rhamness, Wagatea and Xylia, Natural Order Leguminosse, Terminalia, Natural Order Combretacese, Psidium, Natural Order Myrtacese, Lagerstræmia, Natural Order Lythracese, Argyreia, Natural Order Convolvulacese and Dioscorea, Natural Order Dioscoreacese; and in Ceylon in plants of the Natural Order Convolvulacese.

### 73\*. TAJURIA CIPPUS, Fabricius.

Hesperia cippus, Fabricius, Ent. Syst., Suppl., vol. v, p. 429, n. 43-44 (1798); Tajuris longinus, Walker, Trans. Ent. Soc. Lond., 1895, p. 462, n. 67.

In Java and South India the larva of this butterfly feeds on Loranthus, Natural Order Loranthaces.

### 74. TAJURIA JANGALA, Horsfield.

Amblypodia jangala, Horsfield, Cat. Lep. E. I. Co., p. 113, n. 4 (1899); Sithon jangala, Walker, Trans. Ent. Soc. Lond., 1895, p. 462, n. 68.

This species has never been bred.

#### 75. LEHERA ERYX, Linnæus.

Papilio erys, Linnæus, Mant. Plant., p. 537 (1771); Deudoriz (Lehera) eryz, Walker, Trans. Ent. Soc. Lond., 1895, p. 462, n. 69.

In British Bhutan in North-Eastern India the larva of this butterfly has been found feeding on the fruit of the wild pomegranate (? *Randia*) Natural Order *Rubiacese*).

#### 76. DEUDORIX EPIJARBAS, MOORE.

Dipsas epijarbas, Moore, Horsfield and Moore, Cat. Lep. Mus. E. I. Co., vol. i, p. 32, n. 40 (1857); Walker, Trans. Ent. Soc. Lond., 1895, p. 463, n. 71.

The larva in the Western Himalayas feeds on the fruit of the pomegranate, Punica Granatum, Linn., Natural Order Lythracese, and on the fruit of the horse-chestnut, Æsculus indica, Colehr., Natural Order Sapindacese; in South India on the pods of Connarus Ritchiei, Hook. f., Natural Order Connaracese.

# 77. RAPALA SCHISTACEA, MOORO.

Deudoris schistacea, Moore, Proc. Zool. Soc. Lond., 1879, p. 140.

In Calcutta the larva feeds on Antidesma, Natural Order Euphor-

biacess; in the Western Himalayas on Spirsea, Natural Order Rosacess; in South India on Acacia, Natural Order Leguminosse and Quisqualis, Natural Order Combretacess.

# 78\*. RAPALA VARUNA, Horsfield.

Theela varuna, Horsfield, Cat. Lep. Mus. E. I. Co., p. 91, n. 24 (1829); Deudoris orseis, Hewitson, Ill. Dinrn. Lep., p. 23, n. 20 (1863); Deudoris (Bapala) orseis, Walker, Trans. Ent. Soc. Lond., 1895, p. 463, n. 70.

The larva in South India feeds on Zizyphus, Natural Order Bhamneze, Xylia, Natural Order Leguminosz and Quisqualis, Natural Order Combretaceze.

### Family PAPILIONIDÆ.

#### Subfamily PIERINE.

### 79. DELIAS HIERTE, Hübner.

Delias hierts, Hübner, Zutr. Ex. Schmett., figs. 77, 78, male (1818); Mitis, Iris, vol. vi, p. 107, n. 38 (1893); Walker, Trans. Ent. Soc. Lond., 1895, p. 464, n. 75.

This species has never been bred, but the larva will almost certainly be found on *Loranthus*, Natural Order *Loranthacese*.

# 80. DELIAS AGLAIA, Linnæus.

Papilio aglaia, Linnæus, Syst. Nat. Ins., ed. x, vol. i, pt. 2, p. 465, n. 44 (1758); Delias aglaia, Butler, Ann. and Mag. of Nat. Hist., sixth series, vol. xx, p. 162, n. 78 (1897); Papilio pasithoë, Linnæus, Syst. Nat. Ins., ed. xii, vol. i, pt. 2, p. 755, n. 53 (1767); Pieris pasithoë, Westwood, Donovan's Ins. China, new edition. p. 59, pl. xxx, figs. 2, 2a, male (1842); Delias pasithoë, Walker, Trans. Ent. Soc. Lond., 1895, p. 463, n. 74; Papilio dione, Drury, Ill. Ex. Ius., vol. ii, pl. viii, figs. 3, 4, male (1773); Papilio porsenna, Cramer, Pap. Ex., vol. i, p. 68, pl. xliii, figs. D, E, male (1775).

Larva probably feeds on Loranthus.

# 81. CATOPSILIA CROCALE, Cramer.

Papilio crocale, Cramer, Pap. Ex., vol. i, p. 87, pl. lv, figs. C, D, female (1775); Catopsilia crocale, Leech. Butt. from China, Japan, and Corea, p. 424 (1893); Walker, Trans. Ent. Soc. Lond., 1895, p. 464, n. 79; Papilio catilla, Cramer, Pap. Ex., vol. iii, p. 63, pl. coxxix, figs. D, E, female (1779); Catopsilia catilla, Walker, Trans. Ent. Soc. Lond., 1895, p. 464, n. 78.\*

The larva in India feeds on various species of *Cami*, Natural Order *Leguminosæ*.

\* Mr. James J. Walker keeps these two species distinct, and has reversed the references to them; moreover one of his dates is incorrect.

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### 82. CATOPSILIA PYRANTHE, Lindsous.

Papilio pyranthe, Linnæus, Syst. Nat. Ins., ed. x, vol. i, pt. 2, p. 469, n. 66 (1758); Colias phyranthe, Westwood, Donovan's Ins., China, new edition, p. 61, pl. xxxi, fig. 1, male (1842); Papilio chryseis, Drury, Ill. Ex. Ent., vol. i, p. 24, pl. xii, figs. 3, 4, male (1773); Catopsilia chryseis, Walker, Trans. Ent. Soc. Lond., 1895, p. 464, n. 77.

The larva of this butterfly in India feeds on Cassia, Natural Order Leguminoss.

#### 83\*. TERIAS LIBYTHEA, Fabricius.

Papillo libythea, Fabricius, Ent. Syst., Suppl., vol. v, p. 427, n. 598, 599 (1798); Terias libythea, Butler, Ann. and Mag. of Nat. Hist., seventh series, vol. i, p. 58, n. 3 (1898); Terias brigitta, Walker (nee Cramer), Trans. Ent. Soc. Lond., 1895, p. 465, n. 83.

In South India the larva of this butterfly feeds on Cassia, Natural Order Leguminosse.

### 84\*. TERIAS SUBFERVENS, Butler.

Terias subfervens, Butler, Ann. and Mag. of Nat. Hist., fifth series, vol. xi, p. 278 (1883); seventh series, vol. i, p. 65, n. 24 (1898); Terias Leta, Walker (nec Boisduval), Trans. Ent. Soc. Lond., 1895, p. 465, n. 82.

This species has been bred in Japan on Cassia. Natural Order Leguminoss.

#### 85. TERIAS HECABE, Linnæus.

Papilio hecabe, Linnzeus, Syst. Nat. Ins., ed. x, vol. i, pt. 2, p. 470, n. 74 (1758); Terias hecabe, Walker, Trans. Ent. Soc. Lond., 1895, p. 464, n. 80; Butler, Ann. and Mag. of Nat., Hist., seventh series, vol. i, p. 69, n. 36 (1898); Terias anemone, Felder, Wien. Ent. Monateb., vol. vi, p. 23, n. 7 (1862); Butler, Ann. and Mag. of Nat. Hist., seventh series, vol. i, p. 69, n. 36 (1898); Terias mandarina, de l'Orza, Cat. Lép. Jap., p. 18, n. 23 (1869); Walker, Trans. Ent. Soc. Lond., 1895, p. 465, n. 81.

Dr. A. G. Butler in his latest revision of the genus records both T. anemone, Felder, and T. hecabe, Linnzeus, from Hongkong. Had he seen these common insects in life and noted the marvellous seasonal changes which takes place in them I do not think he would have wasted time in trying to make two distinct species out of them, each with wet-season, intergrade or intermediate, and dry-season forms. The larva in India has been recorded to feed on a great variety of plants of the Natural Order Leguminosze, such as Sesbania, Æschynomene, Cassia and Albizzia.

# 86. DERCAS VERHUELLI, van der Hoeven.

Colias verhuelli, van der Hoeven, Tijdsch. voor Nat. Gesch. en Phys., vol. v,

p. 341, n. 3, pl. vii, figs. 3a, 8b, female (1839); Dercas verhuelli, de Nicéville, Ann. and Mag. of Nat. Hist., seventh series, vol. ii, p. 480, n. 1 (1898).

The larva and pupa of this species are unknown.

#### 87. DEBCAS SKERTCHLYI, de Nicéville.

Dercas skertchlyi, de Nicéville, Ann. and Mag. of Nat. Hist., seventh series, vol. ii, p. 481, n. 2 (1898).

The transformations of this genus are quite unknown.

# 88. IXIAS PYRENE, Linnæus.

Papilio pyrene, Linnzeus, Mus. Ulr., p. 241, n. 60 (1764); Isias pyrene, Walker, Trans. Ent. Soc. London, 1895, p. 467, n. 89; Pieris (Thestias) pyrene, Westwood, Donovan's Ins., China, new edition, p. 61, pl. xxxi, fig. 2, male (1842); Papilio enippe, Drury, Ill. Ex. Ins., vol. i, p. 11, and Index (two places), pl. v, figs. 2, 2a, male (1770); Izias evippe (sic !), Butler, Ann. and Mag. of Nat. Hist., seventh series, vol. i, p. 136, n. 11 (1898); Papilio znippe (znippa in one place in text), Oramer, Pap. Ex., vol. ii, p. 13, pl. ov, figs. C, D, female (1777); vol. iii, p. 63, pl. coxxix, figs. B, O, female (1779).

The larva in India feeds on Capparis, Natural Order Capparidese.

#### 89. HEBOMOIA GLAUCIPPE, Linnæus.

Papilio glaucippe, Linnæus, Syst. Nat. Ins., ed. x, vol. i, pt. 2, p. 469, n. 65 (1758); Drury, Ill. Ex. Ins., vol. i, p. 20, pl. x, figs. 3, 4, male (1773); Hebomois glaucippe, Walker, Trans. Ent. Soc. Lond., 1895, p. 467, n. 90; Fritze, Zool. Jahr., vol. xi, p. 259 (1898); Fruhstorfer, Berl. Ent. Zeitsch., vol. xliii, p. 174 (1898); Butler, Ann. and Mag. of Nat. Hist., seventh series, vol. i, p. 290, n. 1 (1898); Pieris (Iphias) glaucippe, Westwood, Donovan's Ins., China, new edition, p. 60, pl. xxxi, fig. 1, male (1842):

The larva of the allied *H. australis*, Butler, in South India feeds on *Cratzeva* and *Capparis*, both of the Natural Order *Capparideze*.

#### 90\*. PRIONERIS CLEMANTHE, Doubleday.

Pieris clemanthe, Doubleday, Ann. and Mag. of Nat. Hist., first series, vol. xvii, p. 23 (1846); Prioneris clemanthe, Walker, Trans. Ent. Soc. Lond., 1895, p. 464, n. 76.

The larve of allied species of this genus in India feed on Capparis. Natural Order Capparides.

### 91\*. APPIAS ALBINA, Boisduval.

Pieris albina, Boisduval, Sp. Gen., vol. i, p. 480, n. 62 (1836); Tachyris (appias) albina, Walker, Trans. Ent. Soc. Lond., 1895, p. 467, n. 88.

The larva in South India feeds on *Hemicyclia*. Natural Order *Euphorbiacese*.

### 92. HUPHINA NEBISSA, Fabricins.

Pupilio nerissa, Fabricius, Syst. Ent., p. 471, n. 123 (1775); Pieris (Huphina) nerissa, Wulker, Trans. Ent. Soc. Lond., 1895, p. 466, n. 85; Huphina nerissa, Butler, Ann. and Mag. of Nat. Hist., seventh series, vol. iii, p. 212, n. 53 (1899); Papilio amasone, Cramer, Pap. Ex., vol. 1, p. 68, pl. xliv, fig. A, male (1775); Papilio coronis, Cramer, Pap. Ex., vol. 1, p. 69, pl. xliv, figs. B, C, female (1775); Huphina pallida, Swinhoe, Proc. Zool. Soc. Lond., 1885, p. 137, n. 103; Pieris (Huphina) pallida, Walker, Trans. Ent. Soc. Lond., 1895, p. 466, n. 86.

The larva in India feeds on Capparis, Natural Order Capparides.

# 93\*. HUPHINA ASPASIA, Stoll.

Papilio aspasia, Stoll, Suppl. Cramer, Pap. Ex., p. 148, pl. xxxiii, figs. 3, 3c, male (1790); Pieris (Hupina) aspasia, Walker, Trans. Ent. Soc. Lond., 1895, p. 466, n. 87; Huphina olga, Butler, Ann. and Mag. of Nat. Hist., seventh series, vol. iii, p. 210, n. 43 (1899).

Mr. James J. Walker records a single specimen from Hongkong in the collection of the British Museum. True *H. aspasia*, Stoll, appears to be confined to the Moluccas, but the variety or local race, *Pontia olga*, Eschecholtz, is extremely common in the Philippines, and a specimen may easily have been blown over to Hongkong from thence in a typhoon. It has apparently not been bred, but like all *Huphinas* the larva probably feeds on capers, Natural Order *Capparidese*.

#### 94. PIERIS CANIDIA, Sparrman.

Papilio canidia, Sparrman, Amœn. Acad., vol. vii, p. 504, note m (1768); Pieris canidia, Leech, Butt. from China, Japan, and Corea, p. 456 (1893); Pieris (Ganoris) canidia, Walker, Trans. Ent. Soc. Lond, 1895, p. 465, n. 84.

The larva of this butterfly, which is by far the commonest species in Hongkong, feeds on various species of *Brassica*, Natural Order *Cruciferm*.

#### Subfamily PAPILIONINÆ.

#### 95. PAPILIO ARISTOLOCHIE, Fabricius.

Papilio aristolochiz, Fabricius, Syst. Ent., p. 443, n. 8 (1775); Rothschild, Nov. Zool., vol. ii, p. 245, n. 39 (1895); Walker, Trans. Ent. Soc. Lond., 1895, p. 468, n. 91.

The larva in India feeds on Aristolochia, Natural Order Aristolochiaces.

### 96\*. PAPILIO XUTHUS, Linnæus.

Papilio suthus, Linnæus, Syst. Nat. Ins, ed. xii, vol. i, pt. 2, p. 751, n. 34 (1767); Walker, Trans. Ent. Soc. Lond., 1895, p. 472, n. 104; Rothschild, Nov. Zool., vol. ii, p. 503 (1895); Papilio santhus, Rothschild, Nov. Zool., vol. ii, p. 278, n. 66 (1895). In China and Japan the larva of this butterfly has been recorded to feed on Zanthoxylum and Ægle, Natural Order Rutacese, and on Phellodendron.

#### 97. PAPILIO DEMOLEUS, Linnseus.

Papilio demoleus, Linnæus, Syst. Nat. Ins., ed. x, vol. i, pt. 2, p. 464, n. 35 (1758); Westwood, Donovan's Ins., China, new edition, p. 57, pl. xxviii, fig. 2, female (1842); Rothschild, Nov. Zool., vol. ii, p. 279, n. 67 (1895); Papilio erithonius Cramer, Pap. Ex., vol. iii, p. 67, pl. ccxxxii, figs. A, B, male (1782); Walker, Trans. Ent. Soc. Lond., 1895, p. 470, n. 98; Papilio epius, Westwood, Donovan's Ins., China, new edition, p. 56, pl. xxviii, fig. 1, male (1842).

The larva in India feeds on Ruta, Glycosmis, Murraya, Citrus and Ægle, all Natural Order Rutaces, Psoralea, Natural Order Leguminoss, while the local race P. demoleus sthenelus, MacLeay, is said to feed on Salvia, Natural Order Labiats, New Guinea.

### 98. PAPILIO HELENUS, Linnæus.

Papilio helenus, Linnæus, Syst. Nat. Ins., ed. x, vol. i, pt. 2, p. 459, n. 4 (1758); Elwes, Proc. Zool. Soc. Lond., 1881, p. 873; Rothschild, Nov. Zool., vol. ii, p. 284, n. 72 (1895); Walker, Trans. Ent. Soc. Lond., 1895, pl. 469, n. 96.

The larva in India feeds on Zanthoxylum, Glycasmis and Citrus, Natural Order Rutacess.

#### 99. PAPILIO MEMNON AGENOR, Linnæus.

Papilio agenor, Linnæns, Syst. Nat. Ins., ed. x, vol. i, pt. 2, p. 460, n. 13 (1758); Westwood, Donovan's Ins., China, new edition, p. 53, pl. xxiv, fig. 2, female, second form (1842); Walker, Trans. Ent. Soc. Lond., 1895, n. 469, n. 94; Papilio memnon agenor, Bothschild, Nov. Zool., vol. ii, p. 316 (d) (1895); Papilio memnon, Leech, Butt. from China, Japan and Corea, p. 544 (1893).

The larva of this butterfly does not appear to have been found in India, but it almost certainly feeds on plants of the arangeaceous group, Natural Order *Rutacess*. True *P. memnon*, Linnseus, in Sumatra feeds on *Citrus*.

## 100. PAPILIO PROTENOR, Cramer.

Papilio protenor, Cramer, Pap. Ex., vol. i, p. 77, pl. xlix, figs. A, B, male (1775); Westwood, Donovan's Ins., China, new edition, p. 56, pl. xxvii, female (1842); Elwes, Proc. Zool. Soc. Lond., 1881, p. 872, Leech, Butt. from China, Japan and Corea, p. 546 (1893); Rothschild, Nov. Zool., vol. ii, p. 331, n. 108 (1895); Walker, Trans. Ent. Soc. Lond., 1895, p. 469, n. 95.

The larva of this butterfly in the Western Himalayas feeds on Zanthoxylum, Natural Order Rutaceæ.

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#### 101. PAPILIO POLYTES BOREALIS, Felder.

Papilio polytes, var. borealis, Felder, Wien. Ent. Monatsb., vol. vi, p. 22, n. 2 (1861); P. polytes borealis, Rothschild, Nov. Zool., vol. ii, p. 348 (b) (1895); Papilio polytes, Walker, Trans. Ent. Soc. Lond., 1895, p. 469, n. 97.

Mr. James J. Walker records the larva of this species in Hongkong feeding on orange, lime, and pumilo (*Oitrus*, Natural Order *Rutaces*).

#### 102. PAPILIO CLYTIA PANOPE, Linnseus.

Papilio panope, Linnæus, Syst. Nat. Ins., ed. x, vol. i, pt. 2, p. 479, n. 131 (1758); Papilio saturata, Moore, Proc. Zool. Soc. Lond., 1878, p. 697; Papilio clytia panope, Linnæus,  $(g^2)$ : ab. loe. saturatus, Rothschild, Nov. Zool., vol. ii, p. 369 (1895); Papilio clytia, Walker, Trans. Ent. Soc. Lond., 1895, p. 470, n. 99.

In Hongkong the larva has been found on Morinda umbellata, Natural Order Rubiaces; in South India a local race of this species feeds in the larval state on Cinnamomum, Alseodaphne and Litssea, Natural Order Laurines; in the Western Himalayas on Litssea; in Calcutta on Antiaris, Natural Order Urticaces; and in Bombay on Tetranthera, Natural Order Laurines; the latter genus being apparently a synonym of Litssea.

### 103. PAPILIO BIANOR, Cramer.

Papilio bianor, Cramer, Pap. Ex., vol. ii, p. 10, pl. ciii, fig. c (1777); Rothschild, Nov. Zool., vol. ii, p. 378, n. 142 (1895); Walker, Trans. Ent. Soc. Lond., 1895, p. 468, n. 93.

The food-plant of the larva of this butterfly does not appear to have been recorded.

### 104. PAPILIO PARIS, Linnæus.

Papilio paris, Linnæus Syst. Nat. Ins., ed. x, vol. i, pt. 2, p. 459, n. 8 (1758); Westwood, Donovan's Ins., China, new edition, p. 51, pl. xxii, figs. 1, 2, female (1842); Walker, Trans. Ent. Soc. Lond., 1895, p. 468, n. 92.

The food-plant of the larva of this common butterfly is apparently unknown.

# 105. PAPILIO ANTIPHATES, Cramer.

Papilio antiphates, Cramer, Pap. Ex., vol. i, p. 113, pl. lxxii, figs. A, B, male (1775); Rothschild, Nov. Zool., vol. ii, p. 410, n. 170 (1895); Walker, Trans. Ent. Soc. Lond., 1895, p. 471, n. 100.

I cannot find that the food-plant of this species has been recorded, though Mynheer Piepers has described the transformations of the local race Alcibiades, Fabricius, in Java. 1902.] L. de Nicéville-Butterflies of Hongkong in Southern China. 31

# 106. PAPILIO EURYPYLUS AXION, Felder.

Papilio asion, Felder, Verh. zool.-bot. Gesellsch. Wien, vol. xiv, p. 305, n. 224, p. 350, n. 128 (1864); Papilio eurypylus asion, Bothschild, Nov. Zool., vol. ii, p. 438 (h) (1895); Papilio eurypilus [sic !], Walker, Trans. Ent. Soc. Lond., 1895, p. 471, n. 102.

The larva at Balasore near Calcutta has been recorded to feed on Michelia, Natural Order Magnoliacess, and Uvaria, Natural Order Anonacess. In Calcutta I have bred it on Michelia, Natural Order Magnoliacess, and on Polyalthia, Natural Order Magnoliacess; while the local race yasan, Esper, feeds on Unona and Saccopetalum, Natural Order anonacess in Southern India.

# 107. PAPILIO SARPEDON SEMIFASCIATUS, Honrath.

Papilio sarpedon, var. semifasciatus, Honrath, Ent. Nach., vol. xiv, p. 161 (1888); Papilio sarpedon semifasciatus, Rothschild, Nov. Zool., vol. ii, p. 443 (b) (1895); Papilio sarpedon, Walker, Trans. Ent. Soc. Lond., 1895, p. 471, n. 101.

The larva of different local races of P. sarpedon feed in Japan on *Machilus*, Natural Order *Laurineæ*; in the Western Himalayas on the same plant; and in South India on *Cinnamomum*, Alseodaphne and *Litsæa*, all of the same Natural Order.

# 108. PAPILIO AGAMEMNON, Linnæus.

Papilio agamemnon, Linnæus, Syst. Nat. Ins., ed. x, vol. i, pt. 2, p. 462, n. 21 (1758); Westwood, Donovan's Ins., China, new edition, p. 55, pl. xxvi, fig. 2, female (1842); Rothschild, Nov. Zool., vol. ii, p. 447, n. 198 (1895); Walker, Trans. Ent. Soc. Lond., 1895, p. 471, n. 101.

The larva of this butterfly in Java and Celebes has been found on Anona, Natural Order Anonaces; in the Philippine Isles on Arctacarpus, Unona, and Michelia; in Sumatra on Anona and Michelia; and in India on Unona, Polyalthia, Anona, and Saccopetalum—all Natural Order Anonaces.

# 109. LEPTOCIECUS CURIUS, Fabricius.

Papilio curius, Fabricius, Mant. Ins., vol. ii, p. 9, n. 71 (1787); Leptocircus curius, Walker, Trans. Ent. Soc. Lond., 1895, p. 472, n. 105.

In October, 1892, on the Daunat Range, Central Tenasserin, Burma, I observed a female of the allied *Leptocircus mages*, Zinken-Sammer, ovipositing on the underside of the leaves of a creeper with compound leaves, each leaf consisting of three leaflets, the *Illigera burmannica* of King, Natural Order *Combretacese*. The egg is spherical, smooth, pale green, almost transparent, and of the usual papilionid form. Unfortunately I was not able to breed the larva.

# Family HESPERIIDÆ.

### 110. TAGIADES ATTICCS, Fabricius.

Hesperia atticus, Fabricius, Ent. Syst., vol. iii, pt. 1, p. 839, n. 288 (1793); Tagiades atticus, Walker, Trans. Ent. Soc. Lond., 1895, p. 475, n. 119.

In Southern India the larva of this butterfly feeds on *Dioscorea*, Natural Order *Dioscoreaceæ*, and *Smilax*, Natural Order *Liliaceæ*.

111. ODONTOPTILUM ANGULATA, Felder.

Pherygospidea angulata, Felder, Verh. 2001.-bot. Gesellsch. Wien, vol. xii, p. 488, n. 149 (1862); Achlyodes Sura, Moore, Proc. Zool. Soc. Lond., 1865, p. 786; Antigonus sura, Walker, Trans. Ent. Soc. Lond., 1895, p. 475, n. 120.

The larva in South India feeds on Allophylus Cobbe, Blunze, Natural Order Sapindaces.

#### 112. CAPRONA ALIDA, de Nicéville.

Caprona alida, de Nicéville, Journ. Bomb. Nat. Hist. Soc., vol. vi, p. 894, n. 37, pl. G, fig. 40, male (1891).

The transformations of this butterfly are unknown.

#### 113. CAPRONA ELWESII, Watson.

Caprona elwesii, Watson, Journ. Bomb. Nat. Hist. Soc., vol. z, p. 674 (1897); Caprona syrichthus, var., Elwes, Proc. Zool. Soc. Lond., 1892, p. 656, pl. zliii, fig. 2.

The transformations of this butterfly are unknown.

#### 114. ASTICTOPTERUS OLIVASCENS, MOORE.

Astictopterus olivascens, Moore, Proc. Zool. Soo. Lond., 1878, p. 692; Asticopterus [sic!] olivascens, Walker, Trans. Ent. Soo. Lond., 1895, p. 476, n. 124; Cyclopides chinensis, Leech, The Entomologist, vol. xxiii, p. 48 (1890); Steropes nubilus, Mabille, Bull. Soc. Ent. Belg., vol. xxxv, p. lxiv (1891); Leech, Butt. from China Japan and Corea, p. 630 (1893).

This obscure skipper has never been bred.

#### 115. SUASTUS GREMIUS, Fabricius.

Hesperia gremius, Fabricius, Ent. Syst., a Suppl., vol. v, p. 433, n. 282-283 (1798); Suastus gremius, Walker, Trans. Ent. Soc. Lond., 1895, p. 474, n. 115.

The larva in India feeds on the leaves of palms, Areca, Caryota, Phomiz, Calamus, and Cocos, Natural Order Palmes.

#### 116. IAMBRIX STELLIFER, Butler.

Astictopterus stellifer, Butler, Trans. Linn. Soc. Lond., Zoology, second series,

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vol. i, p. 555, n. 7 (1877); Asticopterus [sic !] (Iambrys sic !) salsala, Walker, Trans. Ent. Soc. Lond., 1895, p. 476, n. 125.

This butterfly has never been bred, but the closely-allied *I. salsala*, Moore, in India feeds on bamboos and grasses, Natural Order *Gramineæ*.

### 117. TABACTROCERA ATROPUNCTATA, Watson.

Taractrocera atropunctata, Watson, Journ. Bomb. Nat. Hist. Soc., vol. x, p. 676, n. 275, pl. A, fig. 9, male (1897).

Transformations unknown.

### 118. HYAROTIS ADRASTUS, Cramer.

Papilio adrastus, Cramer, Pap. Ex., vol. iv, p. 62, pl. cocrix, figs. F, G, male (1780); Hyatotis adrastus, Walker, Trans. Ent. Soc. Lond., 1895, p. 476, n. 122.

The larva in Sumatra feeds on *Calamus*, and in India on *Phanix* and *Calamus*, Natural Order *Palmeæ*, and doubtless on other palms.

#### 119. MATAPA ARIA, Moore.

Hesperia aria, Moore, Horsfield and Moore, Cat. Lep. Mus. E. I. C., vol. i, p. 254, n. 587 (1857); Matapa aria, Walker, Trans. Ent. Soc. Lond., 1895, p. 473, n. 108.

The larva in India feeds on the leaves of bamboos, Bambusa, Dendrocalamus and Ochlandra, Natural Order Gramines.

### 120\*. ERIONOTA THRAX, Linnæus.

Papilio thras, Linnseus, Syst. Nat. Ins., ed. xii, vol. i, pt. 2, p. 794, n. 264, (1767); Erionota thras, Walker, Trans. Ent. Soc. Lond., 1895, p. 476, n. 121.

Mr. James J. Walker records the breeding of this large skipper at Hongkoug on banana leaves. In India also the larva feeds on species of *Musa*, Natural Order *Scitaminess*.

## 121. NOTOCRYPTA FEISTHAMELLII, Boisduval.

Thymele feisthamelii, Boisduval, Voy l'astrolahe, Lep., p. 159, pl. iii, fig. 6 (1832); *Plesioneura alysos*, Moore, Proc. Zool. Soc. Lond., 1865, p. 789; *Notocrypta. alysos*, Walker, Trans. Ent. Soc. Lond., 1895, p. 473, n. 109.

In the Western Himalayas the larva of this butterfly feeds on Hedychium, Natural Order Scitamines; in South India it feeds on Curcuma, Hedychium, and Amonum, all Natural Order Scitamines.

### 122. UDASPES FOLUS, Cramer.

Papilio folus, Cramer, Pap. Ex., vol. i, p. 118, pl. 1xxiv, fig. F, female (1775); Udaspes folus, Walker, Trans. Ent. Soc. Lond., 1895, p. 476, n. 123.

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The larva of this species in India feeds on Curcuma, Kæmpferia, Helychium, and Amomum—all Natural Order Scitamineæ.

#### 123. TELICOTA BAMBUSE, MOORE.

Pamphila bambusæ, Moore, Proc. Zool. Soc. Lond., 1878, p. 691, pl. rlv, fig. 11, male; 12, female; Telicota bambusæ, Walker, Trans. Ent. Soc. Lond., 1895, p. 475, n. 116.

The larva in India feeds on the leaves of bamboos, Bambusa and Oxytenanthera, Natural Order Graminese.

#### 124. TELICOTA AUGIAS, Linnseus.

Papilio augias, Linnæns, Syst. Nat. Ins., ed. xii, vol. i, pt. 2, p. 794, n. 257 (1767); Telicota augias, Elwes and Edwards, Trans. Zool. Soc. Lond., vol. xiv, p. 251 (1897).

This species does not appear to have been bred. Messrs Elwes and Edwards record it from Hongkong, but it is very difficult to say from examining the markings only whether any particular specimen of this group of the genus from Hongkong is *T. bambusæ* or *T. augias*; in markings the specimens seem to be intermediate. Those gentlemen apparently make out differences between the two species in the form of the clasp in the males, which from the figures given by them (l. c., pl. xxv, figs. 62, 62a, augias, and 63, bambusæ) seem to be sufficient to distinguish the males.

### 125. PADRAONA DABA, Kollar.

Hesperia dara, Kollar, Hugel's Kaschmir, vol. iv, pt. 2, p. 455, n. 4 (1844); Telicota dara, Elwes and Edwards, Trans. Zool. Soc. Lond., vol. xiv, p. 255 (1897); Telicota mæsoides, Walker, Trans. Ent. Soc. Lond., 1895, p. 475, n. 117.

The larva in South India feeds on Bambusa, Oxytenanthera, and Ochlandra, Natural Order Graminess.

#### 126. HALPE CEYLONICA, MOORE.

Halpe ceylonica, Moore, Proc. Zool. Soc. Lond., 1878, p. 690, pl. xlv, fig. 9, male; Halpe moorei, Watson, Proc. Zool. Soc. Lond., 1893, p. 109; Walker, Trans. Ent. Soc. Lond., 1895, p. 475, n. 118.

In South India the larva feeds on Bambusa and Oxytenanthera, Natural Order Graminese.

#### 127. BAOBIS OCEIA, Hewitson.

Hesperia occia, Hewitson, Desc. Hesperidæ, p. 31, n. 22 (1868); Baoris occia, Walker, Trans. Ent. Soc. Lond., 1895, p. 473, n. 110.

The larva in South India feeds on Bambusa, Dendrocalamus, and Ochlandra, Natural Order Graminese.

#### 128. CHAPRA MATHIAS, Fabricius.

Hesperia mathias, Fabricius, Ent. Syst., Suppl., p. 433, n. 289-290 (1798); Chapra mathias, Walker, Trans. Ent. Soc. Lond., 1895, p. 474, n. 113.

The larva in India feeds on rice Oryza sativa, Linn., and on grasses, Natural Order Gramines.

### 129. PARNARA CONJUNCTA, Herrich-Schäffer.

Goniloba conjuncta, Herrich-Schaffer, Prodr. Syst. Lep., vol. iii, p. 75, n. 44 (1869); Hesperia narosa, Moore, Proc. Zool. Soc. Lond., 1878, p. 687, pl. xlv, fig. 4, male; Baoris narosa, Walker, Trans. Ent. Soc. Lond., 1895, p. 474, n. 111.

The larva in South India has been bred on Indian Corn or Maize, Zea Mays, Linn., and on coarse broad-leaved grasses, Natural Order Graminese.

#### 130. PARNARA ASSAMENSIS, de Nicéville.

Parnara assamensis, de Nicéville, Journ. A. S. B., vol. li, pt. 2, p. 65, n. 202 (1882); Wood-Mason and de Nicéville, Journ A. S. B., vol. lv, pt. 2, p. 382, n. 215, pl. xviii, figs. 5, 5a, male; pl. xvii, figs. 7, 7a, female (1886); Baoris assamensis, Walker, Trans. Ent. Soc. Lond., 1895, p. 474, n. 112.

This species has never been bred.

#### 131. PARNARA GUTTATUS, Bremer and Grey.

Endamus guttatus, Bremer and Grey, Schmett. N. China's, p. 10, n. 43 (1853); Parnara guttatus, Walker, Trans. Ent. Soc. Lond, 1895, p. 474, n. 114.

The larva in India feeds on grasses and rice, Oryza, Natural Order Gramines.

#### 132. PARNABA CONTIGUA, Mabille.

Pamphila contigua, Mabille, Bull. Soc. Zool., France, vol. ii, p. 232, male (1877); Elwes and Edwards, Trans. Zool. Soc. Loud., vol. xiv, p. 282 (1897).

This butterfly has never been bred.

### 133. PARNARA PELLUCIDA, MUTTAY.

Pamphila pellucida, Murray, Ent. Month. Mag., vol. xi, p. 172 (1875).

Has never been bred to my knowledge.

## 134. PARNARA COLACA, MOORE.

Hesperia colaca, Moore, Proc. Zool. Soc. Lond., 1877, p. 594, pl. lvii, fig. 7, male.

In South India the larva of this butterfly feeds on soft, small grasses, Natural Order Graminess.

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#### 135. PARNARA BEVANI, MOORE.

Hesperia bevani, Moore, Proc. Zool. Soc. Lond., 1878, p. 688.

The larva in South India feeds on rice, Oryza, Natural Order Gramineze.

#### 136<sup>\*</sup>. ISMENE ATAPHUS, Watson.

Ismens ataphus, Watson, Proc. Zool. Soc. Lond., 1893, p. 126; Walker, Trans. Ent. Soc. Lond., 1895, p. 473, n. 106.

The larva in Ceylon and the Western Himálayas feeds on *Hiptage*, Natural Order *Malpighiaceæ*.

### 137\*. HASORA VITTA, Butler.

Hesperia vitta, Butler, Trans. Ent. Soc. Lond., 1870, p. 498, Lep. Ex., p. 167, n. 3, pl. lix, fig. 9 (1874); Hasara vitta, Walker, Trans. Ent. Soc. Lond., 1895, p. 473, n. 107.

Originally described from Sarawak in Borneo. The sex of the type specimen is not stated by the describer. It has never been bred.

#### 138. PARATA ALEXIS, Fabricius.

Papilio alesis, Fabricius, Syst. Ent., p. 533, n. 387 (1775); Papilio cramus, Cramer, Pap. Ex., vol. iii, p. 163, pl. colxxxiv, fig. E, male (1780).

This is probably the species Mr. J. J. Walker records from Hongkong as *Hasora vitta*, Butler. The larva in Calcutta feeds on *Pangamia*, Natural Order *Leguminosæ*, and on *Heynea*, Natural Order *Meliaceæ*; in South India it feeds on the first-named plant.

#### 139. RHOPALOCAMPTA BENJAMINII, Guérin.

Thymele benjaminii, Guérin, Delessert's Souv. voy. dans l'Inde, vol. ii, p. 79, pl. xxii, fig. 2.

The larva in Sikhim in the Eastern Himálayas feeds on Sabia Natural Order Sabiaces; and in the Western Himālayas on the same plant.

140<sup>#</sup>. Cyclopides etura, Mabille.

Cyclopides etura, Mabille, Soc. Ent. Belg., vol. xxxv, p. 1xxv (1891).

Described from a female from Hongkong. I have not been able to identify it, and Messrs. Elwes and Edwards omit it from their Revision of the Oriental *Hesperiidse* in Trans. Zool. Soc. Lond., vol. xiv, pp. 101-324 (1897). Its food-plant is unknown.

# II.—Descriptions of some new species of Orchides from North-West and Central India.—By J. F. DUTHIE, B.A., F.L.S., Director, Botanical Department, North India.

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Since the publication in 1898 of the four volumes on the Sikkim orchids by Sir George King and Mr. R. Pantling, I have been engaged during my spare time in the preparation of a similar work on the orchids of North-West and Central India. As, owing to more pressing work, there may be some delay in its completion, I have decided to publish at once the descriptions of some new species, which have been discovered within the period during which I have been able to make a special study of the subject.

For the greater portion of the material, on which the following descriptions are based I am indebted to my friend, Mr. P. W. Mackinnon, who for many years has taken a keen interest in the botany, and especially the orchids, of the Mussoorie district. Also, by his having carefully trained some intelligent hillmen in his service to work as collectors, some very interesting results have been obtained. I wish to express also my appreciation of Sir William Thiselton-Dyer's kindness in allowing me to consult Mr. R. A. Rolfe, the eminent orchidologist at the Royal Herbarium at Kew, from whom I have received great assistance.

# 1. MICROSTYLIS MACKINNONI Duthie, n. sp.

Whole plant 1-1.7 dm. high. Stem 3-4 cm., swollen below and rising from the base of the previous year's pseudo-bulb; lower portion enclosed within the leaf-sheaths. Leaves 2 or 3, horizontal, unequal in size, the larger one about 6 cm. long and 4 cm. broad, ovate, obtuse, 3-7-nerved, cordate and amplexicaul at the base, fleshy; upper surface dark brownish-green; main nerves 3-7, prominent beneath and purplecoloured, the interspaces raised above, and giving the whole leaf a bullate appearance. Scape reddish-purple, sharply 4-angular. Raceme the scape; bracts subulate, persistent, reflexed, shorter than longer than the ovary. Flowers sessile, very small, reddish-purple, resupinate. Dorsal sepal ovate-lanceolate, subacute; lateral shorter, subfalcate, edges of all reflexed. Petals linear, shorter than the sepals, much reflexed. Basal and apical portions of lip divided by a raised rim, basal lobes falcately ovate-lanceolate, contiguous, or overlapping at the tips; apical portion of lip deeply bifid and protruded, deep crimson-purple. Column with fleshy rounded arms. Anther with a truncate or emarginate lip. Ovary clavate, curved, not twisted.

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Western Himālaya, uear Mussoorie, on the southern face of the Park Hill, up to 6,000 feet, P. W. Mackinnon; also on the Kalanga Hill in Dehra Dun, 2-3,000 feet, Mackinnon's collector.

Although most nearly related to M. Wallichii, the very different leaves at once distinguish this plant from any of the many forms of that species. It has also much smaller flowers and a very differently shaped lip.

## 2. OREORCHIS ROLFEI Duthie, n. sp.

Pseudo-bulb globose. Leaves two or three, about 2 dm. long by 1 to 1.5 cm. broad, deflexed at the tips. 3-5-nerved, plicate. Scape about as long as the leaves, rising from near the top of the pseudo-bulb. Peduncle firm, with 3 or 4 close-fitting tubular sheaths. Raceme many-flowered, about 6.7 cm. long. Flowers sessile, rather crowded, about 1.4cm. across. Floral bract minute, less than half the length of the ovary. Sepals about equal, 1.4 cm. long, lanceolate, subacute, pale yellowish-green, slightly spreading. Petals as long as the sepals, but narrower, oblanceolate, subacute, pure white with a few purple blotches. Lip obovateoblong (when spread out), narrowed at the base into s short sac-like claw, side-lobes linear, fleshy, white, half the length of the mid-lobe; mid-lobe deflexed, white, and like the petals blotched with purple, apex with a shallow sinus, base of disc with a prominent fleshy oval channelled callus. Column curved, dilated at the base, concave in front. Pollinia globular, united to a short thick conical candicle.

Western Himālaya, on Nág Tiba in Tehri-Garhwal, at an elevation of about 8,000 feet. Mackinnon's collector. Flowers in June.

This species is most nearly allied to *O. micrantha*, but the spike is shorter and the flowers are more crowded; it differs also by having a saccate base to the lip, and both the lip and petals are pure white spotted with purple. The callus at the base of the lip is oval and not linear. I have much pleasure in naming this orchid after Mr. R. A. Rolfe, of the Royal Herbarium at Kew.

# 3. CIRRHOPETALUM HOOKERI Duthie, n. sp.

Cæspitose. Pseudo-bulbs crowded, ovoid or nearly round, 1.5-1.7 cm. long. Leaves solitary on each pseudo-bulb, 3-4 cm. long and 1-1.2 cm. broad, linear-lanceolate or falcately so, tapering to the base, hardly petioled, notched at the obliquely obtuse or acute apex, coriaceous, dark green above, paler beneath, margin narrowly hyaline. Scape equalling or exceeding the leaves, issuing from near the base of the pseudo-bulb, lower portion enclosed within sheaths. Flowers 3-4, umbellate. Floral bracts 5 m. long, lanceolate, acuminate, membranous, shorter than the long-stalked ovary, margins incurved. Dorsal sepal 5 m. long, quite

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free at its base from the lateral pair, ovate, emarginate, concave and embracing the column, pale yellow with three broad reddish-purple veins; *lateral sepals* 2.1 m., cohering at their base and adnate to the foot of the column, twisted and constricted above their auricled base, linear-lanceolate and with acuminate cucullate tips, yellow with three to four bright red veins, which become indistinct upwards. *Petals* a little shorter than the dorsal sepal. broadly and obliquely ovate, rounded at the apex, yellow tinged with reddish-purple at the base. *Lip* deflexed from about the middle, oblong, with the margins incurved and forming a deep furrow on the upper surface, very thick and fleshy, yellow with reddish-purple blotches on the basal portion of the raised margins. *Column* thick, with a long incurved foot; apical processes 2, triangular, setaceous.

Western Himālaya: in Tehri-Garhwal, east of Tehri, epiphytic on Rhododendron arboreum, at elevations between 5 and 6,000 feet, Mackinnon's collector.

This species is most nearly related to *O. cæspitosum* of Wallich. It differs by having almost globular pseudo-bulbs and much longer scapes, the lateral sepals cohere at the base only; the petals are obtuse and quite entire; the shape of the lip is different, as is also the colouring of the flower. I have dedicated the species to my friend and benefactor, Sir Joseph D. Hooker, G.C.S.I., F.R.S.

# 4. EULOPHIA CAMPANULATA Duthie, n. sp.

Height of plant 9-15 dm, the leaves and scape rising from a horizontal, oblong tuber. Pseudo-stem formed by the sheaths enclosing the bases of the leaves and scape. Leaves few, linear, acuminate, 3-4.5 dm. long, and about 3 cm. broad; veins sharply prominent. Scape exceeding the leaves, with a few long tight-fitting acuminate sheaths towards the base. Flowers 6-10, in a lax raceme, appearing with the leaves, about 2.5 cm. in diam., erect in bud, drooping and campanulate when open. Floral bracts lanceolate, acuminate, less than half the length of the ovary. Sepals and petals prominently veined on the back, bright yellow outside and pale lemon-coloured within. Dorsal sepal obovate, cuspidate, 2 cm. long; lateral, rather shorter, falcately oblong, obtuse, or mucronate, adnate to the base of the column. Petals obovate, obtuse, about as long as the lateral sepals. Lip 3-lobed, longer than the sepals, with a short subacute conical sac at the base; side-lobes erect, large, rounded, pale yellow tinged with purple; mid-lobe bent upwards, and with reflexed undulate margin, suborbicular when flattened out; the disc with 5-8 prominent ridges terminating within the apex of the apical lobe in an oblong grooved callus, and prolonged at the base into two sets of finger-

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like projections. Column about 1 cm. long, oblong, narrowly winged, curving into a short foot at the base. Pollinia 2, globose, attached by a cylindric caudicle to a triangular gland.

NORTH-WEST INDIA: Dehra Dun, at Karwapáni, W. Bell, and P. W. Mackinnon's collector; N. Oudh, at Chandanpur in the Gonda district. Duthie's collector.

Amongst the Indian species this very handsome orchid appears to be most nearly related to *E. Mannii*, Hk. f., which is found in Sikkim and in Upper Assam. It was originally discovered in Dehra Dun in 1879 by Mr. W. Bell, formerly Head Gardener at the Saharanpur Botanical Garden, after whom I have named it.

### 5. EULOPHIA MACKINNONI Duthie, n. sp.

Rhizome composed of a series of triangular flattened tubers. Leaves few, plicate, 5 to 6.5 dm. long and 5 to 8 cm. broad, appearing with the flowers, broadly lanceolate, acuminate, tapering into long sheaths, and with a few leafless sheaths below; nerves prominent. Scape 6-4 dm., arising from the swollen base of the pseudo-stem. Flowers, rather large, arranged in a lax raceme, spreading and afterwards deflexed. Bracts as long as, or shorter than, the ovary, linear, acuminate, persistent. Sepals and petals fleshy, yellow, tinged with reddish-brown, veins prominent outside. Dorsal sepal 1.7 cm. long, ovate, obtuse, subcordate at the base, 9-veined, margin inflexed at the apex; lateral, a little longer than the dorsal, unequal at the base. Petals shorter than the sepals, oblong-obovate, obtuse, overlapping and with their margins reflexed Lip 3-lobed, with long erect rather shallow side-lobes, at the apex. its body with 5-7 parallel purple-coloured ridges which extend into a carunculate area within the apical lobe; apical lobe rounded, its margin undulate. Spur short, geniculate. Column rather broad, winged, with no foot. Anther bicornute at the apex, its lip 2-toothed. Stigma transverse, placed immediately under the anther. Pollinia, tranversely oval, attached by a broad caudicle to a shallow crescent-shaped gland.

NORTH-WEST INDIA: Dehra Dun, Mackinnon; Siwalik range, Vicary (in Herb. Calc.); Bahraich district in N. Oudh, Duthie's collector; Raipur district in Cent. Provinces, J. Marten. In the Saharanpur herbarium there is an old specimen named "E. bicolor" which is said to have been collected near Mussoorie in October 1842.

This species is evidently allied to E. geniculata, King and Pantling, an extremely rare Sikkim orchid. It differs chiefly in the shape of the rhizome, the very much broader leaves, the colour of the flowers, and in the shape of the lip.

## 6. CYMBIDIUM MACKINNONI Duthie, n. sp.

Terrestrial, cæspitose. Pseudo-stem short, emitting many thick spongy roots. Leaves linear, acuminate, 3-4 dm. long and about 1.3 cm. broad; margins not serrulate, the lowest ones sheath-like and membranous. Scape 1-flowered, much shorter than the leaves, clothed to the base with loose lanceolate acuminate cymbiform hyaline sheaths. Floral bract longer than the much curved ovary, pale yellow with purple veins. Flowers about 5 cm. across, nodding. Sepals and petals spreading, green. Sepals lanceolate, obtuse, a little longer than the petals. Petals elliptic-lanceolate, obtuse, 5-nerved. Lip about as long as the petals, obovate-oblong (when spread out), 3-lobed, saccate at the base, very pale yellow blotched with purple; lateral lobes narrow, erect; the terminal one abruptly deflexed, rounded at the apex and nearly entire; the disk with two raised smooth lamellæ extending from the base to a little beyond the side-lobes. Column short, stout, curved, concave in front, marked with purple blotches like the lip. Pollinia 4, obliquely obovoid, plano-convex, the segments of each pair unequal, attached to a hemispherical gland. Ripe capsule 1.5 dm. long (including the long pedicel), ellipsoid-clavate, prominently ribbed.

WESTERN HIMĀLAYA: near Mussoorie, at an elevation of about 5,500 feet, growing under trees; in flower during February, P. W. Mackinnon.

Mr. Rolfe informs me that its nearest ally is *O. virescens*, Lindl., a native of Japan. Of Indian species it most nearly resembles *C. cyperifolium* in habit. It is, however, a much smaller plant, the scape is always 1-flowered, and the colouring of the lip and the shape of the pollinia and gland are very different; also the margins of the leaves are entire and not serrulate as in *O. cyperifolium*. The latter is also found in similar localities near Mussoorie, but always at a slightly higher elevation, and it comes into flower several weeks later.

# 7. LISTERA INAVATI Duthie, n. sp.

Whole plant 1.5 to 2 dm. high. Roots fibrous. Stem stout, about as long as the raceme, and bearing 3-6 loosely-fitting, blunt sheaths, the two upper ones sometimes opposite and leaflike. Flowers in dense racemes, 4 m. long; rachis glandular-pubescent. Floral bract ovate or lanceolateacuminate, a little longer than the stalk of the ovary. Sepals and petals connivent; dorsal sepal oval, concave, about 2 m. long; lateral sepals a little longer than the dorsal, obliquely ovate, tapering to an obtuse apex. Petals about as long as the dorsal sepal, spathulate, subacute.

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Lip twice as long as the lateral sepals, narrowly oblong, deeply cleft at the apex, with two slightly spreading obtuse lobes, midrib thickened. Column short, stout, dilated at the base and apex. Anther suborbicular, bifid at the apex. Pollinia narrowly obovoid. Ovary oval or subglobose, about as long as its stalk, glandular-pubescent.

WESTERN HIMĀLAVA; in the Kagán valley of the Hazāra district. Discovered in July 1897 by *Inayat Khán*, head plant-collector of the Botanical Department of N. India (No. 22,596).

A shorter and much stouter plant than *L. Lindleyana*, and with shorter and more densely-flowered racemes. The shape of the sepals, petals, anther and pollinia are altogether different.

# 8. LISTERA MICROGLOTTIS Duthie, n. sp.

A leafless parasite, 2-3.3 dm. in height. *Root-fibres* clylindrical, brittle, pale yellowish-brown. *Stem* about as long as the receme, nearly white, bearing 2-4 loose-fitting obtuse pale sheaths. Rachis of raceme, pedicels and bracts glandular-pubescent. *Flowers* crowded, about 7 m. in diameter, pale green; pedicel a little longer than the ovary; *floral* bract equalling or exceeding the pedicel, oblong, obtuse or subacute. *Sepals* ovate, subacute, about 4 m. long; the lateral ones somewhat oblique. *Petals* as long as the sepals, linear, margins reflexed. *Lip* linearspathulate, equalling the petals in length, entire at the apex, margins reflexed. *Column* erect, a little shorter than the petals, dilated towards its base and apex. *Pollinia* 2, globose, without caudicles, extremely deliquescent. *Ovary* with pedicel 8 m. long. *Capsule* turgid, its ridges thick and often bearing short, broad-based, tooth-like projections.

WESTERN HIMLĀATA: in Tehri-Garhwál, east of Tehri, growing under oaks and rhododendrons at elevations between 5,000 and 6,000 feet, *P. W. Mackinnon's collector*; also on the wooded hillsides below Mussoorie at similar elevations. Flowers during August and September. This plant, although resembling *L. Lindleyana* in general habit, differs from any known species of *Listera* (including *Neottia*) by its very remarkably restricted petal-like lip.

# 9. APHYLLORCHIS GOLLANI Duthie, n. sp.

A tall leafless terrestrial herb, from 4 to 5 dm. in height. *Rhizome*. with numerous far-extending fleshy roots, not scaly. *Stem* erect, stout, bearing several unequal tubular blunt sheaths. *Raceme* about 1 dm. long, *Flowers* several, 2 cm. long. *Floral bract* a little longer than the ovary, elliptic-lanceolate, acuminate, 5-7-nerved, at first deflexed, ultimately erect. *Sepals* 2 cm. long, erect, ovate-lanceolate, acuminate, with spreading tips; their nerves, as also the ridges of the clavate ovary, dark reddish-brown on a pale green ground. Petals shorter than the sepals, lanceolate, acuminate, pale green with purple veins, midrib thickened on the back. Lip shorter than the petals, somewhat deflexed from a .concave winged claw attached to the base of the column; apical portion ovate-acuminate, its sides towards the base erect and with a reflexed erose margin, with no convexity near the apex. Column 1.2 cm. long, stout, curved, narrowed towards the base. Anther 2-celled, cells parallel. Pollinia ovate-oblong, mealy. Ovary (in flower) 1.7 cm. long, its apex with conspicuous grandular projections between the ribs; stigma with an overlapping irregularly lobulate border.

WETSERN HIMĀLAYA: Tehri-Garhwál, on Nág Tiba, at elevations between 8,000 and 10,000 feet, Gollan (No. 2,062) and Mackinnon's collector (No. 23,000). The original specimens, discovered in 1881 by Mr. W. Gollan, after whom I have named this plant, were in too young a condition even for determining the genus. Its nearest ally is A. alpina, King and Pantling, a high-elevation Sikkim species. From the above it differs chiefly in the rhizome not being scaly, the bracts become erect as the flowers open, it has much shorter racemes, the lip is attached to the base of the column and does not form a pouch, the epichyle has no concavity at its apex, the colouring of the flowers is also very different.

# 10. POGONIA MACKINNONI Duthie, n. sp.

Tuber globose, annular and warted, about 1.2 cm. in diameter. Leaf and scape frequently from the same tuber, but not contemporaneous. Leaf about 5 cm. long and broad, cordate at the base, 7-lobed, terninal lobe acute, the others rounded, principal veins terminating at the end of each lobe, with many less conspicuous intermediate ones; petiole, 2.5 cm. long. Leaves from the flowering tubers much smaller. Scape 1-flowered, about 10 cm. long when in flower, elongating till fruiting, enclosed by two or three rather loose tubular sheaths. Flower shortly pedicelled, spreading; bract erect, shorter than the cylindrical truncate ovary. Sepals spreading, linear-lanceolate, acuminate, 1.6 to 1.7 cm. long, light green blotched with reddish-brown outside. Petals very similar to the sepals, but a little shorter and not so acute at the apex. Lip shorter than the petals, oblong when spread out, strongly 3-nerved, white tinged with green towards the base; side-lobes erect, acute; terminal-lobe blotched with purple. Column slender, 7.8 m. long. Pollinia 2, narrowly clavate, connate below and without a gland.

WESTEEN HIMÄLAVA: near Mussoorie, at elevations between 4,500 and 6,000 feet, P. W. Mackinnon. Flowers during May and June.

Very similar in habit to P. macroglossa, King and Pantling, but the

leaves are more distinctly lobed; the flowers are much smaller, andare spreading, not drooping. Leaves and fruiting scapes are sometimes found on the same tuber.

# 11. HERMINIUM MACKINNONI Duthie, n. sp.

Whole plant upwards of 2.2 dm. high. Tubers narrowly oblong. Lower portion of the stem clothed with a few close-fitting tubular subacute sheaths. Leaves two, 12-14 cm. long by 1-2 cm. broad, oblong or linearlanceolate, acuminate, with loosely amplexicaul tubular bases, 3-5-veined. Spike cylindric, rather broad, about 11 cm. long, many-flowered. Flowers, spreading, crowded, about 10 m. across. Floral bract, 5 m. long, broadly lanceolate, acuminate, a little shorter than the ovary. Sepals 3-4 m., ovate-oblong, acute, subterete, green. Petals as long as the sepals, linear-lanceolate, divergent, white. Lip trifid, a little longer than the petals, deflexed from near its base, white with a slight tinge of green, margins inflexed, lower portion very thick and with a small concavity at the base; side-lobes filiform, curved inwards; midlobe about half as long as the side-lobes, lanceolate, obtuse. Anther-cells, diverging below; pollinia obovate; caudicles, very short, the glands discoid, naked; staminodes large, spreading. Stigmas 2, transversely oblong and lying between the pollinia-glands and the concavity of the lip. Ovary about 6 m. long, ovate-oblong, beaked.

WESTERN HIMALAVA: near Mussoorie, at about 6,500 feet, on oak trees, P. W. Mackinnon. Flowers in August.

A very distinct species, its nearest ally being *H*. angustifolium. It differs from the latter by its fewer much shorter and broader leaves, its shorter and broader flowering spike, white petals and lip, and with the mid-lobe of the latter much longer; the shape of the ovary is also very different.

# 12. HABENARIA ELISABETHÆ Duthie, n. sp.

Height of plant up to 4.5 dm. Bulbs ovoid. Leaves 2-3, approximate towards the base of the stem, with a few lanceolate finely acuminate sheaths above and a few loose ones below them, 6.12 cm. long and 1 to 2 cm. broad, lanceolate, the upper acuminate, the lowest one acute or obtuse, amplexicaul at the base, midrib prominent beneath. Spike long and slender, sometimes up to 2.5 dm. Flowers sessiles, small, greeu, rather crowded, horizontal or deflexed. Bracts lanceolate, acuminate, about half as long as the ovary. Sepals erect, the dorsal one ovate, concave, the lateral ones obliquely ovate. Petals a little longer than the sepals, obliquely ovate, obtuse. Lip 3-cleft, fleshy, longer than the sepals, with a long concave claw; lateral lobes linear, spreading, gibbons

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at their basal edges; midlobe oblong, obtuse, not exceeding the lateral ones. Spur a short obovate sac,  $\frac{1}{6}$  the length of the ovary. Anthercells parallel. Pollinia obovate, curved, attached by a short caudicle to an oval gland. Stigmatic processes clavate. Ovary tapering upwards and curved.

WESTERN HIMĀLAYA: Song, at 8,000 ft. Brandis; near Simla, Edgeworth, Lady E. Bubington-Smith; near Naini Tal, up to 8,000 feet, Oolonel Davidson; Tehri-Garhwál, 7,000 to 10,000 feet., Duthie (524 and 22,990), P. W. Mackinnon; also at Mussoorie, between 6,000 and 7,000 feet, frequently as an epiphyte on oak trees.

Of the Himālayan species of Habenaria this plant appears to be most nearly related to *H. goodyeroides.* It differs principally in having much narrower and thinner leaves, and they are placed much lower down on the stem. The flowering spikes are longer and narrower; the flowers are much smaller and altogether green; the floral bracts are shorter, and the shape of the lip is very different. I have much pleasure in dedicating this species to Lady Elizabeth Babington-Smith, whose keen and practical interest in the botany of Simla during the Viceroyalty of her father, Lord Elgin, resulted in several interesting discoveries.

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# III.—Materials for a Flora of the Malayan Peninsula.—By SIR GEORGE KING, K.C.I.E., M.B., LL.D., F.R.S., &c., late Superintendent of the Royal Botanic Garden, Calcutta.

# No. 13.

The present contribution carries these Materials to the end of the Calyciflors. The orders included in it are Datiscaces, Droseraces, Passifloraces, Begoniaces, Ficoides, Umbelliferse, and Cornaces. It has not been possible for me to prepare my account of the Calycifloral orders in the exact sequence followed in Hooker's Flora of British India; each order, however, bears the ordinal number given to it in that work. The species described in the present paper are 47 in number, and of these fourteen belonging to the genus Begonia, and two belonging to Mastixia, are new to science. I hope in future contributions to take up the orders belonging to the groups Corolliflors and Incomplets.

# Order LXVII. DATISCACEÆ.

Trees or herbs. Leaves petioled, simple or pinnate; stipules 0. Flowers small, diocious in the Indian species, clustered, racemed or panicled. MALE: calyx-tube short, teeth 3-9; petals 0; stamens 4-25. FEMALE: calyx-tube adnate to the ovary, lobes 3-8 short; petals 0; ovary 1-celled, open or closed at the vertex; styles lateral, alternating with as many parietal placentee, simple or 2-partite; ovules very many, ascending or horizontal. Capsule coriaceous or membranous, opening at the vertex between the styles. Seeds very many, small, albuminous; embryo straight, radicle next the hilum.—DISTRIB. Species 4; natives of the Mediterranean, Central Asia, Java, and North-West America.

# TETRAMELES, R. Br.

A large tree. Leaves petioled, ovate, pubescent beneath at least on the nerves. Flowers directions, appearing before the leaves; males panicled, females in elongate racemes, clustered near the ends of the branchlets. MALE: calyx-lobes short; teeth 4, ovate, one or two smaller teeth sometimes added; petals 0; stamens 4, opposite the calyxteeth, inserted round a depressed disc; rudiment of the ovary 0 or quadrangular. FEMALE: calyx-tube ovoid; teeth 4 short; petals 0; styles 4, short, stigmas simple somewhat club-shaped. Capsule ovoid, with 4 lines or slight ridges, membranous, opening at the top between the styles. Seeds very many, minute, flattened, ellipsoid, testa very lax and extending much beyond the nucleus as a loose membrane.

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1. T. NUDIFLORA, R. Br. in Benn. Pl. Jav. Rar. 79, t. 17; A.DC. Prodr. XV. pt I. 411; Bedd. Fl. Sylv. t. 212; Brand. For. Fl. 245: Kurz For. Fl. 535; Clarke in Hook. f., Flor. Brit. Ind. II, 657. T. Grahamiania, Wight Ic. t. 1956; A.DC. l. c. T. rufinervis, Miq. Fl. Ind. Bat. I. pt. I. 726; A.DC. l.c. Anictoclea Graham-iana, Nimmo in Grah. Cat. Bomb. Pl. 252.—Indeterminata, Wall. Cat. 9045.

Andaman Islands; Kurz.—DISTRIB. Eastern Himālaya, Burma and Java.

### Order LIV. DROSERACEÆ.

Herbs with large glandular hairs, exuding a viscid fluid. *Flowers* hermaphrodite, regular. *Petals* 5 hypogynous, rarely perigynous, thin, nerved, imbricate, marcescent, free or slightly united. *Stamens* 4 to 20, hypogynous or slightly perigynous; filaments free or slightly monadelphous, subulate or filform: anthers 2-celled; disc none. *Ovary* free or adherent by its base to the calyx, globose or ovoid, 1-celled; *styles* 5, sometimes 3, simple or bifid; *stigmas* capitate; placentas parietal, equal in number to the styles; *ovules* and *seeds* numerous. *Capsule* membranous, 1-to 5-celled. *Seeds* with fleshy albumen; *embryo* cylindric or minute.—DI\_JTRIF. Species about 100; in temperate and tropical regions generally, but absent from the Pacific Islands.

## DROSERA, Linn.

Small perennial herbs. Leaves radical and rosulate, or cauline and alternate, bearing many large glandular viscid hairs, usually circinate in vernation, with scarious stipules adnate to the petiole, or exstipulate. Calyx persistent, free from the ovary, 4-to 8-partite or sepals free. Petals 4 to 8, hypogynous or very slightly perigynous, marcescent. Stamens equal in number to the petals, hypogynous or slightly perigynous. Ovary 1-celled; styles 2 to 5; ovules parietal, numerous. Capsule loculicidally 2-to 5-valved. Seeds numerous, obovoid-ellipsoid (in the Indian species); testa black, smooth, reticulate.—DISTRIB. Species about 90, cosmopolitan, but absent in Polynesia; Australia.

| Leaves cuneate-spathulate, a | ll radical  | •••       |      | 1 D. Burmanni. |
|------------------------------|-------------|-----------|------|----------------|
| Leaves peltate-lunate with   | long narrow | petioles, | some |                |
| radical the others cauline   | •••         | •••       | •••  | 2 D. peltata.  |
| Leaves linear, all cauline   | •••         | •••       | •••  | 3 D. indica.   |

1. DROSERA BURMANNI, Vahl Symb. III, 50. Leaves all radical, rosulate, cuneate-spathulate, 5 to 1.5 in. long, stipules half as long as the petiole. Peduncles erect, 3 to 8 inches high, naked, glabrous. Flowers racemose, their pedicels glabrous, erect in fruit; calyx minutely papillose: styles 5, simple. Don, Prod. Fl. Nep. 212; DC. Prod. I, 318; Roxb. Fl. Ind., II, 113; Wall. Cat. 1242; Wight, Ill. t. 20; Wight, Ic. 944; W. & A. Prod. Fl. Penins. Ind. 34; Planch. in Ann. Sc. Nat. Ser. III. Vol. IX, 190; Miq. Fl. Ind. Bat., Vol. 1, pt. II, 120; Suppl. 160; Hf. & Th. in Journ. Linn. Soc. II., 82; Dalz. & Gibs. Fl. Bomb., 12; Kurz in Journ., As. Soc., Beng., 1876, pt. II, 310; Clarke in Hook. fil. Fl. Br. Ind. II, 424; Trimen, Fl. Ceyl. pt. II, 145.

MALACCA: Province Wellesley, and probably in the other provinces.— DISTRIB. British India, Ceylon, the Malay Archipelago, China, Japan, Africa, Australia, up to elevations of 8,000 feet.

2. DROSEBA PELTATA, Sm. ex Willd. Sp. Pl. I, 1546. Stem erect, leafy, 3 to 12 in. high, simple or branched near the apex. Leaves subrosulate, also scattered and alternate on the stem, peltate-lunate, with very long glandular hairs, 2 to 25 in. broad (including the radiating hairs); the petiole much longer than the laminæ, very slender. Racemes 1 to 3 in. long, terminal or sub-terminal; flower-pedicels 35 to 75 in. long, glabrous. Sepals ovate, glabrous, erose or fimbrirate. Styles 3, fimbriate. Seeds as in D. indica, III. DC. Prod. I, 319; Sm. Exot. Bot., I, 41; Don Prod. Fl. Nep., 212; Wight. t., 20; W. & A. Prod. Fl. Penins. Ind., I, 34; Planch. in Ann. Sc. Nat. Ser. III, Vol. IX, 296; Kurz in Journ. As. Soc. Beng., 1876, pt. 2, 310; Clarke in Hook. fil. Fl. Br. Ind., II, 424; Trimen, Fl. Ceyl. pt. II, 146. D. lunata, Ham. : DC. Prod. 1, 319; Wall. Cat., 1243; Hook. Ic. Pl. 54; Planchon l.c., 296; Miq. Fl. Ind. Bat., II, Pt. 2, 120. D. lunata, gracilis et D. foliosa, Hook. fil. Journ. Linn. Soc., II, 82; 297, 298. D. Lobbiana Turcz. (fide Kurz).

MALACCA, SINGAPORE, and probably in some of the other provinces.— DISTRIB. Malay Archipelago, British India, and Australia.

3. DROSERA INDICA, Linn. Sp. Pl. 282. Stem 2 to 12 in. long, decumbent, usually simple. Leaves alternate, scattered, 1 to 3 in. long, linear, not much broader than the glabrous petiole, very glandularpubescent. Racemes 2 to 6 in. long, leaf-opposed; flower-pedicels '35 to 75 in. long, rusty-pubescent. Sepals lanceolate, minutely glandulose or sub-glabrous. Styles 3, bifid to the base. Seeds obovoid, much reticulate not scrobiculate. DC. Prod., I, 319; Roxb. Fl. Ind., II, 113; Wall. Cat., 1244; Wight Ill. t., 20; W. & A. Prod. Fl. Penins. Ind., 34: Planch..in Ann. Sc. Nat. Ser., III, Vol. IX, 209; Mig. Fl. Ind. Bat., Vol. I, Pt. 2, 120; Hf. & Th. in Journ. Linn. Soc. II, 82; Dalz. & Gibs. Fl. Bomb., 12; Kurz in Journ. As. Soc Beng., 1876, Pt. II, 310; Trimen Fl. Ceyl., Pt. II, 146; Clarke in Hook. fil. Fl. Br. Ind., II, 424. D. Finlaysoniana, Wall. Cat., 3752. D. serpens, Planch. l.c., 204. - Rheede, Hort. Malab., X, t. 20.

MALACCA: Province Wellesley, and probably in the other provinces.—DISTRIB. British India, Ceylon, Malayan Archipelago, tropical Australia, and Africa.

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# Order LI. PASSIFLOREÆ.

Twining herbs or shrubs, rarely erect. Leaves alternate, stipulate, entire or lobed, penni- or palmi-nerved, frequently glandular beneath. Petiole usually bearing glands. Stipules foliaceous or minute, Tendrils axillary or 0. Inforescence axillary, cymose, sometimes with one or more branches cirrhose, rarely flowers solitary. Bracteoles 3, minute and scattered, or foliaceous and forming an epicalyx, rarely 0. Flowers regular, unisexual, or bisexual. *Calyx* tubular at the base, fleshy, subcoriaceous or membranous; segments imbricate, 5. Petals 0 or as many as the calyx-lobes, springing from the tube of the calyx, membranous or fleshy, imbricate, marcescent. Corona of one or more rows, filamentous or membranous or both, arising from various portions of the calyxtube, rarely 0; basilar corona urceolate or cup-shaped, surrounding the base of the androccium, sometimes represented by five separate glands of the disc; rarely 0. Stamens 5, in a tube or free to the base, perigynous; anthers oblong, 2-celled, basi- or dorsi-fixed, dehiscing laterally or introsely. Ovary superior, on a gynophore or subsessile, 1-celled with 3 parietal placentas, rudimentary or absent in the male flowers. Styles 1 or 3; stigmas reniform, capitate or flattened. Orules numerous, pendulous, anatropus; funicle expanded into a cup-shaped arillus. Fruit baccate or capsular. Seeds numerous, ovoid or flattened, often pitted, covered with a fleshy arillus; albumen fleshy, rarely scanty; embryo straight, cotyledons flat leafy, radicle short terete.-DISTRIB.: Chiefly tropical; most numerous in South America. Genera about 18; species about 320.

| Erect shrubs, without tendrils           | ••• |     | 1 PAROPSIA.   |
|------------------------------------------|-----|-----|---------------|
| Scandent, with tendrils:                 |     |     |               |
| Fruit pulpy, indehiscent ; flowers large |     | ••• | 2 PASSIFLORA. |
| Fruit dehiscent; flowers small           |     | ••• | 3 ADENIA.     |

## 1. PAROPSIA, Noronh.

Shrubs. Leaves simple. Flowers in dense axillary cymes. Calyztube short; limb 5-parted. Petals 5, springing from the base of the calyx-tube. Corona of five threads springing from the tube of the calyx and more or less divided into five phalanges. Gynophore short; filaments flat; anthers oblong. Ovary subglobose. Slyle short, dividing into three branches; stigmas reniform-capitate. Fruit capsular.—Dis-TRIB. Species 4 or 5, natives of tropical Africa and Malaya.

P. VARBCIFORMIS, Mast. in Trans. Linn. Soc., XXVII, 639. A shrub or small tree. *Leaves* subcoriaceous, oblong or oblong-lanceolate, acute or shortly acuminate, the base cuneate, the edges entire or (rarely) minutely serrate; both surfaces glabrous except the glaudular puberulous

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midrib and nerves; the lower with numerous minute adpressed scales; main 6 or 7 pairs spreading, curved; length 2.5 to 5.25 in., breadth l to 1.75 in., petiole 1 to 2in. Flowers about 5 in. in diam., on short, rusty-tomentose pedicels 15 in. long. Calyx campanulate, leathery, adpressed-villose outside like the pedicels, the lobes much longer than the tube, unequal, oblong, subacute. Petals oblanceolate, smaller than the calyx-lobes. Corona single, very short, lanate, in 5 phalanges. Stamens 5. Gynophore shorter than the corona; ovary villose. Fruit ovoid or sub-globose, 5 to 7 in. across. Masters in Fl. Br. Ind., II, 600. P. malayana, Planch. ex Masters l.c. Trichodia vareciformis, Griff. Notul., IV, 571.

MALACCA: Griffith, Manigay, and others. PERAK: Scortechini, King's Collector; a common plant.

I can find no constant characters to separate the two species into which this plant has been divided in the Flora of British India and therefore units them under the oldest specific name.

# 2. PASSIFLORA, Linn.

Twining shrubs. Leaves simple or palmilobed, usually with glands on the under surface and on the petiole; stipules thread-like or leafy. Flowers pedunculate; often involucrate; peduncles simple or cymose. Bracteoles 3, small, scattered. Calyx tube fleshy, limb 5-lobed. Petals 5, springing from the throat of the calyx. Corona of one or more rows of fine threads springing from the throat of the calyx-tube and of one or more membranous folds arising lower down. Gynophore surrounded at the base by a shallow membranous cup or basilar corona; filaments 5, flat; anthers oblong, 2-celled, dorsifixed; pollen-grains reticulate on the surface. Ovary 1-celled; styles 3, stigmas reniform-capitate. Fruit baccate. Seeds arillate.—DISTRIB. A genus of about 250 species which are most numerous in tropical and sub-tropical America.

PASSIFLORA HORSFIELDI, Blume, Rumphia, I, 170, t. 52. A slender climber; young branches slightly quadrangular, slender, striate, almost glabrons. Leaves membranous, oval or oblong-ovate, subacute sometimes retuse, the base rounded and minutely emarginate; upper surface pale-brown when dry, shining, glabrons, minutely reticulate; lower surface when young sometimes with sparse deciduous hairs, but more usually glabrous from the first, always dull and whitish and with a few flat dark-coloured glands, the transverse veins and reticulations very distinct; main-nerves about 5 pairs, ascending, faint; length 4 to 6 in.; breadth 2.5 to 3.25 in.; petiole 6 to .9 in., with two oval flat glands near its middle. Inflorescence shorter than the leaves, axillary, about 5-flowered, the flowers 1.25 to 1.5 in. in diam., on slender long pedicels, white tinged with green; corona double, the outer with long erect filamentous segments; the inner about one-fourth as long, its segments few, lanceolate, incurved. Stamens 5; the filaments spreading, clavate; anthers dorsifixed, oblong. Ovary ovoid, hirsute, the gynophore nearly as long as the outer corona; styles long, recurved. Fruit subglobular, '75 in. in diam. Disemma Horsfieldii, Miq., Fl. Ind. Bat., I, Pt. 1, 700.

PERAK; Scortechini 655, 2,192; King's Collector 3,078, 4,104, 5,936, DISTRIB.—Java and Madura.

This is apparently the only species really indigenous in the Malayan Peninsula. There are, however, four American species which have escaped from cultivation. These are :---

P. subcross, L. A small species with diversely shaped leaves, flowers little more than half-an-inch in diameter and ovoid fruits about the same in length.

P. foetida, L. A species with variable leaves, emarginate at the base, often 3-lobed; recognisable at once by its foetid flowers and 3-leaved fimbriate involucre.

P. edulis, Sims. With deeply 3-lobed serrate leaves, flowers more than an inch across; and globular edible fruit. This is often cultivated under the name of Granadilla.

P. quadrangularis, L. A large species with boldly 4-angled stems; handsome fragrant, purple flowers banded with white, 3 to 5 in. across; broadly ovate leaves and large oblique ovate-oblong stipules.

P. laurifolia, L. A more slender species than the last and with smaller flowers of similar colour, with a large 3-leaved or 3-partite involucre of broad segments, and of long filiform stipules; the leaves broadly oblong, entire and shortly apiculate.

# 3. Adenia, Försk.

Scandent. Leaves entire or palmilobed, usually with two or more flat circular glands on the under surface and with similar glands at the apex of the petiole. Oymes axillary, few or many-flowered, on long peduncles, one or more of which is sterile and tendril-like. MALE FLOWER: Calyx tubular or bell-shaped; limb 5-lobed, lobes leathery, imbricate. Petals 5, free, membranous, 1-nerved, springing from the calyx-tube. Corona a ring of threads arising from near the base of the calyx-tube, or wanting. Glands of the disc 5, opposite the sepals, strap-shaped or capitate. Andræcium cup-shaped, membranous beneath; filaments 5, linear-subulate; anthers linear-oblong, 2-celled. Ovary rudimentary or 0. FEMALE FLOWER: Calyz and corolla as in the male. Corona a membranous fold, springing from near the base of the calyx-tube, or none. Glands of the disc 5, strap-shaped, capitate, opposite the sepals. Staminodes 5, forming a membranous cup surrounding the base of the overy, above dividing into barren filaments. Ovary globose or elliptic, sessile or stalked; style cylindrical or none; stigmas 3, capitate or flat and dilated. Fruit capsular, 3-valved. Seeds numerous, attached by long funicles to parietal placentas.-DISTRIB. About 40 species, natives of the tropics of the Old World.

NOTE.—The name used for this genus in Hooker's Flora of British India is Modecca, Lamk. which dates from 1797. Following Engler, I have here used Förskal's name Adenia, which dates from 1775.

| Leaves always deeply 3-lobed                |               | 1 A. trilobata.       |
|---------------------------------------------|---------------|-----------------------|
| Leaves entire :                             |               |                       |
| Leaves minutely peltate at the base; lo     | bes of calyx  |                       |
| long, narrow and reflexed                   |               | 2 A. nicobarica.      |
| Leaves cordate at the base :                |               |                       |
| Base broadly and deeply cordate,            | main-nerves   |                       |
| radiating from the base: flower             | ing pedancles |                       |
| np to 6 in. long                            |               | 3 A. cardiophylla.    |
| Base slightly cordate : main-nerv           | es pinnate:   | 4 A. populifolia var. |
| flowering pedancles less than 2 in          | . long        | pentamera.            |
| Leaves not cordate at the base or only occa | sionally very |                       |
| slightly so : main-nerves usually 2 sometim | es 3 pairs :  |                       |
| Nerves and reticulations of leaves disting  | st            | 5 A. acuminata.       |
| Nerves and reticulations of leaves invisib  | le, the lower |                       |
| surface of the leaves whitish .             |               | 6 A. singaporeana.    |
|                                             |               |                       |

1. ADENIA TRILOBATA, Engl. Jahrb., XIV, 375. Many feet in length, glabrous, the bark on the old shoots cinereous, on the young smooth green. Leaves remote, membranous, broadly cordate at the base, deeply 3-lobed; the lobes lanceolate, the two outer often auriculate at the base, the sinuses wide, rounded, and each bearing a small gland; mainnerves 5, palmate; the lateral nerves and the reticulations few; length 6 to 9 in.; width 4 5 to 6.5 in.; petioles from half as long to nearly as long as the leaf-blades, terete, smooth, not enlarged at the base, the apex with two conical recurved glands. Peduncles slender, smooth, terete, axillary, longer than the petioles, umbellulately cymose; flowers few, 3 to 5 in. long, the females somewhat longer than the males. Calyz tubular, the lobes short, oblong, subscute. Petals narrowly oblong, inserted near the base of the calyx-tube. Filuments united into a tube springing from the fundus of the calyx; anthers linear-oblong, abruptly acute, the connective produced into a minute point. Glands narrowly oblong, blunt, incurved. Staminodes in female flower united into a Rudimentary ovary in male flower trifid. Fruit membranous cup. oblong, scarlet, from 2 to 2.5 in. long when ripe, and 1.5 in. in diam. Seeds compressed, sub-obcordate or sub-rotund, scrobiculate, the arillus thin, clear. Modecca trilobata, Roxb. Hort. Beng., 49; Roxb. Corom. Plant. III, t. 297; Fl Ind., III, 133; Wall. Cat., 1234; Kurz, in Journ. As. Soc., Beng., 1877, II, 95; Masters in Hook. fil. Fl. Br. Ind., II, 602.

ANDAMAN ISLANDS; common -- DISTRIB. Northern parts of British India and Burma.

2. ADENIA NICOBABICA, King. Slender and slightly branched, glabrous Stems minutely sulcate, thin, wiry. Leaves membranous,

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entire, narrowly elliptic-oblong or lanceolate; the base rounded and minutely bi-glandular, slightly peltate; the spex acuminate, rarely abruptly acute; both surfaces shining; main-nerves only about 4 pairs, interarching broadly and far from the edge; intermediate nerves horizontal; reticulations wide; length 2.5 to 4.5 in.; width .6 to 1.8 in.; petiole 4 to 8 in., compressed, not enlarged at the base. Peduncles . longer than the petioles but much shorter than the leaves, bearing a filiform tendril and only one or two flowers. Flowers rather less than '5 in. long, green. FEMALE FLOWER unknown. MALE FLOWER '4 to '5 in. long Calyx campanulate, deeply divided into 5 linear-oblong, subacute, much reflexed lobes. Petals shorter than the calvx and inserted into it below the middle, membranous, reticulate, oblanceolate, their apices truncate and broad. Glands short, oblong, truncate. Anthers about equal to the petals, oblong, obtuse, cordate at the base; the filaments united into a wide tube. Fruit elliptic-oblong, tapered to each end, from 1.5 to 2.3 iu. long, and .75 in. in diam., reddish when dry, smooth. Seeds much compressed, snb-orbicular, with a few shallow pits in the centre, and a row of short depressed radiating grooves round the edge, the aril very thin. Modecca nicobarica, Kurz in Trimen's Journ. Bot. for 1875, p. 327; Mast. in Hook. fil. Fl. Br. Ind. II, 603.

ANDAMAN and NICOBAR ISLANDS; not uncommon. MALACCA; Maingay (Kew Distrib.) 670. PEBAK; Wray 651, 2781; King's Collector 2439; Scortechini 633; Ridley 10280. PENANG; Curtis 1521.

A species distinguished by its entire oblong leaves minutely peltate at the base, by its long narrow reflexed calyx-lobes, and by its rotund seeds with *shallow* pits in the centre and radiating grooves at the edges.

3. ADENIA CARDIOPHYLLA, Engl. in Jahrb. XIV, 376. Rather stout, glabrous. Stems almost terete. Leaves membranous, remote, broadly ovate, rotund-ovate, sometimes almost sub-reniform, the base deeply cordate, the auricles rounded; the apex with a short triangular point; both surfaces smooth; the lower with numerous distinct reticulations; main-nerves about 9, radiating from the base; the secondary nerves sub-horizontal, numerous; length 5 to 9 in.; breadth 3.5 to 7.5 in.; petiole 2 to 4.5 in. long, not thickened at the base but with 2 sessile glands at the apex. Peduncles 4 to 6 in. long, longer than the petioles, with several widely-spreading cymose branches and usually one tendril. MALE FLOWER narrowly ovoid, '2 in. long. Calyx leathery, spotted inside, the mouth with blunt short teeth. Petals thin, broadly oblong-lanceolate, subacute, spotted, their apices level with those of the teeth of the calyx, their bases inserted about the middle of the calyx-tube. Glands short, oblong-cuneiform. Anthers linear-ovate, acute, the filaments united into a tube inserted into the fundus of the calyx. FEMALE FLOWER twice as

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long as the male, tubular. Calyx as in the male, the teeth recurved. Petals as in the male, their apices entire or minutely serrulate. Ovary ovoid, on a short gynophore, the stigma peltate 3-lobed. Fruit broadly fusiform, 2 to 2.5 in long and 1 in. in diam. at the middle, dirty-yellowish when dry. Seeds compressed, sub-rotund, keeled, with prominent . sharply edged deep pits in the centre and a row of elongate pits round the edges. Modecca cardiophylla, Mast. in Hook. fil. Fl. Br. Ind. II, 602. Modecca cordifolia, Kurz (not of Blume) in Journ. As. Soc. Beng., 1876, II, 132: Masters in Hook. fil. Fl. Br. Ind. II, 602. M. heterophylla, Kurz, (not of Blume) Andam. Report Append. A., 39.

ANDAMAN ISLANDS; Very common. NICOBAR and GREAT COCO ISLANDS; Prain.—DISTRIB. Cambodia, Khasia Hills and Eastern Bengal, tropical Eastern Himalaya.

A species well marked by its deeply cordate leaves much reticulate on the lower surface, widely-spreading cymes and sub-rotund cancellate pitted seeds. Some confusion in nomenclature has arisen from the fact that Kurz, without having seen authentic specimens of Blume's two species *Modecca* cordifolia and *M. heterophylla* referred this plant to both of them. Dr. Masters perpetuated part of Kurz's mistake by accepting his view as to the identity of this Andaman and Nicobar plant with *M. cordifolia*, Blume, whereas the whole of the Andaman material (greatly increased in bulk since he wrote) really belongs to his own species *M. cardiophylla*. This view was first expressed by Dr. D. Prain, Superintendent of the Calcutta Garden in a note on one of the specimens in the Herbarium there.

4. ADENIA POPULIFOLIA, Engl. in Jahrb. XIV, 376, var. PENTAMERA King. A slender and often very extensive climber (often 150 feet) Stems slender, smooth, terete. Leaves thinly coriaceous, oblong-ovate, gradually narrowed to the acute or sub-acute apex, the base slightly cordate; both surfaces smooth, the nerves and reticulations little prominent when dry: main-nerves 5 to 7 pairs, curved, spreading, rather faint; length 3 to 5 in.; breadth 1.75 to 2.5 in.; petiole .75 to 1.25 in., its apex bearing 2 large cup-shaped glands conjoined by their backs. Peduncles shorter than the leaves with 2 slender spreading branches and a single rather stout tendril. Flowers not numerous, on slender unequal pedicels, some of them '75 in. long. MALE FLOWER '2 in. long, narrowly fusiform; the calyx with 5 short oblong blunt lobes. Petals springing from the calyx-tube just below its lobes, and like them but narrower. Anthers 5, broadly linear, the connective slightly produced beyond the apex, shortly sagittate at the base; filaments joined into a tube and inserted into the fundus of the calyx: rudimentay ovary linear. FEMALE FLOWER shorter than the male (only '15 in. long) and not so slender but with similar calyx-lobes and petals. Ovary oblong, crowned by three erect oblong rather large stigmas. Fruit double fusiform, deep red when ripe, 2.5 to 3 in. long and from .75 to 1 in. in

diam. Seeds broadly oblong, compressed, foveolate with a row of short radiating grooves round the edges. Modecca populifolia, Blume Rumphia, 168 t. 50. M. populifolia, Bl.: Masters in Hook fil. Fl. Br. Ind. II, 603 (amongst imperfectly known species).

MALACCA; Maingay (K.D.) 668. PERAK; Scortechini 1609; King's Collector, many Nos.

Blume describes and figures his *Modecca populifolia* plant as tetramerous and as this exactly agrees both with his text and figure, except in being pentamerous, I regard it as a variety. There are in Herb. Calcutta specimeus from Perak without flower or fruit, of what appears to be a 3-lobed form of this.

5. ADENIA ACUMINATA, King. Stems slender, striate. Leaves subcoriaceous, ovate-oblong or rotund-ovate, the base usually narrowed but sometimes sub-cordate always bi-glandular; the apex shortly and abruptly acuminate; the secondary nerves and reticulations distinct on both surfaces when dry but especially on the lower; main-nerves 2 or sometimes 3 pairs, originating from the midrib near its base, all prominent: length 4 to 6 in.; breadth 2 to 4 in.; petiole .75 to 1.35 in. long. Peduncles usually nearly as long as the leaves but sometimes much shorter, bearing a few short many-flowered spreading branches at the apex and often a short tendril. MALE FLOWER narrowly ovoid, '25 to 3 in. long. Calyz leathery with 5 short ovate-lanceolate lobes. Petals thick, oblong, acute, springing from the calyx-tube above the middle. Glands small, lauceolate. Anthers linear, sub-acute, erect, the filaments short. FEMALE FLOWER larger than the males (4 in. long), tubular, swollen in the lower third. Calyx-lobes very short, broad, blunt, incurved. Petals narrowly oblong, sub-acute, incurved. Ovary fusiform. Fruit fusiform, dull, reddish when dry, about 2 in. long and 75 in. in diam. at the middle. Seeds compressed, subrotund, boldly pitted in the centre and with a marginal row of radiating grooves on each side, slightly oblique and pointed at the base. Modecca acuminata, Blume Bijdr. 940; Miq. Fl. Ind. Bat. I, Pt. 1,702. M. singaporeana, Mast. in Hook. fil. Fl. Br. Ind. II, 601 (in part).

PERAK; Scortechini 254, 459, 629; Wray 498, 1745; Ridley 9462, 9632; King's Collector, many numbers. SELANGOR; Ridley 7288 MALACCA; Goodrich 1340.—DISTRIB.; Java, Sumatra, (Beccari P.S. 743).

6. ADENIA SINGAPOREANA, Eugl. in Jahrb. XIV, 376. Stems slender, striate. Leaves subcoriaceous, oblong to ovate-oblong, cuneate and biglandular at the base, the apex sub-acute or shortly and bluntly acuminate; both surfaces smooth, opaque, the lower very pale, the secondary nerves and reticulations very indistinct on both; main-nerves 3 pairs, the lower two pairs bold and ascending, the upper pair less bold and spreading; length 3.5 to 4.5 in.; breadth 1.75 to 2.25 in.; petiole

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<sup>•5</sup> to 1<sup>•5</sup> in. long. Peduncles about as long as the petiole, few-flowered. Male flowers (fide Masters) "<sup>25</sup> in. long, elongate, fusiform. Calyx leathery, shortly 5-lobed; lobes ovate, connivent (? always). Petals thick, leathery, oblong-acute, springing from the calyx-tube just beneath the throat. Corona noue (?). Glands of the disc 5, small, oblong, at the base of the calyx-tube, opposite to its lobes. Stamens 5; anthers sub-sessile, erect, linear; connective long, thread-like. Rudimentary osary fusiform. Fruit 2 in. long, glabrous, fusiform." Seeds compressed, subovoid, obliquely contracted to a short podosperm, the centre boldly tubercled, the edges with a row of broad grooves the tubercles between which on the extreme margin are bold and some of them black. Passiflora singaporeana, Wall. Cat. 1232. Modecca singaporeana, Masters in Hook. fil, Fl. Br. Ind. II, 601.

SINGAPORE; Wallich. JOHORE; King. MALACCA; Maingay (K.D.) 667.—DISTRIE. JAVA.

A species badly represented in collections and misunderstood. It is based on the plant collected by Wallich at Singapore and issued by him under his Cat. No. 1232 and named Passifora singaporeana. With this agree absolutely a plant collected by Mr. Hullett and myself at Jaffaria (in Johore) also some specimens collected by Mr. H. O. Forbes in the Preanger in Java (Herb. Forbes 565). Maingay collected at Malaccasix specimens of a Modecca all of which in Herb. Kew. are named M. singaporeana. In my opinion five of these belong to M. acuminata, Bl. I have seen no flowers of M. singapo eana and the account of them given above is copied verbatim from Masters. The leaves are very opaque and of a dull pale colour beneath, and the nerves are very faint. The fruit is slightly shorter than that of M. acuminata, Bl. of which species this is I fear little more than a form.

### Order LII. BEGONIACELÆ.

Succulent herbs or undershrubs; stem often rhizomatous or tubererous. Leaves alternate (sometimes falsely whorled), more or less unequal-sided, entire, toothed or lobed; stipules 2, free, frequently deciduous. Peduncles axillary, dichotomously cymose, the branches and bracts at their divisions generally opposite. Flowers white rose or yellow, showy, sometimes small, monœcious. MALE: perianth (of the only Indian genus) of 2 outer valvate opposite sepaloid segments, and 2-0 inner smaller segments; stamens indefinite often very many, free or monadelphous, anthers narrowly obovoid. FEMALE: perianth (of the only Indian genus) of 5-2 segments. Ovary inferior (in Hildebrandia half-superior), 2-3-4-celled; placentas vertical, axile (at the time of sestivation), divided or simple; styles 2-4, free or combined at the base, stigmas branched or tortuous; ovules very many. Fruit capsular, more rarely succulent, often winged, variously dehiscing or irregularly breaking up. Seeds very many, minute, globose or narrow-cylindric, testa reticulated: albumen very scanty or 0.—DISTRIB. Species 400 (of which 398 belong to the genus *Begonia*), in all tropical moist countries; not yet met with in Australia.

# 1. BEGONIA, Linn.

Characters of the Order.

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| GROUP I. Capsule 3-celled, with 3 nearly equal narrow<br>vertically oblong wings, dehiscing by 2 oblong valves on<br>each face between the wings: | 1. B. Forbesii.      |
|---------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| Male flowers '2 to '3 in across                                                                                                                   | 2. B. isoptera.      |
| Male flowers 1'5 in. across                                                                                                                       | 3. B. isopteroidea.  |
| GROUP II. Capsule 2-celled, triguetrous, with 3 short un-                                                                                         |                      |
| equal wings, dehiscing irregularly by the breaking up of the                                                                                      |                      |
| fragile faces between the wings; anthers obovoid, often                                                                                           |                      |
| emarginate at the apex :-                                                                                                                         |                      |
| Caulescent ; rootstock tuberous :                                                                                                                 |                      |
| Upper surfaces of leaves with numerous adpressed                                                                                                  |                      |
| white stellate hairs; bracts of inflorescence '05 to '1 in.                                                                                       |                      |
| long, densely adpressed-pubescent; male flowers '2 to                                                                                             |                      |
| 25 in. in diam.; capsules about 3 in. broad                                                                                                       | 4. B. sinuata.       |
| Upper surfaces of leaves scantily adpressed hairy;                                                                                                |                      |
| bracts '35 to '5 in. long, glabrous; male flowers '5 in.                                                                                          |                      |
| and capsules '6 in. across '                                                                                                                      | 5. B. andamensis.    |
| Leaves glabrous                                                                                                                                   | 6. B. debilis.       |
| Acaulescent; rhizome creeping :-                                                                                                                  |                      |
| Leaves rather thick (when dry), rotund-reniform,                                                                                                  |                      |
| deeply cordate the basal lobes overlapping, the nerves                                                                                            |                      |
| beneath and the petioles rusty-tomentose                                                                                                          | 7. B. thaipingensis. |
| Leaves very thin (when dry), obliquely ovate-reniform,                                                                                            |                      |
| quite glabrous except for a few sparse hairs on the                                                                                               |                      |
| under surface of the nerves; petioles glabrous                                                                                                    | 8. B. guttata.       |
| GROUP III. Capsule 2-celled, triquetrous with 3 wings one                                                                                         |                      |
| of which is much elongated transversely so as greatly to                                                                                          |                      |
| exceed the other two, dehiscing by the rupture of the stout                                                                                       |                      |
| membranous faces between the wings :-                                                                                                             | 0 0 7 1 1            |
| Anthers cuueiform-oblong; leaves peltate                                                                                                          | 9. B. Hasskarlii.    |
| Anthers linear-oblong or linear; leaves not peltate :-                                                                                            |                      |
| Leaves not at all or very little oblique even at the base,                                                                                        |                      |
| not cordate; petioles very long:—<br>Leaves with coarse hairs on both surfaces:—                                                                  |                      |
|                                                                                                                                                   | 10. B. Scortechinii. |
| · · · · · ·                                                                                                                                       | 11. B. Kunstleriana. |
| J. 11. 8                                                                                                                                          | and D. Aunstientung. |
| J. 11. O                                                                                                                                          |                      |

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| Leaves glabrous :                                                |                       |
|------------------------------------------------------------------|-----------------------|
| Leaves broadly elliptic-ovate, equal-sided at the base           | 12. B. Herveyana.     |
| Leaves ovate-lanceolate, unequal-sided especially<br>at the base | 13. B. perakensis.    |
| Leaves very oblique, ovate to reniform, obliquely cor-           |                       |
| date at the base :                                               |                       |
| Leaves glabrous even on the nerves :                             |                       |
| Male flowers less than 1 in. across                              | 14. B. paupercula.    |
| Male flowers about 1.5 in. across                                | 15. B. venusta.       |
| Leaves glabrous, but the nerves hairy ; male flower              |                       |
| 2 in. across                                                     | 16. B. megapteroidea. |
| Leaves with a few coarse compressed rusty-pubescent              |                       |
| hairs on both surfaces; nerves beneath, petioles and             |                       |
| also peduncles rusty-pubescent; male flowers '8 in.              |                       |
| across                                                           | 17. B. Maswelliana.   |
| Upper surfaces of leaves papillose and bearing coarse            |                       |
| bairs :                                                          |                       |

Acaulescent; petiole much longer than the lamina 18. B. praeclara. Stems 3 feet high; petiole shorter than the blade 19. B. Lousiana.

1. BEGONIA FORBESH, King n. sp. A small plant a few inches high with densely rusty-villose rhizome. Leaves rotund-ovate shortly apiculate, sometimes blunt, the base slightly cordate, the edges subentire or remotely denticulate; upper surface glabrous: the lower with numerous white scales and a few coarse hairs on the nerves near their bases: main-nerves 9, radiating from the base, inconspicnous; length 1.25 to 2.25 in.; breadth 1 to 2 in.; petiole 1.5 to 3 in.; stipules lanceolate, villous externally, 3 in. long. Peduncles as long as or longer than the leaves, slender, glabrous, bearing a solitary flower at the apex, or 2-branched and bearing 2 to 5 flowers; bracts absent on the lower part of the peduncle, in pairs in its upper part, small, obovate-oblong. Flowers pink, their pedicels red. MALE; sepals 2, oblong, blunt, 15 in. long; petals 2, similar but smaller; stamens numerous; anthers obovate, with emarginate apices, filaments short. FEMALES; perianth of 4 unequal pieces, the outermost rotund-ovate: the inner oblong. Styles 3, thick, the stigmas large, flattened, rotund. Capsule 3-celled, opening on each face; the wings subequal, spreading, triangular, blunt.

PERAK; Wray 2476.—DISTRIB. Sumatra, Forbes 2666.

2. BEGONIA ISOPTERA, Dry. in Smith's Io. 43. Caulescent: three feet high, nearly glabrous; stem and branches slender. Leaves obliquely ovate-oblong or ovate-lanceolate, shortly acuminate, the base cordate, the sides very unequal; edges remotely and usually coarsely dentate; upper surface of leaves quite glabrous, the lower minutely scaly; mainnerves mostly radiating from the base, branched, prominent; length 3.5 to 6 in.; breadth 1.5 to 3 in.; petioles slender, varying from .5 to

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2.25 in. in length: stipules lanceolate or oblong, 75 in. long. Inflorescence leaf-opposed, shorter than the leaves, slender; the female flowers near its base, the male on short branches on its upper half. MALES 2 to 3 in. across; sepals 2, rotund; petals 0; stamens numerous, broadly oblong or obovate, minutely apiculate; filaments short. FEMALE perianth-segments 5. Styles three, bifd, the arms twisted. Capsule 3-celled, about '8 in. long and equally broad, dehiscing by two slits on each face, the three wings equal, narrow, oblong, '25 in. wide. Dry. in Trans. Linn. Soc. I, 160. B. repanda, Bl. Enum. Pl. Jav. I, 97. Diploclinium repandum, Klo. Begon. 72. Begonia Wrayi, Hems. in Journ. Bot. for 1887, 203.

PERAK; Scortechini and King's Collector, many numbers. MALACCA; Hervey. SELANGOR; Ridley 8589. PAHANG; Ridley 2246. NEGRI SEMEA-LAN; Ridley 10028. PENANG; Curtis 7094 -- DISTRIB. Sumatra, Java.

B. bombycina, Bl. (Enum. Pl. Jav. 97) is possibly identical with this; it has been reduced here by De Candolle and part of it is no doubt so reducible. Under B. bombycina however have been distributed specimens of an allied species with larger flowers in short spreading cymes. Which of the two plants Blume intended as his B. bombycina, it is impossible from his short description and in the absence of authentic specimens to determine.

3. BEGONIA ISOPTEROIDEA, King n. sp. Caulescent, 3 feet high, glabrous. Leaves thin, very obliquely ovate-lanceolate acuminate; the base acute on one side of the petiole but with a broad round auricle on the other, the edges remotely lobulate-dentate; lower surface with very minute white scales; main-nerves 7, radiating from the base, rather prominent beneath; length 3.5 to 4.5 in.; breadth 1.2 to 1.5 in.; petioles unequal, 2 to 3.5 in long. Stipules broadly lanceolate, acute, .5 to .75 in. long. Peduncles slender, axillary, about an inch long and bearing about two flowers on long slender pedicels and one sub-sessile. Flowers pink, large. MALES; sepals 2, rotund-oblong, blunt, 75 in. long; petals 2 similar but only 5 in. long; stamens inserted on an elongate anthophore, the anthers quadrate, 2-groved, truncate, only about half as long as the slender filaments. FEMALES nearly as large as the males; style short, thick, divided into 3 slender, bifid spiral spreading branches. Capsules about '75 in. in length and breadth, 3-celled, its wings narrow oblong, thin, membranous, the posterior narrower than the lateral.

PERAK; on Gunong Brumban, elevation 5,000 feet; Wray 1548.

A species in leaves capsules and habit resembling *B. isoptera*, but with much larger flowers.

4. BEGONIA SINUATA, Wall. Cat. 3680. Shortly canlescent (from 2.5 to 12 inches high) the rootstock tuberous. Leaves either broadly

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reniform and blunt, or sometimes with a short broad abrupt apiculus, the basal sinus deep and the edges wavy and minutely denticulate or crenate; or reniform-cordate, gradually tapered to the sub-acute apex, the margins slightly lobulate-dentate, the lobes denticulate, the basal sinus small: length of the reniform over 4 to 6 in.; breadth 5 to 8 in., of the ovate-reniform 1.5 to 3 in.; breadth 1 to 3 in.; petioles of the radical leaves 1 to 3 in.; of the cauline '5 to 2'5 in.; both surfaces with numerous adpressed white stellate hairs, the lower with small oblong white scales also; main-nerves 7 to 11, radiating from the base, prominent on the lower surface; petioles unequal, 5 to 3 in. long, pube-Stipules small, oblong-lanceolate, slightly oblique, blunt, glabscent. Inflorescence 3 to 8 inches long, sparsely stellate-puberulous; the rous. peduncle very sleuder; branches few, short, filiform, few-flowered; bracts minute (05 to 1 in. long) bluntly lanceolate, rather deusely adpressed-pubescent externally, the upper in whorls of three. Flowers small, pink, glabrous. MALES about '2 to '25 in. in diam. : sepals 2, roundish; petals 2, narrower, obovate; stamens about 20, monadelphous; anthers obovoid, connective not produced. FEMALE perianthsegments 5, the inner gradually smaller. Styles 2, combined for half their length, stigmas lunate. Capsule about 3 in. broad and slightly longer, the posterior wing the largest. Seeds ovoid, shining, brown, deeply pitted. A. DC. Prod. XV, Pt. I, 354; Kurz in Journ. As. Soc Beng., 1877, Pt. II, 108; Clarke in Hook. fil. Fl. Br. Ind. II, 650. Diploclinium biloculare, Wight Ic. 1814. Begonia guttata, elongata et subrotunda, Wall. Cat. 3671 B (not A), 6291, 6293.

PENANG; Wallich; Phillips; King's Collector 2269, 4860; Curtis 390, 481, 3098; Ridley 9229. MALACCA; Maingay (K.D.) 674. PERAK; King's Collector 4971.—DISTRIB. BURMA; Griffith, Parish.

5. BEGONIA ANDAMENSIS, Parish ex Clarke in Hook. fil. Fl. Br. Ind. II, 650. Like the reniform-leaved form of *B. sinuata*, but the hairs on the surfaces of the leaves scanty: the inflorescence usually longer and its peduncle and branches much stonter; the bracts glabrous, longer (35 to 5 in.) and blunter and the male flowers (5 in. across) and capsules (6 in. across) longer and more numerous than those of *B. sinuata*.

## ANDAMAN ISLANDS; Parish; King's Collector.-DISTRIB. Burma.

This ought probably to be regarded as a variety of *B. sinuata*. Actual specimens of the two look more different than written descriptions lead one to suppose; I therefore retain this as a species.

6. BEGONIA DEBILIS, King n. sp. A slender weak herb, about 6 to 8 inches high, caulescent. Leaves thin, narrowly reniform, blunt or subacute; the base unequal, rounded at both sides but one auriculate and

much longer; edges sub-entire or slightly remotely and obscurely crenate; breadth 1.5 to 3 in.; length (from base of largest lobe to apex) 3.5 to 7 in ; upper surface glabrous, the lower minutely scaly; mainnerves 7, radiating from the base, some of them branching, rather prominent below; petioles 1 to 3 in. long. Inflorescence axillary or terminal, sleuder, longer than the leaves, with a few lax filiform dichotomous spreading few-flowered branches, bracts in pairs, ovate-lanceolate, 1 to 15 in. long. Flowers pure white, the stamens yellow. MALE ·35 in. across; sepals 2, oblong-ovate, blunt : petals 2, similar but smaller; stamens in a globular mass; anthers obovate, short with broad emarginate inappendiculate apices. FEMALE perianth of 5 unequal obliquely oblong pieces; styles united into a short column, above divided into numerous crowded awns. Capsule '75 in. broad (to the end of the wings), and '4 in. from base to apex, glabrous, 2-celled: the 2 lateral wings triangular, acute, the posterior wing oblong, tapering a little to the blunt apex, more than twice as long as the lateral.

PERAK; King's Collector 8289.

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A species allied to B. varians, A. DC., but with more entire leaves.

7. BEGONIA THAIPINGENSIS, King n. sp. Rhizome long, creeping, rooting at intervals, wire-like, rusty-villous. Leaves rotund-reniform, the edges minutely and rather remotely dentate, the basal sinus mostly obliterated by the overlapping of the auricles; both surfaces scaly the lower more distinctly so and rusty tomentose on the 6 or 7 radiating sub-prominent nerves; length 1.25 to 2 in.; breadth 1.5 to 2.25 in.; petioles unequal, 1 to 4 in. long, densely rusty-tomentose. Peduncles 4 to 9 in. long, sleader, sparsely rusty-villous, bearing one or two remote pairs of small lanceolate bracts and near the apex 3 to 5 slenderly pedicellate pink flowers on slender branches. MALE flowers ; sepals 2, sub-rotund, 15 in. long; petals 2, smaller, oblong; stamens numerous; anthers obovate, the apex blunt and emarginate, the filaments short. FEMALE perianth of 5 unequal pieces, the largest most external: style short, thick, with 2 stout arms and short thick twisted stigmas. *Cupsule* 2-celled, 5 in. broad (to the ends of the wings); all the wings triangular, sub-equal.

PERAK; Scortechini 1479; Wray 1774; King's Collector 2523, 8511.

A species allied to *B. sinuata*, Wall., but differing by the creeping rhizome, non-apiculate leaves, rusty-tomentose petioles and peduncles.

8. BEGONIA GUTTATA, Wall. Cat. 3671 A. Stem succulent, short. weak, bearing about two thin obliquely ovate-reniform glabrous nearly entire *leaves* with oblique cordate bases, and subacute apices; the nerves about 5, radiating from the base, prominent, sparsely hairy;

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4 to 7 in. long and 2 to 4.5 in. broad; petioles 1.5 to 4 in. Peduncles varying in length from 1 to 2 in., slender, glabrous, bearing a few flowers near the apex. MALE flower; sepals 2, rotund; petals 2, narrowly oblong; stamens about 50, monadelphous; anthers obovoid. FEMALE; perianth-segments 5, gradually smaller inwards: styles 2, with two twisted branches. Capsule '4 in. long and '75 in. broad to the ends of the wings, the smaller wings very narrow; the posterior one broad, descending. A. DC., Prod. XV, Pt. I, 352; Clarke in Hook. fil. Fl. Br. Ind. II, 648.

PEBAK; Scortechini 571. MALACCA; Maingay (Kew Distrib.) 675. PENANG; Wallich. SELANGOR; Ridley 7289.

9. BEGONIA HASSEARLII, Zoll. et Mor. Syst. Verz. Zoll. 31 (not of Miq.) All parts glabrous. Stem a creeping rhizome. Leaves rotundovate, shortly and abruptly candate-acuminate, peltate, the edges wavy but entire; both surfaces glabrous, the upper pitted when dry, the lower with sub-rotund scales; main-nerves about ten, radiating from the insertion of the petiole, not very prominent; length 3.5 to 5.5 in.; breadth 2.25 to 3.75 in.; petiole attached to the leaf about .75 to 1.25 in. from its lower edge; stipules short, lanecolate. Peduncle usually longer than the leaves (often twice as long), about as thick as the petioles, bearing a few slender branches near the apex, ebracteate. Flowers small, white tipped with red. MALE 2 in. broad; sepals 2, reniform, the margins thick. Stamens numerous, cuneiform-oblong, their apices emarginate; filaments very short, free. FEMALE, sepals 2, with vertical veins, reniform; style short, thick, with 4 short branches; stigmas 4, much lobulate. Uapsule 4-celled, 6 in. long, the lateral wings very narrow; the posterior broad slightly narrowed to the blunt apex, 5 in. long : seeds minute, ovoid, tapering to one end, brown, shining, pitted. B. peltata, Hassk. in Hoev. et De Vriese, Tijdschr. X (1843) 133. Metscherlicia coriacea, Klotzsch in Abh. Akad. Berl. (1855) 74; Mig. Fl. Ind. Bat. I, Pt. I, 696. B. coriacea, Hassk. Pl. Jav. Bar. 209; B. hernandiaefolia, Hook. (not of others) Bot. Mag. t. 4676.

PEBAK; Scortechini 1607; King's Collector 4427, 8245; Ridley 9689. PAHANG; Ridley 2442.—DISTRIB. JAVA, Zollinger 1613.

This is one of three species to which the specific name *peltata* has been given. That name must however be reserved for the Brazilian species to which it was first applied by Otto & Dietr. (Allg. Gartenz. IX (1841) 58). The MSS. name B. Hasskarliana was given by Miquel to a species near B. cosspitosa which he confused with Zollinger's No. 1613 (the type of the species above described), and this inaccuracy was perpetuated by Miquel on p. 1091 of his Fl. Ind. Bat. I, Pt. I, where he describes Diploclinium Hasskarlianum.

10. BEGONIA SCORTECHINII, King, n. sp. Rhizome creeping, short, scaly.

Leaves on very long glabrous petioles, narrowly lanceolate, attenuate to the acuminate apex, and to the rounded or acute nearly equal-sided base; the edges dentate-ciliate; both surfaces with numerous scattered coarse subulate spreading hairs compressed at their bases, the lower also minutely scaly; main-nerves pinnate, 3 or 4 pairs, then ascending; length 2.75 to 4 in.; breadth .5 to 1 in.; petioles 5 to 7 in. Peduncles axillary, somewhat shorter than the leaves, glabrous, bearing at the apex 2 few-flowered branches and a few rather long bracts. Flowers white, tinged with pink and green. MALE: sepals ovate, obtuse, .75 in. long; petals narrower but nearly as long. Stamens numerous, in a short column; anthers linear-colong, the apical appendage obtuse; filaments short. Female with perianth-segments similar to the male (fide Scortechini) but 5. Ovary glabrous, 2-celled; styles free, 2 to 4-fid. Oapsule .75 in. broad (including the wings) the lateral wings narrow, oblong, the posterior much larger (fide Scortechini).

PEBAK; Scortechini 1845; King's Collector 7227.

I have seen no ripe capsules, and the above description of them is taken from Scortechini's field-note. The species is readily distinguishable by its very narrow equal-sided coarsely hairy leaves. A drawing of this, sent to Herb. Kew from Penang by Mr. C. Curtis, represents the leaf-petioles as not more than one inch long.

11. BEGONIA KUNSTLERIANA, King n. sp. Rhizome creeping, very scaly. Leaves ovate-lanceolate to lanceolate, often but not always unequal-sided, much acuminate; the base cuneate usually oblique; edges ciliate-servate, the teeth slightly unequal; both surfaces with coarse spreading hairs with dilated flattened bases; the lower with minute white scales also; main-nerves about 3 pairs, pinnate, densely rufescent villous like the petioles; length 5 to 7.5 in.; breadth 1.75 to 2.5 in.; petiole from half as long to nearly as long as the blade. Peduncles longer than the petioles and more slender, glabrons, 2- to 4-flowered at the apex. Flowers large, white, tinged with red. MALE; sepals 2, elliptic, obtuse, 1 in. long and 5 in. broad, vertically veined; petals similar but not half so large. Stamens numerous, linear-oblong, bluntly apiculate. FEMALE perianth of 5 oblong blunt segments; styles 2, each with two short twisted branches. Capsule (to the end of the posterior wing) 1 in. broad: the lateral wings short, narrow; the posterior elongate not tapered to the apex, 2-celled. Seeds ellipsoid, shining, brown, pitted.

PEBAK; King's Collector 7194; Scortechini; Ridley 9651.

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This resembles B. Scortechinii, but has larger leaves and shorter petioles which are densely villous.

12. BEGONIA HERVEYANA, King n. sp. Glabrous except for a few

hairs on the nerves on the lower surface of the leaves: rhizome creeping, thin. Leaves broadly elliptic-ovate, shortly acuminate, slightly narrowed to the rounded almost equal-sided base; the edges slightly undulate, very indistinctly serrate; upper surface glabrous, lower very minutely scaly; nerves pinnate, about 6 pairs, ascending, branching; length 5 to 9 in.; breadth 3 to 4.5 in.; petioles much longer than the leaves, glabrous; stipules lanceolate, inconspicuous. Peduncles 5 to 10 in. long, slender, bearing near the apex 2 or 3 branches with few shortly pedicellate flowers. MALE flowers; sepals 2, ovate-subrotund; petals 2, much smaller, oblong, blunt; stamens numerous, arranged in a cone, linear, with a blunt apical appendage, the filaments short. FEMALE perianth of 5 subrotund pieces. Capsule 1 in. broad and about half as much from base to apex, imperfectly 4-celled: lateral wings narrow oblong; the posterior wing ovate, blunt, about 65 in. long.

MALACCA; Hervey; Derry.

This is a very distinct species resembling in the shape of its leaves no Asiatic Begonia that I have seen, except on unnamed species from Tonkin (No. 3763 of Herb. Balansa).

13. BEGONIA PERAKENSIS, King n. sp. *Rhizome* slender, creeping. Leaves ovate-lanceolate, slightly unequal-sided, acuminate; the base broad, rounded or very slightly emarginate or oblique, the edges obscurely and remotely dentate, or sub-entire; both surfaces glabrous, the lower minutely scaly; main-nerves pinnate, 4 or 5 pairs, ascending; length 3.5 to 5.5 in.; breadth 1.5 to 2.25 in.; petiole 2.5 to 5 in.; slender, glabrous. *Peduncles* usually longer than the leaves (at least when in fruit), 4-angled, glabrous, few-flowered. *Flowers* whitish tinged with pink, or pink. MALE; sepals rotund-ovate, 4 in. long. *Petals* 2, oblong and much smaller. Stamens numerous, linear with short blunt apical appendages and short filaments. FEMALE perianth of 5 (?) segments. *Capsule* (ripe) 1.2 in. broad (to end of posterior wing), and 5 in. from base to apex, 2-celled; the lateral wings oblong, narrow; the posterior oblong, blunt, slightly oblique, 35 in. broad; seeds small, ellipsoid, pitted, shining.

PERAK; King's Collector 10338, 10506, 10951.

Specimens of a species closely resembling this, but insufficient for accurate determination, have been collected in Selangor by Mr. Bidley (Herb. Ridley 8590).

14. BEGONIA PAUPEBCULA, King n. sp. *Rhizome* creeping, acaulescent, everywhere glabrous. *Leaves* ovate, very unequal-sided and very oblique at the base, or ovate-lanceolate, slightly unequal-sided and little oblique at the base; the apex always acuminate, the edges slightly sinuate-lobed, obscurely dentate; both surfaces glabrous: main-nerves 5 to 7, radiating from the base, prominent below, midrib with a few lateral nerves, length 3.5 to 5 in.; breadth 1.25 to 3.5 in.; petioles varying in length from 2.5 to 7 in., slender, 2-to 3-flowered. Flowers white, tinged with red. MALES; sepals 2, elliptic-oblong, 4 in. long; petals 0. Stamens linear-oblong, shortly and bluntly apiculate: filaments short. FEMALE; the perianth of 5 very unequal lobes, the outermost larger than the sepals of the male. Capsules '6 in. long and 1 in. broad, 2celled; the 2 lateral wings sub-elliptic, oblique, '3 in. broad; the posterior wing oblong, blunt, '6 to '7 in long and '35 in. broad.

PERAK; King's Collector 5952.

This has leaves resembling those of *B. borneensis*, but the flowers are fewer and larger. Beccari's Sumatra specimens (P.S. 857), in fruit only, appear to belong to this species.

15. BEGONIA VENUSTA, King n. sp. *Rhizome* slender, creeping; whole plant glabrons. *Leaves* reniformly ovate, shortly acuminate, the basal sinus deep; the edges sub-entire or remotely and minutely denticulate; both surfaces smooth, shining : main-nerves 7, radiating from the baseslender; length 3 to 5.5 in.; breadth 2 to 3.5 in.; petioles unequal, slender, from 6 to 12 in. in length. *Peduncles* 3.5 to 6 in. long, bearing about 3 pedunculate pinkish-white flowers near the apex. MALE; sepals 2, ovate-rotund, blunt, 75 in. long. *Petals* 2, somewhat larger. *Stamens* narrowly oblong, with a large apiculus; filaments unequal, the inner ones long, the outer short. FEMALES smaller than the male, the *perianth* of 5 unequal broad blunt segments; styles very short, with numerous broad depressed lobules. *Capsule* 3 in. long and 1.15 in. broad (to the ends of the wings); lateral wings more than half as long as the posterior, broadly triangular, blunt; posterior wing oblong, blunt, .7 in. long.

PERAK; at an elevation of about 6,000 ft., Wray 1598.

The leaves are not unlike those of *B. paupercula* and *B. borneensis* but the flowers are large and handsome.

16. BEGONIA MEGAPTEROIDEA, King n. sp. *Rhizome* as thick as a swan-quill, creeping on rocks. *Leaves* broadly and very obliquely ovate, acuminate; both sides of the base rounded but very unequal, the sinus between them wide, the edges remotely and minutely dentate, upper surface glabrous; the lower also glabrous except the rusty-pubescent nerves which are also scaly near the base : main-nerves about 8, radiating from the base, the larger branched and all rather prominent; length (from apex of petiole to apex of blade) 4 to 5 in.; breadth 4 to 5 in.; petiole 12 to 16 in. long, glabrous. *Peduncles* from half as long to nearly as long as the leaves, glabrous, ebracteate below the flowers. MALE flowers: *sepals* rotund-ovate, very obtuse, 1 in. long and '6 to '7 in. broad; *petals* much smaller, elliptic: *stamens* numerous, in a conical

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mass on a short thick anthophore; anthers oblong, bluntly apiculate, filaments varying in length (the inner the longest). FEMALE perianth of 5 unequal pieces: styles 2, rather long, combined at the base. Cupsule not seen.

PERAK; collected at an elevation of 5,000 ft., Wray 1450, 1573.

Specimens of this plant are rather scanty. They resemble *B. megaptera*, but are not caulescent like that species. In the Calcutta Herbarium there is, under the name *Diploclinium tuberosum*, Miq., a specimen collected by Kurs in Western Java which apparently belongs to this species. There are also two plants from Sumatra collected by Forbes (Herb. Forbes 2333a and 2255) which appear to belong to this. The genus *Diploclinium* is inseparable from *Begonia* and the specific name *tuberosa* is pre-occupied in the latter by a species described by Lamack from the Moluccas which has a rounded tuberous root.

BEGONIA MAXWELLIANA, King n. sp. Rhizome as thick as a 17. swan-quill, bearing many broadly lanceolate scales. Leaves broadly and obliquely ovate to ovate-rotund, more or less acuminate, the edges minutely ciliate-denticulate, the base very oblique, one side of it rounded the other rounded-auriculate, the sinus wide; both surfaces with a few coarse compressed rusty hairs, most numerous on the nerves near the base; the lower surface with minute white scales; main-nerves 7 to 9, radiating from the base, prominent; length 5 to 6 in.; breadth 4 to 7 in.; petioles 4 to 10 in. long, compresed (when dry) like the peduncles and like them rusty-pubescent. Peduncles unequal, those bearing only male flowers often shorter than the petioles; those bearing female and male, or females only often longer than the petioles; all ebracteate below the inflorescence, dichotomously branched and few-flowered at the apex; the bracts short, broad. MALE flowers densely clustered; sepals 2, oblong-ovate, blunt, '4 in. long, puberulous outside ; petals 2, similar, but much smaller. Stamens numerous, without anthophore ; authers linear, bluntly apiculate, slightly shorter than the filaments. FEMALE perianth of 5 unequal pieces diminishing in size inwards; styles 2, short, much lobulate. Oapsule 2-celled, 1.4 in. broad (to the ends of the wings) and •6 in from base to apex; the 2 lateral wings sub-quadrate, obtuse; the posterior oblong, blunt, more than three times as long as the lateral.

PERAK; Maxwell's Hill, at elevation of 3,000 feet, Wray 119, 2199; Scortechini 1607, 1798; King's Collector 2038.—DISTRIB. Sumatra, Forbes 3119a.

The flowers of this are white tinged with pink and the leaves green, the nerves beneath being red. This resembles B. *megapteroidea*, King, but the flowers are smaller, and the leaves and inflorescence are not glabrous as in that species.

18. BRGONIA PRÆCLARA, King n. sp. *Rhizome* creeping, very scaly. Leaves obliquely ovate, acuminate, the base rounded on one side of the

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petiole and on the other expanding into a broad rounded auricle, the edges minutely dentate, rarely with small lobes besides : upper surface with numerous conical papillæ each bearing a coarse curved hair flattened at the base; under surface with a few scattered flattened hairs especially on the nerves; main-nerves 7, radiating from the base, prominent beneath; length 3.5 to 5.5 in.; breadth 2.5 to 3.5 in.; petioles unequal 3 to 6 in. long, with a few flexuose hairs near the apex. Peduncles longer than the petioles, slender, glabrous, 1- to 3-flowered. Flowers on rather long slender pedicels, pink. MALES; sepals 2, narrowly oblong-ovate, obtuse, '8 in. long; petals 2, narrowly oblong, blunt, 5 in. long; stamens linear-oblong, apiculate, the filaments unequal the central the largest. FEMALE perianth unknown; styles 2, short, 2-branched, branches divided into many flat twisted lobes. Capsule 5 in. long and about 1.5 in. broad (to the ends of the wings); the lateral wings quadrate-ovate, obtuse, about 4 in. long; the posterior oblong, blunt, 1 in. long and '4 in. broad.

**PERAK**; at elevations of from 3,000 to 6,700 feet, Wray 318, 349, 427; King's Collector 8077.

The upper surface of the leaves is dark green, the nerves being coloured; the under surface is red of various tints and the flower-stalks are pale crimson.

19. BEGONIA LOWIANA, King n. sp. Caulescent; 3 feet high; stems and branches covered with coarse flexuose glandular hairs. Leaves mostly very obliquely reniform; but some of the cauline ovate and nearly equal-sided acute, the basal sinus deep, the edges with a few very shallow lobes closely and rather minutely dentate-servate and shortly ciliate; both surfaces coarsely rusty-pubescent, the hairs flexuose compressed and with dilated bases, the lower also with small white scales; main-nerves about 9, radiating from the base, prominent and densely villous; length 3 to 4.5 in.; breadth 4 to 7 in.; petioles unequal, stoat, villous like the under surface of the ribs and midrib, from 4 in. long in the upper leaves, to 4 in. long in the lower. Cymes fewflowered, leaf-opposed and terminal, shorter than the leaves when in flower, much larger when in fruit; bracts ovate-lanceolate, opposite, ciliate. Flowers pink or white, pedicellate. MALE about '75 in. across; sepals 2, ovate-oblong, sub-acute, 5 in. long; petals 2, oblong, much smaller. Stamens unmerous, oblong, blunt, without apical appendages; filaments short. FEMALE, the perianth of 5 pieces decreasing in size inwards; styles 2, deeply bifid and spiral. Capsules .65 in. long and twice as broad to the end of the wings; lateral wings very narrow (about '15 in. broad), the posterior oblique, broadly ovate, blunt, '9 in. long and 8 in, broad.

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PERAK; at an elevation of 7,000 feet on Gunong Brumber Pahang, Wray 1567; also on Gunong Batu Puleb, Wray 316.

This resembles the Indian species *B. Thomsonii*, DC., but differs in being caulescent, in having shorter hairs on leaves and petioles, and in the posterior wing of the capsule being much larger. I have named the species after Sir Hugh Low, late British resident at Malacca, to commemorate his many services towards the botanical exploration of the Province of Perak.

## Order LIV. FICOIDEÆ.

Herbs. Leaves simple, often fleshy, usually opposite or whorled; stipules 0 or scarious. Flowers usually in cymes or clusters, rarely solitary, regular, hermaphrodite rarely polygamous. Calyz of 4-5 segments, united into a tube or nearly distinct, free from the ovary in the Indian genera, often persistent. Petals usually wanting, when present small. Stamens perigynous or hypogynous, definite or indefinite; staminodes sometimes present. Ovary free (except in Mesembryanthemum), 2-5-celled, syncarpous (except in Gisekia); styles as many as the carpels: ovules numerous in each carpel and axile or solitary and basal. Fruit usually capsular, splitting dorsally or circumsciss, more rarely the carpels separate into cocci. Seeds many or 1 in each carpel, usually reniform, compressed; embryo curved or annular, surrounding the farinaceous albumen, radicle next the hilum.—DISTRIB. Species 450, chiefly African, a few are scattered through most tropical and subtropical regions.

| Capsule with circumscissile dehiscence | ••• | ••• | 1. SESUVIUM. |
|----------------------------------------|-----|-----|--------------|
| Capsule with dorsal dehiscence         | ••• | ••• | 2. MOLLUGO.  |

#### 1. SESUVIUM, Linn.

Succulent branching herbs. Leaves opposite, fleshy; stipules 0. Flowers axillary, sessile or peduncled, solitary, rarely in cymes. Calyxtube short; lobes 5, triangular-lanceolate, persistent, often coloured. Petals 0. Stamens many or 5, inserted round the summit of the calyxtube. Ovary free, 3-5-celled; styles 3-5; ovules many, axile. Capsule ovate-oblong, membranous, 3-5-celled, circumsciss. Seeds many in each cell, reniform; embryo annular.—DISTRIB. Species 4, littoral in warm climates.

SESUVIUM PORTULACASTRUM, Linn. Syst. ed. 10, 1058. Creeping and rooting in the sand, glabrous. Leaves linear-spathulate almost cylindric, sometimes sub-obovate: gradually narrowed into a short petiole with dilated scariously margined base. Flowers solitary, axillary, their pedicels '25 in. long. Calyz rose-coloured inside. Stamens 15 to 40, free or almost free. Styles 3 to 5. Capsule '2 in. across. Seeds black, shining, smooth, not numerous. Roxb. Fl. Ind. II, 509; Dalz. & Gibs. Bomb.

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Fl. 15; Kurz in Journ. As. Soc. Beng. 1877, Pt. II, 110: Clarke in Hook. fil. Fl. Br. Ind. II, 659. S. repens, Willd. Enum. p. 511; DC. Prod. III, 453: W. & A. Prod. Fl. Pen. Ind. 361; Wight in Hook. Comp. Bot. Mag. II, 71, t. 23; Miq. Fl. Ind. Bat. I, Pt. I, 1060. Psammanthe marina, Hance in Walp. Ann. II, 660. Crithmum indicum, Rumph. Herb. Amb. VI, t. 72, fig. 1.

On the sea shores in the Andamans and the other Provinces.— DISTRIB. B. India, Malayan Archipelago.

## 2. MOLLUGO, Linn.

Herbs, branched, often dichotomous. Leaves often falsely whorled, or alternate, or all radical, from linear to obovate, entire; stipules fugacious. Flowers axillary, sessile or pedicelled, clustered or in panicles or racemes, small, greenish; bracts inconspicuous. Sepals 5, persistent. Petals 0; staminodes 0 or small in the same species. Stamens 5-3, rarely many. Ovary free, globose or ellipsoid, 3-5-celled; styles 3-5, linear or very small; ovules 'many, axile. Capsule membranous, sheathed by the sepals, 3-5-celled, dehiscing dorsally. Seeds several in each cell, rarely 1, reniform, appendaged or not at the hilum; embryo annular.—DISTRIB. Species 12, tropical and subtropical.

MOLLUGO PENTAPHYLLA, Linn. Spec. Plantar. ed. 1 (1753), 89. A few inches high, glabrous; stems much-branched, leafy, varying from oblong-lanceolate, lanceolate-acute to obovate-obtuse, contracted at the base, subsessile or sessile, from less than 5 in. to more than 2 in. in length. Panicles compound, terminal, many times longer than the leaves. Sepals elliptic or rotund, blunt. Stamens 3 to 5, short; filaments rather broad, compressed. Capsule globose, as long as the sepals, thin-walled, many seeded. Seeds dark-brown, tubercled; embryo curved. W. & A. Prodr. 44; Dalz. & Gibs. Bomb. Fl. 16; Kurz in Journ. As. Soc. 1877, Part II, 111. M. triphylla, Lour. Fl. Cochine. 79; DC. Prodr. I, 392; Roxb. Hort. Beng. 9, Fl. Ind. I, 360; Wall. Cat. 651; W. & A. Prodr. 44. M. Linkii, Seringe in DC. l.c. M. stricta, Linn. Sp. Pl. ed. II, 131; DC. Prodr. I, 391; Roxb. l.c.; Wall. Cat. 650; W. & A. Prodr. 44; Dalz. & Gibs. l.c.; Clarke in Hook. fil. Fl. Br. Ind. II, 663: Pharnaceum strictum, triphyllum and pentaphyllum, Spreng. Syst. I, 949.—Rheede Hort. Mal. x. t. 26.

In all the Provinces, near cultivated places.—DISTRIB. General throughout S. E. Asia.

## Order LV. UMBELLIFERÆ.

Herbs (rarely in non-Indian species shrubs or trees). Leaves alternate, usually divided or dissected, sometimes simple, petiole generally

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sheathing at the base; stipules 0. Flowers hermaphrodite or polygamous, in compound umbels (simple in Hydrocotyle and Bupleurum). exterior of the umbel sometimes radiant; umbels with involucriform bracts at the base of the general one and bracteoles at the base of the partial ones (umbellules). Calyx-tube adnate to the ovary, limb 0 or 5-toothed. Petals 5, epigynous, often unequal, and with a median fold on the face, plane or emarginate or 2-lobed with the apex inflexed; imbricated in bud, in Hydrocotyle sometimes valvate. Stamens 5, epigynous. Ovary inferior, 2-celled, disc 2-lobed; styles 2, stigmas capitellate; ovules 1 in each cell, pendulous. Fruit of 2 indehiscent dorsally or laterally compressed carpels, separated by a commissure; carpels each attached to and often pendulous from a slender often forked axis (carpophore), with 5 primary ridges (1 dorsal, 2 marginal and 2 intermediate) and often 4 secondary ones intercalated between these; pericarp often traversed by oil-canals (vittæ). Seed 1 in each carpel, pendulous, albumen cartilaginous; embryo small, next the hilum, radicle superior. -- DISTRIB. Species about 1,500, mainly in Europe, North Africa, West Central and North Asia; a few are North American, tropical, and natives of the Southern Hemisphere.

| Creeping unarmed herb | 8  | ••• | ••• | ••• | 1. | HYDROCOTYLE. |
|-----------------------|----|-----|-----|-----|----|--------------|
| Erect spinous herbs . | •• | ••• | ••• | ••• | 2. | ERYNGIUM.    |

## 1. HYDROCOTYLE, Linn.

Prostrate herbs, rooting at the nodes. Leaves (in the Indian species) cordate or hastate, not peltate, round or 5-9-gonal, subentire or palmately lobed, palmate-nerved, long-petioled; stipules small, scarious. Umbels (in the Indian species) simple, small; bracts small or 0; flowers white, sometimes unisexual. Calyx-teeth 0 or minute. Petals entire, valvate or imbricate. Fruit laterally compressed, commissure narrow; carpels laterally compressed or sub-pentagonal; lateral primary ridges concealed within the commissure, or distant therefrom and prominent; vittee 0, or most slender, obscure; carpophore 0. Seed laterally compressed.—DISTRIB. Species 70; in wet places in tropical and temperate regions, more numerous in the Southern Hemisphere.

 Petals acute, valvate; fruit with no secondary ridges;

 pericarp thin
 ...
 ...
 1. H. javanica.

 Petals obtuse, imbricate; fruit with prominent secondary

 ridges, the pericarp thickened
 ...
 ...
 2. H. asiatica.

1. HYDROCOTYLE JAVANICA, Thunb. Dissert. Hydrocot. n. 17, t. 2: ed. Pers. II, 415, t. 2. Leaves reniform, 5-6-lobed, the lobes irregularly crenate, sometimes sub-entire, 1 to 3 in. broad. Peduncles long, slender, often clustered. Petals acute, valvate. Fruit much compressed, the

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secondary ridges absent; pericarp thin, blackish. DC. Prodr. IV. 67;
Miq. Fl. Ind. Bat. I. Pt. I, 734; Kurz in Journ. As. Soc. 1877, Pt. II-113; Clarke in Hook fil. Fl. Br. Ind. II, 667. H. hispida, Don Prodr. 183. H. nepalensis, Hook. Exot. Fl. t. 30; Wall. Cat. 561; DC. l.c. 65;
Miq. l.c. 735. H. zeylanica, DC. l.c. 67; W. & A. Prodr. 366; Miq.
l.c. 734. H. hirsuta, Blume Bijd. 884. H. polycephala, W. & A. Prodr. 366; Wight. Ic. t. 1003. H. hirta, R. Br. var. acutiloba, F. Muell.; Beuth. Fl. Austral. III. 340. H. Heyneana, Wall. Cat. 563. H. strigosa, Ham. in Wall. Cat. 7219.

PERAK; and probably in all the other provinces except the Andaman and Nicobar Islands.—DISTRIB. The Malay Archipelago, Australia, Philippines.

2. HYDROCOTYLE ASIATICA, Linn. Sp. Pl. 234. Leaves rotund-reniform, the margins not lobed but uniformly crenate or dentate, sometimes sub-entire, 5 to 2 in. broad. Peduncles short, often 2 or 3 together. Petals obtuse, imbricate. Fruit compressed, secondary ridges prominent, pericarp thickened. Roxb. Hort. Beng. 31: Fl. Ind. II, 88; Wall. Cat. 560; DC. Prodr. IV, 62; W. & A. Prodr. 366; Wight Ic. t. 565; Dalz. & Gibs. Bomb. Fl. 105; Kurz in Journ. As. Soc. 1877, Pt. II, 113; Clarke in Hook. fil. Fl. Br. Ind. II, 669. H. Wightiana, Wall. Cat. 7220. H. lurida, Hance in Walp. Ann. II, 690.—Rheede Hort. Mal. X. t. 46.

ANDAMAN ISLANDS; PERAK.—DISTRIB. Tropical and sub-tropical regions.

## 2. ERYNGIUM, Linn.

Spinescent, glabrous, erect, perennial herbs (the Indian species). Leaves spinous-toothed, entire lobed or dissected. Flowers in simple heads, each bracteolate; bracts whorled, spinulose (in Indian species). Calyx-tube covered with ascending hyaline scales; teeth rigid, acute. Petals whitish, narrow, erect, emarginate, scarcely imbricate. Fruit ellipsoid, nearly cylindric: carpels dorsally subcompressed, subconcave on the inner face; primary ridges obtuse not prominent, secondary 0; vittee in the primary ridges inconspicuous or 0, with some very slender scattered in the endocarp: carpophore 0. Seed semi-terete, dorsally subcompressed, subconcave on the inner face.—DISTEIB. Species 100, temperate and tropical; plentiful in Western Asia.

ERYNGIUM FETIDUM, Linn. Sp. Pl. 232, (in part.) Erect, unbranched below, dichotomously branched above. Leaves radical, oblong-oblanceolate, coarsely serrate, glabrous, 4 to 9 in. long and not more than 1 in. broad. Bracts of inflorescence all spinous-toothed; the lower deeply lobed; the upper smaller (about 1 in. long), lanceolate, not

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lobed, whorled. *Flowers* in dense cylindric spikes, less than 1 in. long DC. Prodr. IV, 94.

SINGAPORE: King's Collector 333.

## Order LVII. CORNACEÆ.

Shrubs or trees. Leaves opposite or alternate, more or less coriaceous, usually petiolate, entire, rarely serrate or lobed, often unequal at the base, exstipulate. Flowers usually small, regular, hermaphrodite or unisexual, in axillary or terminal cymes, panicles or capitules. Calyx-tube adherent to the ovary; the limb truncate or 4-5-toothed or lobed, valvate or imbricate, persistent at the apex of the fruit. Petals 4.5, sometimes as many as 20, or none, valvate or imbricate. Stamens inserted with the petals and equal to them in number, rarely 2 or 3 times as many. Ovary inferior, 1-4-celled, crowned by a large fleshy or rarely small disc. Style single, long or short; stigma truncate, capitate or pyramidal, sometimes lobed. Ovules solitary in each cell (rarely 2), pendulous from the apex. Fruit baccate, (the pulp often scanty), usually 1-celled, sometimes as many as 4-celled. Seed oblong, pendulous, with copious fleshy albumen; embryo axile minute or often large with flat leafy cotyledons.-DISTRIB. Species about 90, widely scattered but most abundant in the temperate regions of the Northern Hemisphere.

| Flowers hermaphrodite :—                                 |              |  |  |  |  |  |  |
|----------------------------------------------------------|--------------|--|--|--|--|--|--|
| Petals not larger than the lobes of the calyx; anthers   |              |  |  |  |  |  |  |
| short, ovate and cordate; style short                    | 1. MABTIXIA. |  |  |  |  |  |  |
| Petals much longer than the lobes of the calyx ; anthers |              |  |  |  |  |  |  |
| long, linear; style elongate                             | 2. ALANGIUM. |  |  |  |  |  |  |
| Flowers unisexual                                        | 3. NYSBA.    |  |  |  |  |  |  |

#### 1. MASTIXIA, Blume.

Trees, young parts more or less pubescent. Leaves alternate or opposite, petioled, entire. Flowers hermaphrodite, often 2-bracteolate, small, in terminal many-flowered cymose panicles; bracts small or lengthened, pedicels short or 0, jointed under the flower. Calyx-tube campanulate, pubescent or silky; limb 5-4-toothed. Petals 5-4, ovate, leathery, valvate, pubescent, silky. Stamens 5-4; anthers cordate-oblong. Ovary 1-celled; disc fleshy; style cylindric, simple; ovule 1, pendulous from one side of the cell very near its summit. Drupe ellipsoid or ovoid, crowned by the calyx-teeth or a scar; putamen grooved down one face; endocarp protruded inwards down one side. Seed ellipsoid; albumen fleshy; embryo small, radicle elongate, cotyledons thin, elliptic.-DISTRIB. Species 18; S. India and Malaya. Leaves alternate; bracts of the inflorescence dimorphous 1. M. bracteata. Leaves alternate or opposite :---

| Bracts of the inflorescence | e all small | , triangular, | 00 <b>2-</b> |                        |
|-----------------------------|-------------|---------------|--------------|------------------------|
| cave, puberulous, not in w  | horls       | •••           | •••          | 2. M. Scortechinii.    |
| Bracts of inflorescence in  | whorls at   | the base of   | the          |                        |
| flower-pedicels, broad      | •••         | •••           | •••          | 8. M. gracilis.        |
| Leaves opposite :—          |             |               |              |                        |
| Flowers 5-merous            | •••         | •••           | •••          | <b>4.</b> M. Maingayi. |
| Flowers 4-merous            | •••         | •••           | •••          | 5. M. Clarkeana.       |

1. MASTIXIA BRACTEATA, Clarke in Hook. fil. Fl. Br. Ind. II, 746. A tree 40 or 50 feet high: young branches slender, glabrous. Leaves alternate, thinly coriaceous, olivaceous-green when dry, abruptly bluntly and shortly acuminate, the base cuneate; both surfaces glabrous, the lower faintly reticulate; main-nerves 5 or 6 pairs, ascending, curved impressed on the upper but prominent on the lower surface: length 1.75 to 3 in.; breadth .75 to 1.35 in.; petiole .25 to .5 in. Cymes terminal, 75 to 1.5 in. long, branching, many-flowered, bracteate; the bracts of two sorts; those at the bases of the branches linear-oblong, blunt, 1-nerved, glabrous, longer than the flowers; those at the bases of the flowers much smaller, lanceolate, puberulous. Flowers a little over 1 in. long. Calyz funnel-shaped, the tube adpressed-silky outside; the mouth expanded, glabrous, wavy but scarcely distinctly toothed. Corolla hemispheric in bud : petals adnate by their edges, broadly ovate, silky externally. Anthers 5, broadly ovate, cordate at the base; filaments short. Disc large, fleshy, 5-toothed, each tooth with an oblong depression in the middle. Style short, grooved. Fruit unknown.

MALACCA: Maingay (K.D.) 710. PERAK: Kunstler 6830.

2. MASTIXIA SCORTECHINI, King n. sp. A small tree; young branches slender, angled, glabrous. Leaves coriaceous, elliptic-oblong or oblanceolate, much attenuate to the base, the apex shortly and bluntly acuminate; both surfaces glabrous, pale olivaceous when dry, the lower the palest; main-nerves 4 or 5 pairs, ascending, slender; length 1.75 to 2.5 in.; breadth .85 to 1.25 in.; petiole .25 to .5 in. Oymes corymbose, terminal, several together, 1.25 to 1.75 in. long, puberulous; the branches short, angled; bracts at the bases of the branches and of the flowers similar, small, triangular, concave, puberulous. Flowers sessile; calys-tube narrowly campanulate, the mouth with 5 distinct triangular teeth. Corolla depressed-globose in bud. Petals 5, puberulous outside, ovate, acute. Stamens 5: anthers broadly ovate, cordate at the base: filaments short. Disc fleshy, cushion-like, with 5 short lobes. Ovary 1-celled; style short, grooved, stigma peltate. Fruit unknown. M. bracteata Scortechini MSS. (not of Clarke).

PERAK: Scortechini 1971.

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This much resembles a leaf specimen issued by Koorders and Valeton (No. 914) from Herb. Buitenzorg as *M. trichotoma*, Bl. I have not seen Blume's type of this species. But in his Bijdragen he describes its flowers as tetramerous. A Sumatra specimen collected by Beccari (P.S. 956) which has ripe fruit but no flowers probably belong to this. These fruits are narrowly oblong, tapering to each end, smooth, slightly over an inch in length and about '35 in. in diam. (when dry). *M. Scortechinii* much resembles *M. bracteata*, Clarke; but differs in having bold acute calyx-teeth, and only one kind of bracts on the inflorescence.

3. MASTIXIA GRACILIS, King n. sp. A small tree; young branches slender, angled, smooth, yellowish. Leaves thinly coriaceous, lanceolate, tapering much to the base and still more to the much acuminate apex; both surfaces pale olivaceous-green when dry, glabrous; the upper shining, the lower somewhat dull; main-nerves 8 to 14 pairs, ascending, very little curved, faint on both surfaces; length 2.25 to 4.5 in.; breadth '8 to 1.5 in.; petioles varying from '2 to '25 in. Oymes in threes, terminal, about a third or a fourth the length of the leaves, on short angled peduncles, the branches short and crowded at their apices, many-flowered, with a whorl of minute broad bracts at the base of flower pedicels. Flowers about '1 in. long, their pedicels about as long, ovoid. Calyz campanulate; the tube puberulous, slightly furrowed; the mouth wavy, indistinctly 5-toothed. Petals 5, oblong-ovate, adherent by their edges, concave, leathery. Stamens 5; anthers oblong, bifid: filaments short. Disc small. Style short, conical: stigma concave. Fruit unknown.

PERAK: at an elevation of about 5,000 feet; Wray 1528.

4. MASTIXIA MAINGAYI, Clarke in Hook. fil. Fl. Br. Ind. II, 746. A tall tree; young branches, petioles, under surfaces of leaves, branches and bracts of the inflorescence and the outer surfaces of the calyx and petals densely and softly rusty-tomentose. Leaves opposite, coriaceous, elliptic or elliptic-ovate, the apex shortly and abruptly acuminate, the base cuneate; upper surface glabrous, greenish when dry, the midrib and nerves impressed; the tomentum on the lower surface pale brown; main-nerves 6 to 8 pairs, ascending, curved, very prominent on the lower surface and connecting nerves transverse; length 4 to 6 in.; breadth 1.5 to 3 in.; petioles unequal, .75 to 1 in. Cymes branched, on peduncles 1.5 to 2 in. long, terminal, longer than the leaves; the bracts at the bases of the branches small, oblong. Flowers numerous, 15 in. long. Calyz campanulate, deeply 4-lobed; the lobes broadly ovate, obtuse. Petals 4, similar in shape to the sepals but smaller, concave, adnate by their edges. Stamens 4, inserted on a thick fleshy cushion-like circular disc by short filaments; anthers short, broadly ovate, cordate, introrse. Ovary one-celled, crowned by the fleshy disc. Fruit ellipsaid, not compressed, attenuate towards the apex, smooth, 1.2 in. long and .6 in. in diam.

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MALACCA: Maingay (K.D.) 711. SINGAPOBE: T. Anderson, Kurz.

VAR. sub-tomentosa, King. The tomentum minute, the panicles somewhat shorter, otherwise as in the typical form. M. Junghuhniana, Clarke not of Miq. in Hook. fil. Fl. Br. Ind. II, 746.

SINGAPORB : Ridley 6293, 6340. PENANG : Curtis 1564. MALACCA : Maingay (K.D.) 709.

5. MASTIXIA CLARKEANA, King n. sp. A tree 40 to 60 feet high; young branches slender, striate, glabrous. Leaves opposite, thinly coriaceous, oblong or oblong-lanceolate, narrowed to the rounded or sub-acute base; the apex rather abruptly and somewhat bluntly acuminate; both surfaces glabrous, the upper pale olivaceous-green, the lower dull, pale brownish when dry; main-nerves 5 to 6 or 7 pairs, ascending, slightly curved, impressed on the upper surface, prominent on the lower; length 3 to 4 in.; breadth 1 to 1.35 in.; petiole 3 to 35 in. Cymes terminal, nearly as long as (or sometimes longer than) the leaves, pedunculate, with rather numerous many-flowered angular puberulous branches : bracteoles minute, opposite in pairs, lanceolate or ovate, concave. Flowers 'l in. long, sessile. Calyx funnel-shaped, pubescent outside, the month with 4 deep broadly ovate teeth. Corolla depressed-globular in bud. Petals 4, nearly as long as the calyx-teeth, ovate-rotund, concave. Stamens 4: anthers short, ovate-rotund, filaments short. Disc fleshy, 4-lobed. Style short, compressed. Stigma concave. Fruit unknown.

PERAK: Scortechini 98, 625, 869; King's Collector 10861.

VAB. macrophylla, King. Leaves ovate-elliptic, shortly acuminate; main nerves 7 pairs : flowers as in the typical form.

PERAK: Scortechini 10575.

There are in Herb. Cal. specimens belonging to four distinct species of *Mastisa* which are too imperfect to be named, and which I have been unable to match with any already described species. These are as follows :---

(a). Two gatherings (Wray 1234 and King's Collector 2907) of a plant collected atan elevation of from 3000 to 3400 feet in Perak which is evidently a Mastizia. In their leaves these resemble M. Maingayi, Clarke, var. sub-tomentosa, King; but the under surfaces are more glabrous and the main-nerves are rather more oblique than in that plant; the young branches are moreover of a dark colour and almost glabrous, while those of M. Maingayi are pale and rufescently tomentose. These specimens are in fruit, and none of them has a single flower. The fruit is narrowly ellipsoid, attenuate gradually to the apex, smooth, 12 in. long, and '4 in. in diam. While the leaves suggest a relationship to M. Maingayi, the remains of the calyxlobes at the apex of the fruit, which are 4-lobed, suggest perhaps a still closer affinity to the tetramerous species M. Clarkeana, King.

(b). A specimen from Penang (Herb. Curtis 919) which is in fruit only.

(c). Specimens of a tetramerous species (in fruit only) from the Andamans with leaves otherwise like those of *M. pentandra*, Bl., but obscurely serrate.

(d). Two specimens collected by Mr. Wray at an elevation of 6,700 feet in Perak. These are in fruit; their leaves resemble those of *M. gracilis*, King, but have the main-nerves fewer but bolder.

## 2. ALANGIUM, Lamk.

Shrubs or trees. Leaves alternate, petiolate, entire, persistent. Flowers in axillary fascicles or short cymes, hermaphrodite, hairy, jointed on their pedicels; bracts small or 0. Calyz-tube adnate to the ovary, the limb toothed or truncate. Petals 5 or 6 (rarely more), linear-oblong, valvate, sometimes becoming reflexed. Stamens equal in number to or twice as many as the petals or more; the anthers, long, linear; the filaments short compressed, often hairy. Ovary inferior, 1- to 3-celled, or 1-celled at the apex and 2- to 3-celled at the base, surmounted by a fleshy disc: style very long often clavate; stigma large, capitate or pyramidal; ovule pendulous. Fruit a berry, often with very scanty pulp, crowned by the slightly enlarged calyx. Seed oblong, compressed; albumen fleshy, sometimes ruminate; cotyledons leafy, flat or crumpled : radicle long or short. - DISTRIB. About 16 species, in tropical and sub-tropical Asia and Africa, Australia, Polynesia.

|                                                         | 1. A. Lamarckii.   |
|---------------------------------------------------------|--------------------|
| Stamens 5 or 6; fruit much compressed :-                |                    |
| Leaves oblique, membranous :                            |                    |
| Cymes on comparatively long peduncles, much-branch-     |                    |
| ed, many-flowered                                       | 2. A. uniloculare. |
| Leaves not oblique, coriaceous :                        |                    |
| Cymes on short peduncles; flowers 6 to 12, shortly      |                    |
| pedicelled and '1 in. in diam.; leaves glabrous above   |                    |
| and minutely scaly underneath                           | 8. A. ebenaceum.   |
| Cymes sessile, 3- to 5-flowered; flowers '25 in. in     |                    |
| diam.; leaves glabrous on both surfaces                 | 4. A. Ridleyi.     |
| Cymes on very short peduncles, 4- to 8-flowered :       |                    |
| flowers '1 in. in diam. ; leaves tomentose or pubescent |                    |
| on lower surface                                        | 5. A. nobile.      |

1. ALANGIUM LAMARCKII, Thwaites Enum. Pl. Ceyl. 133 A shrub or small tree. Leaves variable in form and size, those of the Malayan specimens oblong-elliptic, elliptic to elliptic-ovate or ovate-rotand, the base rounded or slightly cordate, the apex with a short blunt apiculus; upper surface glabrous or nearly so, the lower with a few scattered hairs; main-nerves 4 or 5 pairs, reticulations distinct; length 3 to 6 in.; breadth 2 to 3.5 in.; petiole 2 to 3 in. Flowers in short dense fascicles of 4 to 8, about 75 in. long; peduncles, pedicels and outside of calyx rusty-tomentose. Calyz cupular, slightly 6-toothed. Petals lanceolate,

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sub-acute, externally hairy, inside glabrous but with a hairy mesial line. Stamens about 18, two opposite each petal and one opposite each sepal, free; filaments slender pilose; anthers linear reaching almost to the apices of the petals. Disc annular, wavy. Style as long as the stamens, 6-grooved; stigma 3-lobed. Fruit ellipsoid, slightly compressed, contracted below the disc-bearing mouth, densely and minutely tomentose, .75 to 1 in. long and .65 in. in diam. Dalz. & Gibs. Fl. Bombay 109; Brandis For. Fl. N.-W. India 250; Clarke in Hook. fil. Fl. Br. Ind. II, 741; Trimen Fl. Ceylon I, 285. A. decapetalum, Lamk. Dict. I, t. 174; DC. Prodr. III, 203; Wall. Cat. 6884; W. & A. Prodr. 325; Wight Ic. t 194 Miq. Fl. Ind. Bat. I, Pt. I, 774; Kurz For. Fl. I, 543. A. hexapetalum, Lamk. and DC. II. c.; Roxb. Hort. Beng. 38, Fl. Ind. II, 502; Wall. Cat. 6883; W. & A. Prodr. 326; Wight Ill. t. 96. A. sundanum, Mig. Fl. Ind. Bat. I, Pt. I, 774; Kurz. l.c. A. tomentosum, Lamk. and DC. II. c. ; Wall. Cat. 6885. A. latifolium, Miq. in Pl. Hohenack. No. 719.-Rheede Hort. Mal. IV, tt. 17, 26.

PERAK: Scortechini; King's Collector 5590. SINGAPORE; Ridley 6020.—DISTRIB. Brit. India, Malayan Archipelago, S. China, Philippines, East Africa.

VAR. glandulosa, Clarke in Hook. fil. Fl. Br. Ind. II, 742. A large climber. A. glandulosa, Thw. Enum. Pl. Ceyl. 133; Trimen Fl. Ceyl. II, 286.

ANDAMAN and NICOBAB ISLANDS. DISTRIB. CEYLON.

2. ALANGIUM UNILOCULABE, King. A tree 30 to 60 feet high; young branches minutely rusty-pubescent, slender. Leaves membranous, obliquely ovate-lanceolate or oblong-lanceolate, acuminate, the base unequal, one side rounded the other acute, the edges somewhat wavy; upper surface glabrous except the tomentose midrib and pubescent main-nerves; the lower sparsely sub-adpressed pubescent and minutely glandular; main-nerves 4 to 6 pairs, ascending, the lower on one side much branched, all slightly prominent on both surfaces; the main-veins sub-parallel; length 8.5 to 5.5 in.; breadth 1.75 to 2.25 in.; petiole .25 to .3 in., villous. Oymes axillary, about onethird of the length of the leaves, pedunculate; the branches spreading, rusty pubescent, many-flowered. Flowers about '4 in. long, with subulate bracteoles and short pedicels. Calyx-tube funnel-shaped, not grooved, the mouth minutely toothed. Petals 5, linear; anthers linear; filaments short, broad, woolly at the apex. Style cylindric, pubescent; stigma subglobose. Fruit ovate in outline, much tapered to the apex, compressed, faintly ridged when dry, '6 in. long and '35 in. broad when dry. Marlea unilocularis, Griff. Notul. IV, 679. M. Griffithii, Clarke in Hook. fil. Fl. Br. Ind. II, 742.

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MALAOCA: Griffith (K.D.) 3387; Maingay 708. PERAK: Wray 2927, 3486; Scortechini 1914; King's Collector-many numbers.

3. ALANGUIM EBENACEUM, Griffith MSS. A tree 30 to 70 feet high; young branches rather slender, smooth, dark-coloured when dry. Leaves coriaceous, oblong, slightly acuminate, the base cuneate or rounded; upper surface glabrous, the lower with numerous minute pale scales; main-nerves 13 to 16 pairs, spreading, very slightly curved, prominent on the lower surface; length 6 to 10 in.; breadth 2.5 to 4 in.; petiole 35 to 8 in. long. Cymes from as long to twice as long as the petioles, on short peduncles, axillary, branched, 6- to 12-flowered. Flowers sessile, 65 in. long, and only 1 in. in diam. Calyz cupular slightly 'grooved; the mouth truncate, slightly toothed. Petals 6 (sometimes only 5), linear, minutely pubescent externally. Stamens 6 (or 5); anthers about as long as the petals, linear; filaments short, compressed, woolly in front. Style cylindric-clavate, shortly hairy : stigma pyramidal. Fruit ovate in outline, compressed, faintly ridged, about 1 in, long and 6 in. wide. Marlea ebenacea, Clarke in Hook. fil. Fl. Br. Ind. I, 742.

MALACCA: Griffith (K.D.) 3384. Maingay (K.D.) 706. PERAK: Wray 3302; Scortechini 1963; King's Collector 3252, 5363, 6562, 6626.

4. ALANGIUM RIDLEYI, King. A tree; young branches covered with minute deciduous scales and hairs, rather slender. Leaves coriaccous, elliptic, sometimes slightly obovate, shortly and bluntly acuminate, the base cuneate; both surfaces glabrous; main-nerves 10 pairs spreading, slightly curved upwards, bold and prominent on the lower surface; connecting veins parallel, faint; length 6 to 8 in.; breadth 2.5 to 3.5 in.; petioles 9 to 1.3 in. Oymes as long as or rather shorter than the petioles, sessile, 3- to 5-flowered. Flowers nearly 1 in. long. •25 in. in diam. their pedicels •2 to •25 in. long, minutely velvetytomentose like the outside of the calyx and petals. Calyx campanulate, slightly furrowed, the mouth wide truncate. Petals 6, thick, grooved and minutely hairy inside, oblong-lanceolate, sub-acute. Stamens somewhat shorter than the petals; anthers narrowly linear, with a tuft of hairs at the base; filaments short flat almost glabrous. Style slender clavate ; stigma deeply furrowed, disc 6-angled cushion-like, glabrous. Fruit unknown.

SINGAPOBE, in the Botanic Garden Jungle, Ridley 4941.

Ridley's specimens are without fruit. Mr. Wray has sent from Perak some specimens (Herb. Wray 3632) of a plant in fruit which in spite of its considerably larger leaves (nearly a foot long), may be conspecific with this. These fruits are narrowly ellipsoid, much compressed and deeply furrowed, narrowly to the base, ess so to the truncate apex. A. costata, Boerl. MSS. is the nearest ally of both.

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5. ALANGIUM NOBILE, Harms. A tree 60 to 100 feet high : young branches and petioles velvety rusty-tomentose. Leaves coriaceous. elliptic to ovate-elliptic, rarely slightly obovate, entire, the base slightly cordate rarely sub-acute, the apex blunt or very shortly and bluntly acuminate; upper surface almost glabrous, the midrib and nerves minutely tomentose: lower surface densely and minutely tomentose or pubescent; main-nerves 8 to 10 pairs, spreading, slightly curved, very bold on the lower surface when dry, the secondary nerves transverse and bold; length 4.5 to 12 in.; breadth 3 to 6.5 in.; petiole .8 to 1.75 in. Cymes on very short pedancles, 4- to 8-flowered, shorter or slightly longer than the petioles. Flowers .5 or .6 in. long and .1 in. in diam.; their pedicels very short and thick. Calyx narrowly campanulate; deeply 6-grooved; the month with 6 deep lanceolate spreading teeth. Petals thick, narrowly oblong, sub-acute, tomentose, especially outside, sub-glabrous inside. Stamens 6, shorter than the petals, filaments short villous inside; anthers linear. Style cylindric, adpressed villous; stigmas linear. Disc glabrous, deeply 6-lobed. Fruit compressed. ridged, ellipsoid in outline, slightly contracted at both ends, tomentose, about 1 in. long and .65 in. broad. Marlea nobilis, Clarke in Hook. fil. Fl. Br. Ind. II, 743.

MALACCA: Griffith (K.D.) 3384, 3385. Maingay (K.D.); 705, 707. PERAK: King's Collector 6047, 6116, 10892. SINGAPORE: Maingay; Ridley 5077.

Beccari collected in Borneo specimens (Herb. Becc. P.B. 3611) of a species closely allied to this, the flowers of which are however longer ('85 in.) with the calyx-tube much less prominently grooved.

## 3. Nyssa, Linu.

Trees (or shrubs), innovations silky. Leaves alternate, petioled, entire. Flowers capitate, on axillary peduncles, polygamo-dioecious, 1 or few females and many males in a head, each 3-4-bracteolate, or the males irregularly coalescing. MALE: calyx short, cup-shaped, 5-7toothed; petals 5-7, imbricate, hairy; stamens usually 10 (in the Indian species) around a large circular disc; rudiment of the ovary 0 or small. FEMALE: calyx-tube campanulate; limb 5-toothed; petals 0 or minute; rudimentary stamens none; ovary 1-celled; style cylindric, simple or shortly 2-fid; ovule solitary, pendulous. Berry oblong or ovoid. Albumen copious; cotyledons flat, leafy, nearly as broad and the seeds.—DISTRIE. Species 5-6, in N. America, and from Sikkim to Java.

NYSSA SESSILIFLORA, Hook. fil. in Gen. Plantar. I, 952. A tree. Leaves sub-coriaceous, oblanceolate or elliptic-lanceolate tapering to each end, length 4 to 8 in.; breadth 1.5 to 2.5 in.; petiole .6 to .8 in.; both surfaces minutely punctate; main-nerves 6 to 8 pairs, spreading. Peduncles puberulous, 5 to 1 in. long. Ripe fruit oblong-ovoid, smooth, crowned by the small circular calyx, 6 to 75 in. long when dry. Clarke in Hook. fil. Fl. Br. Ind. II, 747. Daphniphyllopsis capitata, Kurz For. Fl. I, 240; and in Journ. As. Soc. 1875, Pt. II, 201, with fig. Ilex daphniphylloides, Kurz in Journ. As. Soc 1870, Pt. II, 72. Agathisanthes javanica, Blume Bijd. 645; Miq. Fl. Ind. Bat. I. Pt. I. 839. Ceratostachya arborea, Blume Bijd. 644; Miq. l.c.

PERAK: at elevat. of 3,400 feet, Wray.—DISTRIB. Sumatra, Forbes 2880: Beccari (P.S.) 17, 335; Java; Trop. Eastern Himalaya; Khasia Hills.

IV.-Novicise Indicee XIX. A new Indian Dendrobium.-By D. PBAIN.

[Received February 26th; Read March 6tb, 1902.]

Among the Orchids that flowered in the Royal Botanic Garden, Calcutta, during 1901, one of the most beautiful was a *Dendrobium* that differs from any of the Indian species hitherto described. To be assured that the plant is in reality a previously unknown species a drawing from life has been compared with the material and drawings preserved in the great national collection at Kew. The following description of the plant is now therefore offered.

DENDROBIUM REGIUM Prain; caulibus erectis parum compressis; foliis oblongo-lanceolatis versus apicem oblique retusum vel incisum augustatis; floribus 2-3 pedunculo brevi subracemosis, pedunculis e caulis aphylli nodis orientibus; sepalis lineari-oblongis obtusis roseo-purpureis lineis rubro-purpureis notatis; petulis ellipticis roseo-purpureis lineis rubro-purpureis reticulatis; mento brevi lato; labio lituiformi aliquantum angustato, limbo roseo-purpureo lineis rubro-purpureis reticulato, glabro; tubo pallide flavo.

HAB. In provinciis Hindustaniæ inferioribus.

Stems 8-12 cm. long, 1.3 cm. thick; nodes 3 cm. apart. Leaves 8-40 cm. long, 1.5 cm. wide, tips distinctly obliquely notched. Peduncles 2 cm. and pedicels 4 cm. long; bracteoles adpressed, lanceolate, under 1 cm. long. Flowers 8 cm. across, magenta with darker lines and transverse markings; mentum 1.25 cm. long; sepals 1 cm. and petals 2.75 cm. wide; lip 4 cm. long.

This species is very nearly related to D. nobils Lindl. but is quite distinct from any of the known varieties of that somewhat variable species. In the nearly uniform coloration of the sepals and petals (though not in the colour itself) it approaches most closely the form of D. nobils distinguished and figured by Lindley, Sertum t. 18, as D. coerulescens. That plant, however, has a lip with purple throat and yellow margin; the present species has a cream-coloured tube and throat with a magenta limb coloured and marked like the petals and sepals. The lip of D. regium s, more over, narrower than in any form of D. nobile and is not pubescent. 1902.]

V.—On some cases of Abrupt Variation in Indian Birds.—By F. FINN, B.A., F.Z.S., Deputy Superintendent of the Indian Museum.

[ Received February 26th; Read March 5th, 1902. ]

I. ALBINISTIC VARIATION IN Dissemurus paradiseus, Æthiopsar fuscus, Acridotheres tristis, AND Pavoncella pugnaw.

The albinistic and other varieties which so frequently occur everywhere among birds are too frequently passed over by ornithologists as mere "freaks" unworthy of careful consideration; yet every now and then occurs an instance of sudden and abrupt variation, of a type which when found constantly is unhesitatingly allowed the rank of a species.

It is true that the majority of albinistic specimens belong to a form which appears no more capable of maintaining itself in nature than is the perfect pink-eyed albino; at any rate, just as no pink-eyed species of bird exists in the wild state, so we also find that no species is splashed, pied, or mottled in the irregular manner characteristic of many domestic birds and of the usual pied variety which occurs in wild ones.

Such a specimen is the pied Bhimraj (*Dissemurus paradiseus*) figured on Plate I., in contrast with the type of the species named by me (J.A.S.B. LXVIII, Pt. II. p. 119) *Dissemurus alcocki*; I have been induced to refigure the latter in order to show that it is no mere albinism. The pied bird had the base of the bill partly whitish, and even some of the rictal bristles white; it is the only pied specimen of this species I have ever seen, and I have examined many, both alive and dead.

A more interesting and much rarer type of variety, however, is that in which the markings are similar to those occurring in a natural species. Such an one is the specimen of the Jungle Mynah (Æthiopsar fuscus) figured on plate II; and catalogued by Anderson (Cat. Birds, Mus. As. Soc. interleaved Museum copy) as "577, one, albino, Moulmein, Major Tickell."\* In this bird the general plumage is white, with the quills, both primary and secondary, and the tail feathers normally coloured. The greater coverts are partly white and partly normal, and thus I am inclined to suspect that this is a similar case to one which I have recently observed in the Common Mynah (Acridotheres tristis). In this bird the plumage was originally all white, with the eyes, bill and feet normal. Mr. Rutledge kept it for some time, and it began to change

<sup>\*</sup> This colouration of white body and dark quills and tail is normal in the Javan Graculipica melanoptera, a bird which I was able to study in life in the London Zoological Gardens in 1901. Since writing this paper I have seen another grizzled specimen of Dissemurus paradiseus.

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into the normal plumage, remaining for some time white with normal wings and tail, like the present bird. It is now in a very peculiar condition, being only scantily covered with feathers, some white and some normal. It has for a companion a normally-coloured bird, which, as I can personally testify, was once white, though not so completely so.

Another case of albinism of unusual interest is farnished by the white-headed form of the Ruff (*Paroncella pugnax*), which is apparently not uncommon, at all events in Eastern specimens of this bird. Though the male is so well known to be exceedingly variable when in summer plumage, it is as constant in colour during the winter as other birds. Yet every now and then there appears a specimen in winter plumage with the head and neck more or less white, varying from complete whiteness of these parts to merely a white nape and unusually white fore-neck. All of the birds thus characterized are adults, as is shown by their orange or flesh-coloured feet (these being olive in the young); and the females or Reeves are thus affected as well as the Ruffs, but far more rarely and to a less extent.

In the stuffed pair figured in Plate III., which are part of the Asiatic Society's collection, and were procured by Blyth during the years 1842-1846, the whole head and neck are white with the exception of the crown, which is mostly normal, and of some scattered brown feathers on the neck. They are numbered 1601B (the female) and 1601K (the male).

In a skin (2340 in the Museum Register) procured on in the Calcutta Bazaar, February 19th, 1875 evidently a male from the dimensions, the whole head, neck and upper breast are white, there are a few white feathers on the upper back, and the coverts along the fore-arm and carpus are partly white. This is figured in the plate, together with another male (Reg. No. 24005) obtained this winter (January 30th, 1902), which is even whiter, having more white feathers on the back and fore-arm, and one tertiary white. In this the feet and base of bill were flesh-coloured; the eyes normal.

Six more specimens of the variation have been obtained by me in the Calcutta Bazaar during the present winter, all being adult males. One (Reg. No. 24006) is whiter than either of those figured, having the upper back largely white, as well as all the head and breast, but no abnormal amount on the wings.

The second whitest specimen, (Reg. No. 24007) procured on February 2nd, has a white head and neck, with normally coloured feathers round the face; it had the feet and base of bill orange.

Of the others, one, procured on February 16th (Reg. No. 24018) closely resembles Blyth's male figured; another, procured on February

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3rd (Reg. No. 24024) is also similar, but has the back of the neck normal; one, procured on February 22nd (Reg. No. 24019) has the head normal and the neck white all round; and a rather small specimen, obtained on February 11th (Reg. No. 24008) has the neck all white in front and the head and back of the neck merely mottled with white.

This nearly approaches the normal form, in which the fore-neck shows a varying amount of white; but any white on the crown or nape may fairly be called an abrupt variation.

I have not this year been able to procure any specimens of this variety in good enough condition to keep alive, but early last year I was more fortunate, and got two pairs, most of which are still living in the Alipore Zoological Garden. Both males much resemble the mounted male figured, but one has some tertiaries white in both wings at the present time, though when obtained it only showed white in one wing. The one female which remains alive merely has the neck white all round.

During last winter I remember seeing one male largely white-necked, which was dead, and I therefore did not buy it, not then attaching so much importance to the variety, as I had seen so few.

It is only during the last two winters that I have taken special notice of this species, but I could not very well have overlooked the conspicuous white headed form had it occurred commonly before; and it is to be noted that these last two winters have been noteworthy for unusually numerous occurrences of the Bronze-capped Teal (*Eunetta falcata*) in the Bazaar, a bird usually decidedly rare in India. It is possible, therefore, that these white-headed Ruffs are an Eastern strain, which, like the duck above-mentioned, only occasionally migrate in a westerly direction. It will be noticed also that during the years 1842-46 that Blyth procured his specimens, he also got the Clucking Teal (*Nettium formosum*) and Eastern White-eyed Pochard (*Nyroca baeri*), also eastern irregular visitants to our empire.

As out of so many specimens of this variety seen by me only three were females, we may conclude that the variation is largely limited to the male, Reeves here at all events being much more numerous than Ruffs. I have above shown that it only occurs in old birds, and thus I am inclined to look on it as a species of senile albinism analogous to what occurs in black varieties of the domestic fowl and duck. I have also seen an agoing green Canary turn largely yellow about the head.

At the same time, these white-marked individuals are not at all wanting in vigour; the two white-headed makes at the Calcutta Zoological Gardens have survived while all the normally coloured Ruffs protared that winter (1900-01) have died, though kept under similar conditions; and one now, although crippled to a great extent in one wing, is master of most if not all the normally coloured Ruffs again placed with him in another aviary. Yet a Reeve, which was at first his sole companion of the species, seems to have deserted him for a normally coloured bird.

The only-slightly-mottled specimen alluded to above also, though undersized and slightly lame, often attacked and beat a larger, though younger, normally-coloured male confined with it, which was sound.

In conclusion, it seems to me, that whether the unusual number of this variety which have appeared of late is due to an abnormal westerly migration or not, it seems to be a well-marked and definable form, liable to recur again and again, and very probably hereditary; thus it would be likely to increase, unless checked by natural or sexual selection.

The Ruff could probably afford to run a greater risk than most birds, as it is evidently a vigorous species, more hardy of constitution, courageous, and indiscriminate in its diet than most *Limicolæ*; this is shown by its readiness to eat vegetable as well as animal food, its habit of constantly fighting, in which both series indulge as well in winter as in summer, and its power of recovering from injuries and enduring so unnatural a climate as that of Bengal.

As it is desirable to distinguish a well-marked and recurrent aberration like this by a subspecific name, I venture to suggest that it be known as *Pavoncella pugnax leucoprora*.\*

II. NOTE ON THE Gallus pseudhermaphroditus OF BLYTH.

With the attention that is now being paid to the variation of animals under domestication, it may not be mal à propos to recall to the memory of naturalists the curious variety of the fowl described many years ago, though doubtfully, by Blyth, under the name of Gullus pseudhermaphroditus. The specimen is alluded to in his catalogue of the birds in the collection of the Asiatic Society under No. 1463 as "P. Singular individual (?) variety, from Mergui, described as G. pseudhermaphroditus, J.A.S.X, 925. Rev. J. Barbe (1841)."

The specimen still exists, and, unlike too many of Blyth's birds, has suffered little deterioration, and hence I have thought it advisable to give a figure of it here (Plate II), as I have never seen or heard of a similar variation myself. I also reproduce below the original description from page 925 of the tenth volume of our Society's Journal, since this is not very readily accessible now-a-days :--

Diagnosis—Exemplis hibernis P. pugnacis similis, sed capite et nuclá aut omnino albis ant albo variegatis distinguenda.

## 1902.] F. Finn-Abrupt Variation in Indian Birds.

"Gallus pseudhermaphroditus, Nobis, N.S. ? ----- A very singular bird, which, if I was not positively assured, was a male in normal plumage, I should have suspected to be either an individual of mingled sex, or possibly an aged male; for that it is not a female in partially masculine attire is evident from the size of its comb and wattles, and especially of its spurs. Size of an English game cock, or larger than the male G. Bankivus, having much stouter legs, the spurs of which are  $1\frac{1}{2}$  inches long; comb and wattles as in the G. Bankivus, but the former more entire towards the front (possibly a mere individual diversity): the tail is that of a cock bird of this genus, but scarcely more developed than in the Euplocomi (as Eu. albocristatus); in other respects the plumage is altogether that of an ordinary brown hen, having a redder cast than in the female G. Bankivus, especially on the wings; tail coloured as in an ordinary male. Length about 2 feet, of which the middle tail feathers occupy 10 inches, wing from bend 9 inches, and tarse behind, to back toe, 2<sup>‡</sup> inches. I am informed that this species is never clad in the usual bright plumage of other male birds of its genus."

The specimen now only shows one long central tail-feather or "sickle," the other having apparently been broken, since there is a large broken feather on the opposite side of the tail. From the look of the comb and the coarse legs with abnormally enlarged anterior scales, there can be little doubt that the bird was really a domestic one; and if its peculiarities were as a matter of fact racial, it would seem that there has existed in the east, a breed of which the cocks bore more or less feminine plumage, comparable to the "Henny" game still existing in England; which, however, are *altogether* hen-feathered.

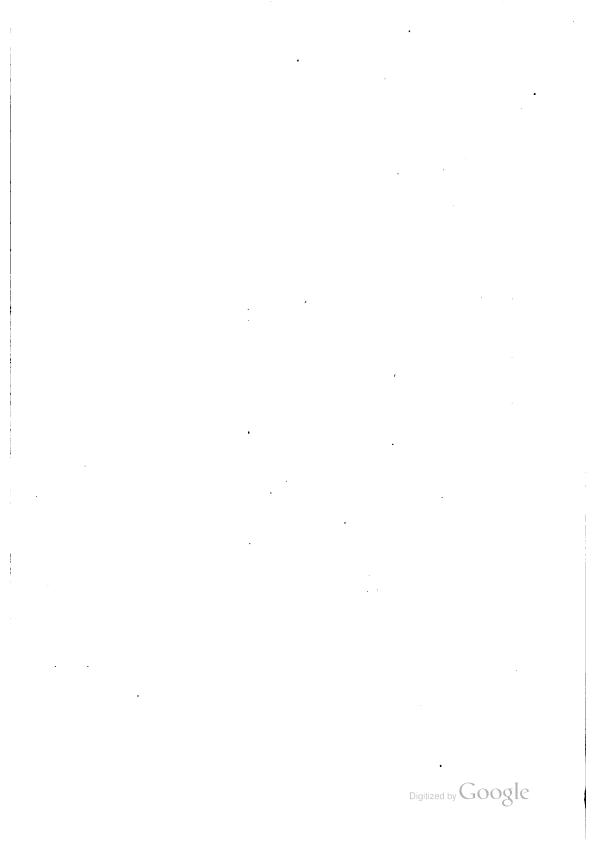
I have never seen any hen-feathered cocks among the very variable domestic poultry which occupy the coops in the Calcutta Bazaar; and I should like here to draw attention to the fact that the operation of caponizing, so frequently performed in India, results in more finelydeveloped male plumage in the cockerels operated on, although their combs and wattles do not develop fully, but remain like those of hens.

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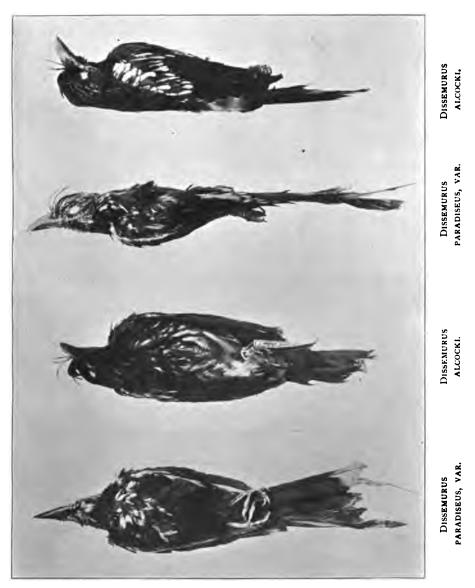


PLATE I.



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PLATE III.







# NOTE ON THE PUBLICATIONS

OF THE

## ASIATIC SOCIETY.

The *Proceedings* of the Asiatic Society are issued ten times a year as soon as possible after the General Meetings which are held on the first Wednesday in every month in the year except September and October; they contain an account of the meeting with some of the shorter and less important papers read at it, while only titles or short resumés of the longer papers, which are subsequently published in the *Journal*, are given.

The Journal consists of three entirely distinct and separate volumes : Part I, containing papers relating to Philology, Antiquities, etc.; Part II, containing papers relating to Physical Science; and Part III devoted to Anthropology, Ethnology, etc.

Each Part is issued in four or five numbers, and the whole forms three complete volumes corresponding to the year of publication.

The Journal of the Asiatic Society was commenced in the year 1832, previous to which the papers read before the Society were published in a quarto periodical, entitled Asiatic Researches, of which twenty volumes were issued between the years 1788 and 1839.

The Journal was published regularly, one volume corresponding to each year from 1832 to 1864; in that year the division into two parts above-mentioned was made, and since that date two volumes have been issued regularly every year From 1894 an additional volume, Part III, has been issued.

The Proceedings up to the year 1864, were bound up with the Journal, but since that date have been separately issued every year.

The following is a list of the Asiatic Society's publications relating to Physical Science, still in print, which can be obtained at the Society's House, No. 57, Park Street, Calcutta, or from the Society's Agents in London, Messrs. Luzac & Co., 46, Great Russell Street, W. C.; and from Mr. Otto Harrassowitz, Leipzig, Germany.

ASIATIC RESEARCHES. Vols. VII, Vols. XI and XVII, and Vols. XIX and XX @ 10/ each Rs. 50 C.

PROCEEDINGS of the Asiatic Society from 1865 to 1869 (incl.) @ /6/ per No.; and from 1870 to date @ /8/ per No.

JOURNAL of the Asiatic Society for 1843 (12), 1844 (12), 1845 (12), 1846 (5), 1847 (12), 1848 (12), 1850 (7), 1851 (7), 1857

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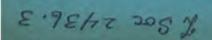
(6), 1858 (5), 1861 (4), 1862 (5), 1864 (5), 1866 (7), 1867 (6), 1868 (6), 1869 (8), 1870 (8), 1871 (7), 1872 (8), 1873 (8), 1874 (8), 1875 (7), 1876 (7), 1877 (8), 1878 (8), 1879 (7), 1880 (8), 1881 (7), 1882 (6), 1883 (5), 1884 (6), 1885 (6), 1886 (8), 1887 (7), 1888 (7), 1889 (10), 1890 (9 and 2 Supplts.), 1891 (7), 1892 (7 and Supplt.), 1893 (11), 1894 (8), 1895 (7), 1896 (8), 1897 (8), 1898 (8), 1899 (7), 1900 (7), @ 1/8 per No. to Members and @ 2/ per No. to Non-Members

N. B.—The figures enclosed in brackets give the number of Nos. in each Volume.

| Centenary R  | eview of t | he Researche   | s of the Se | ociety from 1 | 784 to |    |   |
|--------------|------------|----------------|-------------|---------------|--------|----|---|
| 1883         |            |                |             |               |        | 3  | 0 |
| Theobald's C | Intalogue  | of Reptiles i  | n the Mus   | eum of the A  | siatic |    |   |
| Society (H   | Extra No.  | , J. A. S. B., | 1868)       |               |        | 2  | 0 |
| Catalogue of | the Man    | amals and Bi   | rds of Bu   | rmah, by E.   | Blyth  |    |   |
| (Extra No    | ., J. A. S | . B., 1875)    |             |               |        | 4  | 0 |
| Catalogue of | Fossil V   | ertebrata      |             |               |        | 4  | 0 |
| Catalogue of | the Libra  | ary of the A   | siatic Soci | ety, Bengal   |        | 3  | 8 |
| Moore and H  | lewitson's | Descriptions   | of New In   | ndian Lepido  | ptera, |    |   |
| Parts I-11   | I, with 8  | coloured Pla   | tes, 4to. ( | @ 6/ each     |        | 18 | 0 |

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"The bounds of its investigntion will be the geographical limits of Asls : and within these limits its inquiries will be extended to whatever is performed by man or produced by mature."-Els WILLIAM JONES.

Communications should be sent under cover to the Secretaries, Asiat. Soc., to whom all orders for the work are to be addressed in India, for carse of Massrs. Lucae & Co., 46, Great Russell Street, London, W. O., or Mr. Otto Harvessourie, Leipzig, Germany.

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Summary ...

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" xxviii–xxix ) p. 117 … … pp. 118–120 Digitized by GOOSIC , , ,

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## JOURNAL

#### OF THE

# ASIATIC SOCIETY OF BENGAL,

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Vol. LXXI. Part II.-NATURAL SCIENCE.

### ERRATA.

page 92 head line and line 8 from top for K. read R.

- " 106 line 6 from bottom for "overleaf" read " opposite."
- " 118 line 14 for "page 106" read "page 107."
- " 119 line 1 for 102 read 103.

measurements given by Dr. Sharpe in the British Museum Catalogue of Birds. The wing, however, is only about 61 inches, and although its feathers are much abraded, it could never have been more than about  $6\frac{1}{3}$  inches long, whereas Dr. Sharpe gives 7.3 inches as the length of wing for a bird measuring only a foot and half an inch in length, *i.e.*, about the size of this one. The tail of the Mauritius birds is 2.5 inches in length, whereas the British Museum specimen alluded to has the tail 2.9.

The most remarkable point about the present bird however is its powerful bill and feet. The beak, with frontal shield, measures 1.65 inches; in thickness, at the proximal end of the nostril, it is .45 of an iuch, whereas the biggest-billed Old World bird in the Indian Museum

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## JOURNAL

#### OF THE

# ASIATIC SOCIETY OF BENGAL,

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## Vol. LXXI. Part II.-NATURAL SCIENCE.

## No. II.—1902.

VI.—On specimens of two Mauritian Birds in the collection of the Asiatic Society.—By F. FINN, B.A. FZ.S., Deputy Superintendent of the Indian Museum.

[ Received March 26th ; Read April 2nd, 1902.]

I. ON A SPECIMEN OF THE MOORHEN FROM MAURITIUS.

In Blyth's catalogue of the Birds in the Museum of the Asiatic Society, p. 286, one of the specimens of *Gallinula chloropus* is noted as follows:-G. Var. ? From the Mauritius. Presented by Willis Earle, Esq.

This specimen is still in existence, but as it is in poor condition, having lost many feathers, and the remainder being loose in places, I have deemed it well to have it figured, as it presents certain points of interest which make its appearance worthy of record. (See Plate IV).

Being a stuffed specimen it is not easy to measure exactly with regard to length, but with a tape I make it out to be 1 ft.  $\frac{1}{4}$  inches from tip of bill to end of tail, a fair average length judging from the measurements given by Dr. Sharpe in the British Museum Catalogue of Birds. The wing, however, is only about 6.1 inches, and although its feathers are much abraded, it could never have been more than about  $6\frac{1}{3}$  inches long, whereas Dr. Sharpe gives 7.3 inches as the length of wing for a bird measuring only a foot and half an inch in length, *i.e.*, about the size of this one. The tail of the Mauritius birds is 2.5 inches in length, whereas the British Museum specimen alluded to has the tail 2.9.

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J. II. 12

F. Finn-On specimens of two Mauritian Birds.

Collection, a Kashmir specimen, has a bill and frontal shield of 1.6 inches, with the depth of bill measured in the same place, of .4 only. The wing of this bird measures 6.3.

The left shank of the Mauritius bird, measured from the upper end of the tarso-metatarse to the setting-on of the front-toes, is 2.2 inches, as against the 1.8 of the Kashmir bird; but the thickness of the shank across the front, midway down its length, is 2 in the former as against 15 in the latter. I have not measured the shanks from front to back, so as to avoid any error from the insertion of wires into the legs of the Asiatic Society's specimen. The middle toe and claw of the Mauritius bird only exceed those of the Kashmir specimen by about 'l of an inch, so that in the insular specimen the toes have decreased in relative length. Another remarkable point about the Mauritius bird is that it has the frontal shield, which is very large, trancate behind even more markedly than in the American Gallinula galeata; that is to say, judging from our two specimens of the latter, which show so much variation in this character as to suggest that those authors who only allow the New World birds the rank of a subspecies are correct. The differences in the frontal shields will be easily be apparent from the full-sized figures given in Plate V. It will be seen that the Mauritius bird has as long a bill as the Lake St. Clair example of G. galeata, whose wing measures 7.4 inches.

To sum up, the present specimen of G. chloropus from Mauritius, when compared with normal specimens, exhibits an increase of the size of the bill and feet, and a shortening of the wings, tail, and toes, which show that it has progressed some way in the direction of the flightless forms of Gallinula separated in the British Museum Catalogue as Porphyriornis. In colouration it does not differ from G. chloropus; it is true that the under-tail coverts are cream-colour instead of white, but this is probably due to the age of the specimen. Professor A. Newton's G. pyrrhorhoa, described from Mauritius, has these ochreous under-tailcoverts; but the tinge has been shown by Dr. R. B. Sharpe (Cat. Birds, B.M., Vol. XIII, p. 173), to exist in English specimens, and one in the Indian Museum collected by Colonel C. T. Bingham in the Shan States also exhibits it. Another character given by Professor Newton is the yellowness of the legs of G. pyrrhorhoa; but from an old specimen like the present one it is quite impossible now to say of what colour the legs originally were.

It seems to me, therefore, that the Moorhens of Mauritius need re-examination; if they normally present the stoutness of build and brevity of wing and tail characteristic of the present specimen, they certainly constitute a recognizable race, which might well bear the name

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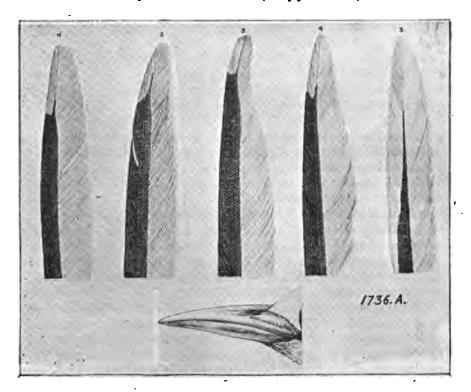
1902.] F. Finn-On specimens of two Mauritian Birds.

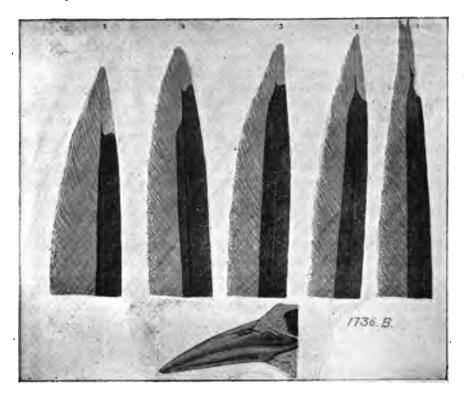
bestowed by Professor Newton, since that ornithologist expressly mentions a large frontal shield as one of the characteristics of G. pyrrhorhva.

II. ON TWO SPECIMENS OF A TROPIC-BIRD FROM MAURITIUS.

In Blyth's Catalogue, under the number 1736, we find the entry, "A.B., Adults, from the Mauritius. Willis Earle, Esq.," in reference to two specimens of a Tropic-bird which he there designates *Ph. candidus*. This is the *P. lepturus* of the British Museum Catalogue, Vol. XXVI, p. 454.

I find, however, that while specimen A of Blyth's Catalogue agrees with the British Museum Catalogue description in most particulars, specimen B is distinct, and resembles *Phaëthon americanus* in having shorter white tips to the first four primaries, and in having the outer web of the fifth entirely black to within a short distance of the extremity. Both birds also have evidently had the bill almost entirely yellow, unlike that of *P. lepturus* as described. (See figures below).





Except for this bill and for the slightly shorter white tips to the quills, 1736A is true *P. lepturus*, which, from the British Museum Catalogue list of specimens, occurs at Mauritius, and it may therefore, I think, be referred to that species, although not entirely agreeing therewith.

The other specimen, B, however, is not so nearly in agreement with P. americanus, for while it has a nearly completely yellow bill, the white tips of the first four primaries are never so little as half an inch long, and the third quill is not nearly all black, but marked like the rest, although the fifth has a good deal of black along the outer web as in P. americanus.

Thus these two specimens do not agree with the description of any species of *Phaëthon*; and yet they differ far too much from each other to be referred to a separate form. I am therefore disposed to think that they are both *Phaëthon lepturus*; and this must be a variable species, since it can produce, in the Old World, one individual showing a considerable approximation to the American *P. americanus*, in the

#### 1902.] F. Finn-Hybrids between the Guinea-fowl and Common fowl. 91

colouration of the bill and quills; and another which approaches the American form in the colouration of the bill only. It is, of course, just conceivable that a specimen of P. americanus strayed at one time to Manritius and interbred with the local birds; but the distribution of the form renders this unlikely, and I should be rather inclined to put down the peculiarities of these birds to simple variation.

VII.—On hybrids between the Guinea-fowl and Common fowl.—By F. FINN, B.A., F.Z.S., Deputy Superintendent of the Indian Museum.

[Received March 26th; Read April 2nd, 1902.]

A good account of this cross, which is not by any means common, has been given by Dr. Juan Vilaro, in the Balletin of the American Museum of Natural History, Vol. IX. (1897), p. 225.

The hybrid, as represented in the plates accompanying Dr. Vilaro's papers has a very characteristic appearance, its general form and carriage being intermediate between the Fowl and Guinea-fowl, and its head devoid of the comb and gular wattles of the one and rictal wattles and casque of the other. I was thus easily enabled to recognize as Guinea-fowl hybrids three curious fowls received by the Calcutta Zoological Garden from Mr. A. T. Blewitt, of Kalka, early in 1899.

They had been caught in a wild state, but this is not surprising as the tame-bred hybrid between the domestic Muscovy Duck and Common Duck is known to become feral at times.

These birds all resembled Common fowls in colour, the largest being splashed with white and red-brown, and the other two (one of which is figured on Plate VI) being red-brown with black necks and fine black pencilling on many of the feathers. The characteristic spotting of the Guinea-fowl was altogether absent. All had bare fleshcoloured faces, and a pendulous dewlap, most marked in the large whitespotted specimen. There was no comb, although a bare median area at the base of the bill above seemed to indicate a rudiment; and the rictal wattles of the Guinea-fowl were just indicated at the gape; of the horn of the Guinea fowl and gular wattles of the fowl there was no trace at all. The specimen figured was a male, the testes being about the size of haricot beans ; of the others, which have also died and been transferred to the Museum, the brown specimen has been preserved entire in spirits, and the other made into a skeleton. The taxidermist who prepared it states that it was a female, which I should certainly not have suspected from seeing the three birds alive. All were larger than a Guinea-fowl or ordinary Indian fowl, and had particularly strong

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bills and legs, the latter of a black colour. Their behaviour was quiet; but they were never placed with other birds, so I do not know how they would have treated these. Like Dr. Vilaro's specimens, they seemed to be very sensible to heat, panting more than other birds, and their only cry was a piping, chirping sound, very different from the harsh note of the birds which came under Dr. Vilaro's observation.

VIII.—Notes on Animals kept in the Alipore Zoological Garden. No. I.— By RAI K. B. SANYAL BAHADUR, Superintendent of the Garden.

[Received March 26th; Read April 2nd, 1902.]

OBSERVATIONS ON THE HABITS OF ORANG OUTANG IN CAPTIVITY.

Orang Outang thinks and acts with a view to accomplishing an object. An Orang Outang and a Proboscis Monkey (Semnopithecus [Nasalis] larvatus), lived in two contiguous cages separated by iron gratings. Although of different temperaments—the Orang Outang lively, vivacious and prone to mischief, and the monkey phlegmatic and indolent-they were best of friends; and enjoyed each other's company as much as the intervening partition would allow. The Orang's friendship for the monkey was, however, not altogether disinterested. They were usually fed about the same time upon the same kind of food, and as the Orang Outang was blessed with a keen appetite, he had no scruple to help himself, to as much of his friend's share as chance brought within his reach. One morning he was found making desperate attempts to annex the remnants of the monkey's breakfast by repeatedly thrusting his arms through the gratings. But all his tricks and trouble availed him not, as the light tin vessel containing the tempting morsel lay beyond the reach of his long arms. Having failed in his attempt to get at the food, he sat still for a few seconds as if to collect his thoughts, and to devise means for the accomplishment of his object, and presently made a rush into his sleeping apartment, fetched a quantity of straw, and twisted it into a sort of rough rope, and with it began striking the tin vessel containing the food, and ultimately succeeded in bringing it within the reach of his arms.

Orang Outang imitating human action. It is well known that in their wild state Orang Outangs indulge in the habit of building platforms of twigs and branches on large trees. Given opportunities they would do the same in captivity also.

The Orang Outang whose habits are here chronicled, was a remarkably docile animal, and was, therefore, allowed to enjoy as much free-

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dom as it was deemed safe. The first use that he made of his liberty was to build himself a platform on one of the trees that stood close to his habitation. One cloudy August morning, while seated on his arboreal perch, he noticed some early visitors open out their umbrellas to protect themselves from a passing shower of rain, and straightway he broke off a leafy branch and held it umbrella-fashion over his own head in immitation of the human folks!

It was amusing to see him following visitors who happened to have anything tied in their cloth, or who carried a bundle on their head. Quick to observe, he had noticed some of them untying a bundle to give him a feed, and by a simple process of ratiocination he came to connect all bundles with food and feeding !

#### PHYSIOLOGICAL ECONOMY OF ANIMALS AFFECTED BY ACCIDENTS.

A Large White Egret (*Herodias alba*) having-lived happily in the Garden for many years managed to break one of its legs by sustaining a fracture of its left tarsus. The fracture was set up and the wound healed nicely, but the shock of the accident must have materially affected the physiological economy of the bird's system; as during the next two years it did not assume the full breeding plumage, or the bright green of the facial skin which it usually did in summer and which was such a characteristic feature of the bird Although in about three years after the accident it began putting on the summer dress again, there was a marked deterioration in the character of the plumes and the colour of the facial skin. This might have been due to old age also.

## IX.—On the Variation of the Flower of Ranunculus arvensis.—By I. H. BURKILL, M.A.

There is a regular sequence of organs in the Phanerogamic flower, sepals, petals, stamens, carpels,—which is never departed from, and which may be said to be due to the passing of moods over the axis,—a mood for the formation of sepals, a mood for the formation of petals, a mood for the formation of stamens, and a mood for the formation of carpels. Each mood is preclusive in its time of the others and definite; and the flower axis runs through them as a matter of course.

In the flower, mood follows mood very closely; yet the tendency so widely manifest, for the floral organs to be formed in whorls is a separating of the moods each from its neighbours by concentrating ou itself.

The symmetry of the flower depends firstly on this regular sequence and separation of the moods; it depends secondly on the way in which successive rings of organs,—sepals, petals, etc.—are commonly isomerous.

I have been driven to a conviction that the separation of these moods has not yet obtained the attention it deserves. We need to know much about them; chiefly as to the conditions which lead to their separation: for the whole Phanerogamic subkingdom shows us that the more specialised a flower is the more distinctly are its moods separated; and the isolation of the moods is undeniably of far-reaching importance in the growth of perfect floral symmetry.

It may be said that there are questions of four kinds to be asked regarding the moods, (i) why the moods exist, (ii) as to the reason of their sequence, (iii) as to the requirements which have made them as distinct as they are, and (iv) as to the causes leading to a determination of the number of lateral organs which belong to each of them severally.

They are questions in organography, as Goebel terms the causative morphology of the new school, in order to distinguish it from the descriptive morphology which is subservient to the systematist. The foundation of organography is in the Darwinian theory of evolution.

The present paper concerns questions of the fourth kind; but in preface I wish to make some brief remarks regarding the second and the third kind of question. Regarding the second : the sepals are formed outermost to protect; the petals are formed second to attract; and we have these reasons for the position of both; but why the mood for the formation of stamens should invariably precede that for the formation of carpels is a question which must remain a subject for speculation almost as long as the origin of the Phanerogams is unsolved. This only can be said, that somehow the formation of female organs puts a period to the forward growth of the axis, whereas the forming stamens have divided with the axis the available nutrition passing beyond the growing sepals and petals. This perhaps means some advantage in the matter of food to one or the other. I do not say which : but it is to be confessed that there are strong reasons for assuming that, in nature generally, conditions of good nourishment tend more to the formation of female than of male organs: for experiments on the lower plants-Algee, Fungi and Vascular Cryptogams-have shown that there is a tendency for female reproductive organs to be formed when the plants are well nourished, male organs when they are starved : and extensive observations on animals indicate the same thing. A condition so widely true may well be true also of the Phanerogams; but at the present time can we produce any convincing evidence that the developing bad

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gets better nourished as it progresses from the formation of sterile protective or showy organs, through male organs to fomale organs, or that the female organs appropriate two shares of nutriment because there is by them that which might belong to an elongating axis ?

Regarding the third kind of question, let it be remarked that intermediate organs are apt to be useless organs and that therefore we see one reason for the distinctness of the moods; secondly, it is to be stated that if we let ourselves believe that sepals, petals, stamens and carpels are formed under conditions of nutrition which change as the axis gives rise to them, we still cannot easily assume that the conditions of nourishment change as abruptly as do the moods.

Lastly, with regard to the fourth kind of question we are bound to suppose that a certain relationship between the number of the stamens and carpels exists which is at least not prejudicial to the maintenance of the race; i.e., that enough stamens must be produced to enable a sufficiency of seed to be set by the carpels; and it is reasonable to believe that the petals and the sepals are required by their biological functions to bear a more or less definite proportion to the organs they protect or make conspicuous: but it will be acknowledged that this supposition implies a force too loose in its action to produce isomerism as we see it, too loose to regulate the not uncommon orderly change of a normally tetramerous flower to pentamerism, or of a normally pentamerous flower to hexamerism, and impossible to accept as the sole factor when we glance at the general absence of intermediate conditions between isostemony and diplostemony. The view to which Schwendener's and Karl Schumann's work leads, can carry us a step beyond this supposition; for, as they have shown, we have strong reasons for believing that the symmetry of a flower is largely influenced by the mutual pressure in the bud of part on part, and that this pressure to a considerable degree compels new organs to appear in the niches between those recently formed. Thus do the sepals-the outermost members of the flower-as it were set the step and, e.g., if they are in rings of five (I use the word ring because I require a term less definite than whorl) the petals and stamens frequently follow in fives.

The carpels too may follow the step, but their position is unique in that the axis is no longer growing forward when they form and new conditions of pressure, as perhaps of nutrition, are possibly existing.

The individual and the race are always in slight antagonism: the race asks for reproduction, and some writers such as Axell have thought that they could see in the flower the most perfect adaptation or subservience to reproduction. But our flower, above conceived,

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asserts the individual distinctly if we allow the possible formation of sexual organs by order according to nutrition available, and the fixing of the number by the need of packing. I shall show later, at least in *Ranunculus arvensis*, another assertion of the individual—a setting aside of the claims of the race by allowing a kind of right of primogeniture to the moods in the flower. This right of primogeniture is the more interesting when we consider it in connection with the view that sepals and petals are sterilised stamens; for it gives preference to the mood which by origin is then supposed secondary.

The above remarks are to be taken as embodying some notion of the foundations of the Phanerogamic flower. Working upon them we may make a study of a particular species of plant in order to seek how far the fixed and definite relationships of the organs in number to one another, which we can observe in most Phanerogams, may be due to the compelling influence of pressure in the bud acting inwards from the outermost organs (sepals), or to the way in which nutrition becomes available in the developing axis, or to nutrition and the influence of pressure combined, or to the attempt of the plant to produce an effective and economical assemblage of reproductive members. I have proposed to approach the question by comparing the variation in adjacent sets of floral organs, and seeing how far in different types of flower any one set is free to deviate from pattern.

There are flowers where the jointing of set on set may be considered to be loose, where adjacent rings of organs are not isomerous and such flowers seemed best for my purpose. One such is *Parnassia palustris* where a 4-merous ovary tops an otherwise 5-merous flower; another is the garden Gloxinia where 2 carpels top a similarly 5-merous (potentially in stamens) flower. It is to be asked if, as a rule, variation from normal is more easily accomplished on the upper side of the badly fitting joint than elsewhere. If so, then the inference is obvious that pressure is playing a large part in keeping to type the moods of that flower which are well jointed.

This I found to be the case with *Parnassia palustris*. In 1894 and 1895 I examined over 5,000 flowers and I recorded my observations in the Journal of Botany, 1896, pp. 12-15.

I had approximately 5,152 flowers normal in the number of sepals and in only two of them did the petals, stamens and staminodes fail to keep true to symmetry; but the carpels diverged from the normal four in 450 cases. I had 36 flowers abnormal in the number of sepals, 15 with only four, 21 with six, and in all but three of those flowers petals, stamens and staminodes followed the lead and varied with the sepals; but in them eleven flowers had three carpels, nine had the usual

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four, fourteen had five and two had six. So much for the free variation above the badly fitting line in Parnassia. In the garden Gloxinia on which I have made, when at Kew, some unpublished observations, it is the same. Gardeners have selected and raised beautiful races with more than the normal number of petals; the selection was never for the sepals or stamens, but these two sets of organs have varied hand in hand with the petals while the ovary which normally has two carpels hesitates in the improved race between two and three.

A table which I gave in my note on Parnassia shewed that when the sepals were 4, the carpels were generally 3; and when the sepals were 6, the carpels were generally 5. Herein we see a correlative increase or decrease in both. Now it is easier by  $\frac{1}{30}$  of the unit to squeeze five than to expand three into the space of four and it happened in Parnassia, as I showed in a table on page 13 of the Journal, that five carpels were more common in 6-merous than three in the 4-merous flowers,—an observation in accord with ideas of pressure but of a ring on a confined area; and not of organs compelling others to fall into the niches between them. Towards satisfying myself in this matter, I devised a little machine for measuring divergences and succeeded in demonstrating (see Annals of Botany, XV, 1901, pp. 187-192) that, at least when near fruit-ripening, the carpels in Parnassia have no very exact relationship in position to the sepals.

After examining Parnassia I sought for a flower with worse fitting joints or better with no joints at all and took *Ranunculus arvensis* for my purpose.

Ranunculus arvensis is a little cornfield weed of Europe and Temperate Asia, an annual and easily grown. It is very variable in the flower and in all parts of it; it has not got that concentration of the moods for the formation of the various floral organs which occurs in all regularly whorled flowers, its moods for the formation of petals and stamens being particularly ill-defined. These irregularities seemed to me qualifications suiting it particularly to my purpose. The sepals are commonly 5 with a divergence of  $\frac{2}{5}$ , the petals are 5 or fewer alternating with the sepals and repeating their divergence; but the stamens and carpels have a completely different arrangement; the former are very variable in number and the latter generally 4-7.

I grew my plants in 1895 in the University Botanic Garden, Cambridge, from seed which had ripened in the Botanic Gardens of Bonn and Hiedelberg, Paris, Stockholm and Bordeaux, and in 1898 in a window box at Kew from seed which had ripened in the years 1896 and 1897 in the Royal Botanic Gardens, Kew. I made a point of examining every flower produced, counting and recording the number of its sepals, petals, stamens and carpels, and noting any obvious abnormalities in it. For the purpose the flowers were picked when just open, and this picking, done duily, caused the plants to continue long in blossom.

In this way I examined in 1895, 1,383 flowers from Heidelberg seed and 1,203 from Bonn seed; in 1898, 2,298 from Kew 1896 seed (157 plants) and 1,589 from Kew 1897 seed (73 plants); and also in 1895 lesser numbers of flowers from Paris, Stockholm, and Bordeaux seed—numbers too small to be of real service. I give the results of the examination of the Paris, Stockholm and Bordeaux plants here before proceeding. I shall not mention them again.

| <u> </u>                       |     | <u></u> | No. of<br>flowers. | A vorage<br>No. of<br>Sepals. | Average<br>No. of<br>Petals. | Average<br>No. of<br>Stamens. | Average<br>No. of<br>Carpels. |
|--------------------------------|-----|---------|--------------------|-------------------------------|------------------------------|-------------------------------|-------------------------------|
| Stockholm<br>Paris<br>Bordeaux | ••• | •••     | 185<br>382<br>167  | 4·94<br>4·91<br>4·95          | 4·49<br>8·50<br>4·10         | 8·27<br>5·50<br>6·74          | 5·87<br>5·25<br>5·37          |

As to the more profitable experiments I found the different sowings to vary as follows :

| No. o      | of Sepals. |     | 0 | 1 | 2 | 8  | 4  | 5     | 6 | 7   | 8 | 9 |
|------------|------------|-----|---|---|---|----|----|-------|---|-----|---|---|
| Heidelberg |            | ••• |   |   |   | 1  | 85 | 1,287 | 8 | 1   | 0 | 1 |
| Bonn       | •••        | ••• |   | 1 | 0 | 9  | 69 | 1,121 | 8 | 0   | 1 |   |
| Kew, Old   | •••        | ••• |   |   | 2 | 18 | 63 | 2,217 | 8 | ••• |   |   |
| Kew, New   | •••        | ••• | 1 | 8 | 4 | 18 | 46 | 1,516 | 1 |     |   |   |

Tuble II.-Variation in Petals.

| No. (                                      | of Petals. |                    | 0          | 1                | 2                     | 8                        | 4                        | 5                          | 6                | 7          | 8         |
|--------------------------------------------|------------|--------------------|------------|------------------|-----------------------|--------------------------|--------------------------|----------------------------|------------------|------------|-----------|
| Heidelberg<br>Bonn<br>Kew, Old<br>Kew, New | •••        | ••••<br>•••<br>••• | <br>2<br>3 | 5<br>4<br>2<br>2 | 126<br>82<br>26<br>19 | 486<br>849<br>287<br>182 | 417<br>438<br>430<br>289 | 845<br>827<br>1592<br>1091 | 8<br>1<br>9<br>8 | 1<br>1<br> | <br>1<br> |

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| No. of Stamens. |   | 0 | 1 | 2  | 3  | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
|-----------------|---|---|---|----|----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|
| Heidelberg      | - |   | 1 | 12 | 21 | 65  | 186 | 238 | 308 | 282 | 170 | 98  | 32 | 8  | 4  | 3  | 3  | 1  | 1  |    |
| Bonn            |   |   | 1 | 4  | 9  | 21  | 81  | 154 | 247 | 294 | 211 | 123 | 36 | 8  | 5  | 6  | 0  | 2  | 1  |    |
| Kew, Old        |   |   | 1 | 5  | 62 | 229 | 433 | 428 | 304 | 270 | 134 | 140 | 97 | 73 | 69 | 27 | 17 | 9  |    |    |
| Kew, New        |   | 1 | 3 | 6  | 30 | 143 | 292 | 265 | 203 | 190 | 140 | 95  | 74 | 60 | 46 | 25 | 1  | 4  | 1  | 1  |

Table III.—Variation in Stamens.

Table IV.—Variation in Carpels.

| No. of Carp                                | els. | 0               | 1       | 2                   | 8                     | 4                        | 5                        | 6                        | 7                        | 8                      | 9                 | 10 | 11 | 12   | 18 | 14 | 15  | 16 |
|--------------------------------------------|------|-----------------|---------|---------------------|-----------------------|--------------------------|--------------------------|--------------------------|--------------------------|------------------------|-------------------|----|----|------|----|----|-----|----|
| Heidelberg<br>Bonn<br>Kew, Old<br>Kew, New | •••• | 3<br>5<br><br>1 | 10<br>8 | 13<br>4<br>24<br>16 | 95<br>85<br>175<br>68 | 266<br>155<br>862<br>198 | 511<br>426<br>634<br>853 | 814<br>879<br>584<br>891 | 186<br>153<br>403<br>364 | 81<br>28<br>107<br>158 | 8<br>6<br>6<br>37 | 2  |    | <br> |    |    | ••• | 1  |

There is an obvious difference between the two German races and the Kew race and some difference between the Kew plants from 1896 seed and those from 1897 seed although they belonged to the same stock. The variation curves which may be plotted from these figures are irregular, and those for no one set of organs exactly correspond with those for neighbouring sets : the curves of the sepals are half-Galton curves : and the curves of the petals in the Kew race are also half-Galton curves. but not quite as those for the sepals ; while the curves of the petals in the German races are intermediate between half-Galton and symmetric Quetelet binomial curves: the curves for the stamens are equally asymmetric, but in a different way; while the curves for the carpels are the most nearly bi-symmetric of all but are not quite so. It is evident from a comparison of them that the flower does not vary as an unit as for instance a Tulip flower may, every ring of organs changing from 3-merism to 4-merism; but each mood varies in its own manner. We shall learn more of this independence of the moods in variation by studying their association. I cannot give tables of the combinations observed in the different races for all the four sets of organs taken two together, without occupying a great amount of space; I therefore give tables for the "Kew Old" plants alone. They will serve as an illustration for all, as the tables which could be given for the German races and "Kew New" are not unlike them.

| 1                                      | Sepals.                 |             | 0   | 1   | 2             | 8             | 4                             | 5                                   | 6                       | Total<br>No. of<br>flowers.         | Average<br>No. of<br>Sepals.             |
|----------------------------------------|-------------------------|-------------|-----|-----|---------------|---------------|-------------------------------|-------------------------------------|-------------------------|-------------------------------------|------------------------------------------|
| 0 Petals<br>1<br>2<br>3<br>4<br>5<br>6 | ····<br>····<br>···     |             | ••• | ••• | <br>1<br><br> | <br><br>6<br> | <br>22<br>24<br>26<br>10<br>1 | 2<br>23<br>205<br>396<br>1,582<br>7 | <br><br>1<br>1<br><br>1 | 2<br>26<br>237<br>430<br>1,592<br>9 | <br>4.81<br>4.85<br>4.89<br>4.99<br>5.00 |
| Total N<br>Average                     | o. of flow<br>No. of pe | ers<br>tals | ••• |     | 2<br>         | 13<br>3·46    | 63<br>8·71                    | 2,217<br>4.60                       | 8                       | 2,298                               | •••                                      |

Table V.-Kew, Old-Correlation of Sepals and Petals.

Table VI.-Kew, Old-Correlation of Sepals and Stamens.

| Stamens.         | 0   | 1             | 2         | 8                           | 4              | 5               | 6                    | 7                   | 8                       | 9 | 10 | 11 | 12   | 18     | 14 | 15         | 16    | Total.                                  | Aver-<br>age. |
|------------------|-----|---------------|-----------|-----------------------------|----------------|-----------------|----------------------|---------------------|-------------------------|---|----|----|------|--------|----|------------|-------|-----------------------------------------|---------------|
| 2<br>3<br>4<br>5 | ••• | <br><br><br>1 | <br>5<br> | <br>4<br>10<br>48<br><br>62 | 208<br><br>229 | 410<br>1<br>483 | 5<br>419<br>2<br>428 | 4<br>299<br><br>804 | <br>8<br>267<br><br>270 |   |    |    | . 73 | 69<br> | 27 | <br>17<br> | 9<br> | <br>13<br>63<br>2,217<br>3<br>2,298<br> | 5·25<br>7·01  |

Table VII.—Kew, Old—Correlation of Sepals and Carpels.

| Carpels. |      | 0 | 1   | 2    | 8            | 4    | 5    | 6            | 7            | 8    | 9   | 10  | Total. | Aver-<br>age. |
|----------|------|---|-----|------|--------------|------|------|--------------|--------------|------|-----|-----|--------|---------------|
| Sepals   |      |   | ••• |      | •••          |      |      |              |              |      |     | ••• |        |               |
| 2        | •••  |   | ••• |      | •••          | 2    |      | •••          | •••          |      | ••• | ••• | 2      | ••••          |
| 8        | •••  |   |     | 2    | 8            | 4    |      | 0            | 1            |      | ••• |     | 18     | 8.92          |
| 4        | •••  |   | 1   | 2    | 21           | 20   | 10   |              |              |      |     |     | 63     | 4.05          |
| 5        |      |   | 2   | 20   | 150          | 835  | 621  | 577          | 399          | 107  | 6   |     | 2,217  | 5.46          |
| 6        | •••  |   | ••• |      | 1            | 1    | 0    | 1            |              |      | ••• | ••• | 8      |               |
| Total    | •••• |   | 8   | 24   | 175          | 862  | 634  | 584          | 403          | 107  | 6   |     | 2,298  |               |
| Average  | •••  |   |     | 4.75 | <b>4</b> ·84 | 4.93 | 4.97 | <b>4·9</b> 9 | <b>4</b> ·99 | 5.00 |     |     | ·      |               |

| Stamens. | 1 | 2  | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12   | 13   | 14   | 15 | 16 | Total. | Aver-<br>age. |
|----------|---|----|------|------|------|------|------|------|------|------|------|------|------|------|----|----|--------|---------------|
| Petals   |   | 1. |      |      |      |      |      |      |      |      |      |      |      |      |    | 01 |        |               |
| 0        | 1 | 0  | 0    | 1    |      |      |      |      |      |      |      |      |      |      |    |    | 2      |               |
| 1        |   |    | 1    | 0    | 0    | 0    | 1    |      |      |      |      |      |      |      |    |    | 2      |               |
| 2        |   |    | 6    | 10   | 7    | 1    | 1    | 1    |      |      |      |      |      |      |    |    | 26     | 4:38          |
| 3        |   | 3  | 24   | 88   | 48   | 35   | 32   | 4    | 3    |      |      |      | 150  |      |    |    | 237    | 4.91          |
| 4        |   | 1  | 17   | 70   | 137  | 95   | 56   | 19   | 15   | 12   | 6    | 0    | 1    | 1    |    |    | 430    | 5.77          |
| 5        |   | 1  | 14   | 59   | 237  | 295  | 212  | 246  | 116  | 128  | 91   | 73   | 68   | 26   | 17 | 9  | 1,592  | 7.91          |
| 6        |   |    |      | 1    | 4    | 2    | 2    |      |      |      |      |      |      | ***  | 1  |    | 9      |               |
| Total    | 1 | 5  | 62   | 229  | 433  | 428  | 304  | 270  | 134  | 140  | 97   | 73   | 69   | 27   | 17 | 9  | 2,298  |               |
| Average  |   | -  | 3 60 | 3.77 | 4.42 | 4.61 | 4.59 | 4.89 | 4.84 | 4.86 | 4.94 | 5.00 | 4.98 | 4.98 | 5  |    |        |               |

Table VIII.-Kew, Old-Correlation of Petals and Stamens.

Table IX.-Kew, Old-Correlation of Petals and Carpels.

|              | Petals. |     | 1     | 2            | 8        | 4            | 5            | 6    | 7    | 8    | 9    | Total.       | Aver-<br>age. |
|--------------|---------|-----|-------|--------------|----------|--------------|--------------|------|------|------|------|--------------|---------------|
| Carpels<br>0 |         | ••• |       |              |          |              | ,            |      | ,    |      | <br> | 2            |               |
| 1            | •••     | ••• | •••   |              | 2        |              |              |      |      |      |      | 2            | •••           |
| 8            | •••     | ••• | <br>2 | 18           |          | 14<br>88     | 52           |      |      | •••  | •••  | 26<br>237    | 8·65<br>8·89  |
| 4<br>5       | •••     | ••• | 1     | 10           | 64<br>80 | 126<br>134   |              |      |      |      | 6    | 430<br>1,592 | 4.69<br>5.88  |
| 6            | •••     | ••• |       | •••          |          |              | 3            | 4    |      |      | •••  | 9            |               |
|              | Total   | ••  | 8     | 24           | 175      |              |              |      |      |      | 6    | 2,298        | •••           |
| Average      | •••     | ••• |       | <b>8</b> ·38 | 8.62     | <b>4</b> ∙06 | <b>4</b> .60 | 4.85 | 4.95 | 4.96 | •••  |              | •••           |

| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$                                                                                                                                                                                      | Stamens.    | <br>0 |   | 63         | ŝ  | 4          | <u>م</u> | 8   | 2   | œ   | 8   | 10  | 11   | 12 | 13   | 14   | 15   | 16 | Total.       | Aver-<br>age. |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------|---|------------|----|------------|----------|-----|-----|-----|-----|-----|------|----|------|------|------|----|--------------|---------------|
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$                                                                                                                                                                                      | 0 Carpels . | <br>  |   |            | :  | :          | :        | -   | :   | :   | :   | :   | :    | :  | :    | :    | :    | :  | :            | :             |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$                                                                                                                                                                                      | •           | <br>  |   | :          | 63 | :          | T        | :   | i   | :   | :   | :   | :    | :  | :    | :    | :    | :  | 8            | :             |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$                                                                                                                                                                                      | 8           | <br>  |   | :          | 4  | 10         | 8        | ŝ   | -   | :   | :   | :   | :    | :  | :    | :    | :    | :  | 24           | 4:46          |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$                                                                                                                                                                                      | е.          | <br>  | : | 8          | 26 | <b>1</b> 2 | 8        | 19  | 11  | 57  | :   | :   | :    | :  | :    | :    | :    | :  | 175          | 4.61          |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$                                                                                                                                                                                       |             | <br>  | : | <b>C</b> 9 | 18 | 87         | 66       | 83  | 50  | 19  | ŝ   | Г   | :    | :  | :    | :    | ÷    | :  | 362          | 6.85          |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$                                                                                                                                                                                       |             | <br>: |   | :          | 7  | 55         | 175      | 49  | 104 | 8   | 24  | 15  | ŝ    | н  | :    | :    | ł    | :  | 634          | 6.18          |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$                                                                                                                                                                                       |             | <br>  |   | :          | ŝ  | 11         | 73       | 17  | 96  | 106 | 56  | 47  | 26   | 23 | 17   | 4    | :    | :  | 584          | 99-4          |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$                                                                                                                                                                                       |             | <br>  |   | :          | ٦  | 8          | 11       | 116 | 89  | 65  | 8   | 58  | 52   | 35 | 36   | 12   | Q    | ŝ  | 408          | 9-44          |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$                                                                                                                                                                                       |             | <br>  |   | :          | F  | :          | 63       | 88  | 4   | 80  | ŝ   | 19  | 18   | 14 | 16   | 10   | 11   | ø  | 101          | 11.05         |
| otal      1     5     62     229     433     428     804     270     134     140     97     78     69     27     17     9          3*68     4*14     4*68     5*16     5*86     5*80     6*18     6*66     6*98     7*02     7*30     7*76 |             | <br>  |   | :          | :  | :          | :        | :   | :   | ;   | :   | :   | F    | :  | :    |      | -    | ŝ  | 9            | ÷             |
| otal 1 5 62 229 433 428 804 270 134 140 97 78 69 27 17 9<br>368 4.14 4.68 5.16 5.36 5.80 6.18 6.56 6.78 6.98 7.02 7.30 7.76                                                                                                                |             |       | + |            | İ  | İ          |          |     | İ   | İ   |     | ĺ   | ĺ    | İ  | Í    |      |      | 1  |              |               |
| ···· ··· ··· 8:68 4:14 4:68 5:16 5:86 5:80 6:18 6:56 6:78 6:98 7:02 7:30 7:76 ···                                                                                                                                                          |             |       |   | Q          | 62 | 229        | 433      | 428 | 804 | 270 | 184 | 140 | - 16 | 78 | 69   | 27   | 11   | 6  | <b>2,298</b> | :             |
|                                                                                                                                                                                                                                            |             | <br>  |   |            |    |            |          | _   |     |     | _   | _   |      |    | 7-02 | 7.30 | 7-76 | :  | :            | :             |

Table X.-Kew, Old-Correlation of Stamens and Carpels.

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I. H. Burkill-Flower of Rauunculus arvensis.

[No. 2,

If we take three absolutely symmetrical dice and toss them the probable scores obtained in 240 throws mathematically calculated are as follows:— <u>8 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18</u> <u>1 8 6 10 15 21 28 36 36 28 21 15 10 6 8 1</u>.

If we take another three dice of distinguishing colour absolutely symmetrical, and throwing them with the others record the association of numbers, the resulting table will be as symmetric as the binomial curve just given, but in two dimensions, and out of 14,400 throws there is one chance of 3+3 being the score of the two sets of dice and one of 18+18, one of 8+18 and one of 18+3; there are three chances of the score being 4+3, and three of its being 17+3, *i.e.*, equal chances as far as the extremes are concerned of there being a close similarity between the figures and a wide dissimilarity. A glance at the tables just given will satisfy that this is not the case in them and that the tendency to similarity is evident; that in the mutual relationship of mood to mood the adjustment is not a question of chance but, as is indicated by the averages in the last column and lowest line of each table, is due to some loosely coercing force which will be discussed.

As I have foregone the publishing of tables to give for the Kew New plants and the Bonn and Heidelberg races my exact observations on adjustment of moods, I place below the averages found omitting those derived from fewer flowers than ten.

I will briefly call attention to the chief points in the averages. Table XI shows that fewer sepals mean fewer of all other organs and it is to be noted that the reduction is greatest in the organs furthest away from the sepals. Table XII shows for the Kew race a considerable reduction of both stamens and carpels when the petals are reduced; it shows for the German races a much slighter reduction of carpels and an insignificant reduction of stamens. It shows further that reduction in the number of petals does not act as a reflex on the number of sepals in anything like the way in which reduction of sepals may be said to promote reduction of petals. Table XIII shows that with a reduction or increase of stamens the reduction or increase of the carpels. is much greater than the reduction or increase of the organs which preceeded them. Table XIV shows that reduction or increase of carpels is accompanied by a more nearly corresponding reduction or increase in the organs closest to them. Consequently, admitting that there is an exception in the relation of petals to stamens in the German races, we may broadly state that the influence producing correlative increase or decrease chiefly acts forwards from the preceding mood to the moods which follow and that correlative increase and decrease is closest in neighbouring moods.

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I. H. Burkill-Flower of Ranunculus arvensis. [No. 2,

Table XI.—Average No. of other organs in association with three, four and five Sepals.

|                        | nber of Sepals.                            | •                   | · · ·             | 3                    | 4.                                   | 5                            |
|------------------------|--------------------------------------------|---------------------|-------------------|----------------------|--------------------------------------|------------------------------|
| Average No. of Petals  | Kew, Old<br>Kew, New<br>Bonn<br>Heidelberg | ••••<br>••••<br>••• | •••<br>•••<br>••• | 8·46<br>8·56<br>2·78 | <b>8</b> ·71<br>3·57<br>8·54<br>8·47 | 4.60<br>4.58<br>3.87<br>8.71 |
| Average No. of Stamena | Kew, Old<br>Kew, New<br>Bonn<br>Heidelberg | •••                 | •••<br>•••<br>••  | 4·39<br>4·78<br>3·78 | 5·25<br>5·87<br>7·81<br>6 28         | 7·01<br>7·49<br>7·83<br>7·27 |
| Average No. of Carpels | Kew, Old<br>Kew, New<br>Bonn<br>Heidelberg | •••                 | ••                | 8.92<br>8.67<br>2.11 | 4 05<br>4 09<br>4 79<br>4 81         | 5·46<br>5·94<br>5·48<br>5·19 |

Table XII.—Average No. of other organs in association with two, three, four, five and six Petals.

| Number of              | Petals.                                    |      | . 2                          | .8                           | 4                            | 5                            | 6.           |
|------------------------|--------------------------------------------|------|------------------------------|------------------------------|------------------------------|------------------------------|--------------|
| Average No. of Sepals  | Kew, Old<br>Kew, New<br>Bonn<br>Heidelberg | •    | 4·81<br>4·58<br>4·83<br>4·93 | 4·85<br>4·76<br>4·91<br>4·95 | 4*89<br>4:87<br>4:92<br>4:89 | 4·99<br>4·98<br>4·98<br>4·99 | 5·00<br>     |
| Average No. of Stamens | Kew, Old<br>Kew, New<br>Bonn<br>Heidelberg | <br> | 4·38<br>4·47<br>7·84<br>7·17 | 4·91<br>4·97<br>7·68<br>7·20 | 5·77<br>6·00<br>7·68<br>7·18 | 7·81<br>8·12<br>7·98<br>7·85 | 8·55<br><br> |
| Average No. of Carpels | Kew, Old<br>Kew, New<br>Bonn<br>Heidelberg | •••  | 8.65<br>8.37<br>4.94<br>4.74 | 3·89<br>4·21<br>5·18<br>4·82 | 4.69<br>5.12<br>5.46<br>5.25 | 6.36<br>5.82<br>5.68         | 5·45<br><br> |

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Table XIII.—Average number of other organs in association with 2-16 Stamens.

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| Stameus                 |                 |      | 69   | 60           | 4            | ю                | 8            | 2          | 80           | 8           | 9          | Ħ    | 12        | 13   | 14           | 15          | 16          |
|-------------------------|-----------------|------|------|--------------|--------------|------------------|--------------|------------|--------------|-------------|------------|------|-----------|------|--------------|-------------|-------------|
| <i>,</i>                | Kew, Old        | :    | :    | 4.77         | 4.89         | 4 94             | <b>4</b> :98 | 4-96<br>4- | 4-99         | 4-98        | 4-99       | 5-00 | 48.9      | 6.00 | <b>2</b> .00 | 5-00        | 5.00        |
| Arrest March Street     | Kew, New        | :    | :    | 4.77         | 4 67         | 4.92             | 4.96         | 4.97       | 4.98         | 4-98        | 4.99       | 6.00 | 5-00      | 5.02 | 5.00         | <u>6</u> 00 | :           |
| AVERAGE NO. OI DEPRIS.  | Bonn            | :    | :    | 4.88         | 4.86         | 4.87             | 4-91         | 4-98       | 4.97         | 4.93        | 4.95       | 5.03 | 5.00      | :    | :            | :           | :           |
|                         | Eleidelberg 483 | :    |      | 4.86         | 4.81         | 4.88             | 4.94         | 4-95       | <b>4</b> -98 | 4-92        | 4-97       | 4-97 | 5-00      | :    | :            | • :         | •           |
|                         | Kew, Old        | :    | :    | 3-60         | 8-77         | 4.42             | 4.61         | 4.69       | 4.89         | 4.84        | <b>98.</b> |      | 4.94 5.00 | 4.98 | <b>4</b> .98 | 5-00        | 20          |
| A No. of Detals         | Kew, New        | :    | :    | 8.40         | <b>3</b> .81 | 4.18             | 4.40         | 4.68       | 4.83         | 18.         | 4.87       | 5.00 | 4.98      | 4.96 | <u>6</u>     | 4.78        | :           |
| TANTARA TIO. OI T DIVIS | Bonn            | :    | :    | 3:44         | 3.71         | 3 81             | 4-00         | 3-81       | 3.55         | 8·79        | 3.75       | 4.08 | 3.63      | . :  | :            | :           | :           |
|                         | Heidelberg      | :    | 3-07 | 3-76         | 3.38         | <b>3</b> .80     | 8-87         | 3-59       | 3-63         | 3.68        | 8-70       | 4-06 | 4.12      | .;   | ;            | :           | :           |
|                         | Kew, Old        |      | :    | 3.68         | 4.14         | 4 <sup>.68</sup> | 5.16         | 5.86       | <b>2</b> .80 | 6.18        | 8-66       | 6-78 | 6-93      | 7-02 | 7-30         | 7-76        | 2<br>8<br>2 |
|                         | Kew, New        | :    | :    | <b>8</b> -80 | 4.65         | 4.91             | 5.39         | 64-9       | 6-28         | 6-79        | 98.9       | 7-31 | 7-39      | 7:40 | 7.96         | 7-36        | •           |
| aradino 10 ou oferador  | Bong            |      | :    | 5-80         | 4.14         | 4.68             | 4.81         | 5.18       | 5-54         | <b>2-91</b> | 6.10       | 6-53 | 6-76      | ;    |              | :           | :           |
|                         | Heidelberg      | 4.82 |      | 4.19         | 4.20         | 4.41             | 4.70         | 5.02       | 5.43         | 671         | 6·11       | 6.84 | 2.50      | :    |              | :           | :           |

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|                        | Carpels.                                      |      | 1                         | 2                     | 5            | 4            | 5            | 6            | 7                            | 8            | 9             |
|------------------------|-----------------------------------------------|------|---------------------------|-----------------------|--------------|--------------|--------------|--------------|------------------------------|--------------|---------------|
| Average No.<br>Sepals  | of Kew, Old<br>Kew, New<br>Bonn<br>Heidelberg | •••  | <br>4 <sup>.</sup> 20<br> | 4·69                  | 4.74         | 4·78<br>4·87 | 4·96<br>4·94 | 4•98<br>4•97 | 5.00                         | 5.00         | 5·00          |
| Average No.<br>Petals  | of Kew, Old<br>Kew, New<br>Bonn<br>Heidelberg | <br> | <br>3.66                  | 8 81                  | 8·18<br>8·60 | 3·77<br>3·52 | 451<br>874   | 4·73<br>3·94 | 4 95<br>4 88<br>4 11<br>4 19 | 4 91<br>4 36 | 4 95<br>      |
| Average No.<br>Stamens | of Kew, Old<br>Kew, New<br>Bonn<br>Heidelberg | <br> | <br>4·90<br>              | 3 <sup>.</sup> 94<br> | <b>4</b> ·63 | 5 22<br>6·72 | 5.85         | 7·16<br>8·26 | 8·87<br>9·18                 | 9.22         | 10 <b>·68</b> |

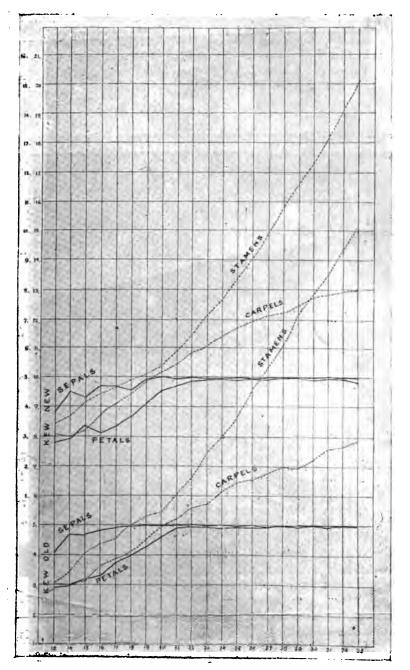
Table XIV.—Average number of other organs in association with 1-9 Carpels.

I must now point out some differences between the races.

When one sepal less than the complete five is present in the Kew race there is approximately one petal less, two stamens less and  $\frac{1}{3}$  carpel less: when two sepals are wanting then we lose further  $\frac{1}{3}$  petal,  $\frac{3}{3}$  stamen and  $\frac{1}{4}$  carpel.

In the German races one sepal less than the complete five means roughly  $\frac{1}{3}$  petal less,  $\frac{3}{4}$  stamen and  $\frac{3}{4}$  carpel: when two sepals are wanting we lose a further  $\frac{3}{4}$  petal,  $3\frac{1}{3}$  stamens,  $2\frac{1}{2}$  carpels; *i.e.*, in the German races 4 sepaled flowers are more nearly otherwise normal than in the Kew race: and what is true for the sepals is true for the petals, *i.e.*, that the first reduction in them from normal is much more closely accompanied by a reduction in other organs than is the case in the two German races.

Apportionment of organs in the Kew race.—The least flower of the Kew race had 8 organs in all, the largest 36. The largest flowers were richest in stamens, the least richest in sepals. I give in table XV the average number of sepals, petals, stamens and carpels in flowers with varying numbers of total organs, and over leaf are curves expressing the result graphically. The result may be briefly stated thus:—if there is power to produce more than 15 organs the sepals claim their full compliment; if there is power to produce more than 20 organs, the petals also claim their full compliment; if there is power to show signs of the produce more than 28 organs the carpels begin to show signs of



Graphic representation of the apportionment of sepals, petals, stamens and carpels in flowers of *Ranunculus arvensis* (Kew, race) with get the number of organs varying from 13 to 33. satiety; extra power beyond this goes chiefly to the stamens. At 20 the flower is not far from having the formula K5 C5 A5 G5, *i.e.*, from being regularly 5-merous. The staminal curve shows slight irregularities at 15 and 18 the curves for petals and carpels practically touch at 15. The correspondence in the two sets of curves is most interesting.

|                      |                  |                          | ĸ                            | Ew, OL                       | D.                              |                                          |                          | Ke                           | w, New                       | •                                                  |                                                |
|----------------------|------------------|--------------------------|------------------------------|------------------------------|---------------------------------|------------------------------------------|--------------------------|------------------------------|------------------------------|----------------------------------------------------|------------------------------------------------|
| No. o<br>organ       |                  | No. of flowers.          | Average No. of<br>Sepals.    | Average No. of<br>Petals.    | Average No. of<br>Stamens       | Average No. of<br>Carpels.               | No. of flowers.          | Average No. of<br>Sepals.    | Average No. of<br>Petals.    | Average No. of<br>Stamens.                         | Average No. of<br>Carpels.                     |
| 8<br>9<br>10         |                  | •••                      | ••••<br>•••                  |                              | •••                             | <br>•<br>•                               | 1<br>0<br>1              | 0<br><br>2 <sup>.</sup> 00   | 8∙00<br><br>8∙00             | 1.00<br><br>4.00                                   | 4 00<br><br>1 00                               |
| 11<br>12<br>13<br>14 | <br>             | 4<br>2<br>14<br>82       | 4·25<br>4·00<br>4·07<br>4·72 | 1.75<br>8.00<br>2.86<br>2.91 | 2·50<br>8·50<br>8·07<br>8·41    | 2.50<br>1.50<br>3.00<br>2.97             | 0<br>5<br>17<br>20       | <br>8·40<br>8·77<br>4 50     | <br>3·00<br>2·77<br>2·85     | <br>3 <sup>.</sup> 40<br>3 41<br>3 <sup>.</sup> 70 | 2 <sup>.</sup> 20<br>3 06<br>2 <sup>.</sup> 95 |
| 15<br>16<br>17       | ••<br>•••<br>·•• | 66<br>80<br>115          | 4·70<br>4·81<br>4·92         | 8·15<br>8·26<br>8·72         | 4.08<br>4.34<br>4.54            | 8·12<br>8·59<br>8·82                     | 28<br>55<br>61           | 4 29<br>4·71<br>4·70         | 3·36<br>3·18<br>3·33         | 4 14<br>4 42<br>4 67                               | 3·21<br>3·69<br>4·13                           |
| 18<br>19<br>20<br>21 | •                | 127<br>173<br>238<br>256 | 4·95<br>4·98<br>4·99<br>4·98 | 8.99<br>4.26<br>4.60<br>4.82 | 4·99<br>5·27<br>5·47<br>6·00    | 4· <del>06</del><br>4·49<br>4·93<br>5·21 | 98<br>81<br>154<br>146   | 4 59<br>4 98<br>5 00<br>4 98 | 8.67<br>4.12<br>4.52<br>4.72 | 4·97<br>5·07<br>5·34<br>5·83                       | 4 47<br>4 83<br>5 14<br>5 47                   |
| 22<br>28<br>24<br>25 | <br><br>         | 236<br>188<br>172<br>128 | 4.99<br>4.99<br>5.00<br>4.99 | 4.86<br>4.96<br>4.91<br>4.93 | 6·55<br>7·32<br>7·91<br>8·63    | 5.60<br>5.72<br>6.14<br>6.45             | 157<br>127<br>119<br>109 | 5.00<br>4.98<br>4.99<br>5.00 | 4·81<br>4·87<br>4 92<br>4·90 | 6·37<br>7·13<br>7·68<br>8 38                       | 5·81<br>6·02<br>6·40<br>6·72                   |
| 26<br>27<br>28       | <br>             | 105<br>84<br>93<br>64    | 5.00<br>4.99<br>5.00<br>5.00 | 4.98<br>4.98<br>5.00<br>4.99 | 9.54<br>10.29<br>11.05<br>12.09 | 6.52<br>6.75<br>6.97<br>6.92             | 104<br>76<br>68<br>48    | 4 99<br>5.00<br>5.(0         | 4 99<br>4·96<br>4·99         | 9 <sup>.</sup> 07<br>9 <sup>.</sup> 84<br>10 78    | 6 95<br>7 20<br>7 24                           |
| 29<br>30<br>31<br>32 | <br><br>         | 54<br>29<br>14           | 5.00<br>5.00<br>5.00         | 5.00<br>4.97<br>5.00         | 12.78<br>13.45<br>14.86         | 7·22<br>7·58<br>7·64                     | 49<br>42<br>16           | 5.00<br>5.00<br>5.02<br>5.00 | 5 00<br>4 96<br>4 98<br>4 94 | 11.54<br>12.29<br>18.21<br>14.12                   | 7 40<br>7·70<br>7·79<br>7·94                   |
| 83<br>34<br>85<br>36 | <br><br>         | 15<br>4<br>8             | 5.00<br>5.00<br>5.00         | 5.00<br>5.00<br>5.00         | 15·18<br>15·75<br>16·00         | 7·87<br>8·25<br>9·00                     | 7<br>8<br>1              | 5.00<br>4.67<br>5.00<br>5.00 | 4.86<br>4.67<br>5.00<br>5.00 | 15.14<br>16.83<br>16.00<br>16.00                   | 8.00<br>8.88<br>9.00<br>10.00                  |

Table XV.—Apportionment in flowers of the Kew race with the number of total organs varying from to 8 to 36.

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## 1. H. Burkill-Flower of Ranunculus arvensis.

|                   |                 |         | Bonn    |          |          |                 | HE      | DELBR   | RG.      |          |
|-------------------|-----------------|---------|---------|----------|----------|-----------------|---------|---------|----------|----------|
| No. of<br>organs. | No. of flowers. | Sepals. | Petals. | Stamens. | Carpels. | No. of flowers. | Sepals. | Petals. | Stamens. | Carpels. |
| 4                 | 1               | 1.00    | 1.00    | 1.00     | 1.00     |                 |         |         |          |          |
| 5.7               | 0               |         |         |          |          |                 |         |         |          |          |
| 8                 | 2               | 3.00    | 2.50    | 2.50     | 0        |                 |         | 2.00    |          |          |
| 9                 | 1               | 3.00    | 3.00    | 2.00     | 1.00     |                 |         |         | 446      |          |
| .0                | 22              | 3.20    | 2.00    | 4 00     | 0.5      |                 |         |         |          |          |
| 1                 | 2               | 5.00    | 3.00    | 2 50     | 05       | 1               | 3.00    | 4.00    | 1 00     | 3.00     |
| 2                 |                 |         |         | 141      |          | 3               | 4.00    | 2.66    | 3.66     | 1.66     |
| 3                 | 3               | 3.66    | 2.67    | 3 33     | 3.33     | 4               | 4.20    | 2.75    | 2.75     | 3.00     |
| 4                 | 4               | 4.00    | 3.00    | 4.25     | 2.75     | 12              | 4.58    | 2.50    | 3.20     | 3.42     |
| 5                 | 7               | 4.14    | 3.14    | 5.00     | 2.71     | 23              | 4.87    | 3.09    | 3.96     | 3.05     |
| 6                 | 15              | 4.60    | 3.13    | 5.02     | 3.20     | 45              | 4.73    | 3.00    | 4.51     | 3.71     |
| 7                 |                 | 4.90    | 3.22    | 5.00     | 3.89     | 73              | 479     | 3.34    | 5.18     | 3 68     |
| 8                 |                 | 4.73    | 3 44    | 5.75     | 4.09     | .97             | 4.87    | 3 30    | 5.72     | 4.11     |
| 9                 |                 | 4.98    | 3.29    | 6.21     | 4.52     | 162             | 4.97    | 3.33    | 6.27     | 4.43     |
| 05                | 153             | 4.92    | 3.55    | 6.73     | 4.78     | 174             | 4.97    | 3.44    | 6.75     | 4.84     |
|                   | 157             | 4.94    | 3.74    | 7.23     | 5.09     | 221             | 4.99    | 3.69    | 7.18     | 5.18     |
|                   |                 | 4.97    | 3 80    | 7.80     | 5.43     | 155             | 4.96    | 3*77    | 7.85     | 5.43     |
|                   |                 | 4.98    | 3.86    | 8.34     | 5.73     | 132             | 4 96    | 4.02    | 8.20     | 5.79     |
|                   | 150             | 4.96    | 4.12    | 8.80     | 6.12     | 112             | 4.99    | 4.33    | 8.60     | 6.08     |
| 25                |                 | 5.00    | 4 35    | 9.09     | 6 56     | 69              | 5 02    | 4.39    | 9.18     | 6.42     |
|                   |                 | 5.00    | 4 40    | 9.81     | 6.77     | 46              | 5.04    | 4.22    | 9.91     | 6.83     |
|                   |                 | 5.00    | 4.71    | 10.28    | 7.00     | 27              | 5.00    | 4.55    | 10.12    | 7.30     |
|                   |                 | 5.08    | 4.69    | 10.77    | 7.46     | 10              | 5.10    | 4.70    | 10.20    | 7.70     |
|                   |                 | 4.89    | 4.67    | 12.11    | 7.33     | 5               | 5.40    | 5.40    | 11.60    | 6 60     |
|                   |                 | 5.00    | 5.00    | 11 00    | 9 00     | 4               | 4.75    | 5.00    | 11.20    | 8.78     |
| 31                | 4               | 5.00    | 5.00    | 13.20    | 7.50     | 2               | 5.00    | 5.00    | 14.50    | 6.80     |
| 32                |                 | 5.00    | 5.00    | 14.00    | 8.00     | 1               | 5.00    | 5.00    | 15.00    | 7.00     |
|                   |                 | 5.00    | 5.00    | 14.00    | 9.00     | 1               | 5.00    | 5.00    | 16.00    | 7.00     |
|                   |                 | 5.00    | 5.10    | 17.00    | 7.00     | 1               | 5.00    | 4.00    | 10.00    | 15.00    |
| 35                | 1               | 5.00    | 5.00    | 16.00    | 9.00     | .0.             |         |         |          |          |
| 36                |                 |         |         | ***      |          | 1               | 9.00    | 5.00    | 15.00    | 7.00     |
| 37-40             |                 |         |         |          |          | 0               |         |         | ***      |          |
| 41                | 1               | 8.00    | 7.00    | 16.00    | 10.00    | 0               |         |         |          |          |
| 42-46             |                 |         | ***     |          |          | 0               |         |         |          |          |
| 47                |                 |         |         |          | ä.       | 1               | 7.00    | 7.00    | 17.00    | 16.00    |

| Table XVIApportionment in flowers of the German races with the |
|----------------------------------------------------------------|
| number of total organs varying from 4 to 47.                   |

Apportionment in the German races.—I give in table XVI the figures for the German races. As in the Kew race so here, in poor flowers the sepals are most numerous and in rich flowers the stamens are most numerous. But in these German races the petals do not claim their full number until the flower is rich enough to have 29 or 30 organs and on the part of the carpels no tendency to be satisfied can be detected. Mathematical expression of the curves in formulæ seems to be by no means impossible although they are complicated.

There is no fiat which says "this will be a flower of *Ranunculus* arvensis, the organs may vary in number a little from the ideal." But the fiat says "this will be a flower and must run throughout all its moods. So long as all are present let them jostle for their compliment." So they jostle and the older win as far as they may by being already established at the time when the younger begin to compete; the sepals take what they want only being forbidden from getting the whole five when that would leave too little for the other moods; and the petals following claim their portion in the same way but a little less strongly. There is left a residue for the stamens and carpels, and the larger it is, the more organs do the moods of both sets, but especially the stamens, obtain.

Nutrition.—If seeding be prevented, Ranunculus arvensis dies flowering in utter depletion. Therefore I could get from this little proletarian flowers formed under the best conditions and under the worst possible conditions of nutrition, and so seek the effect of starvation on the moods spoken of. My earlier paper (Journ. Linn. Soc., Botany, Vol. XXXI, p. 235) contained a note on this plant to show that in it, as in several other plants, the first formed flowers are richest in stamens and carpels; I can now give fuller statistics, and shall show distinctly that the flower is pauperised with the ageing of the plant. I have divided the flowering period of the plants grown in 1895 into three periods and of those grown in 1898 into four periods. The decrease with age in the number of parts in the flower is shown by the following averages :—

|                                        |     |     | Period 1.<br>6th July to<br>17th July. | Period 2.<br>18th July to<br>29th July. | Period 8.<br>30th July to<br>10th August. | Period 4.<br>11th August<br>to 23rd<br>August. |
|----------------------------------------|-----|-----|----------------------------------------|-----------------------------------------|-------------------------------------------|------------------------------------------------|
| Sepals<br>Petals<br>Stamens<br>Carpels | ••• | ••• | 4·99<br>4·95<br>11·58<br>6·78          | 4·98<br>4·85<br>7·81<br>5·97            | 4-99<br>4-66<br>6-17<br>5-28              | 4·89<br>8·95<br>4·98<br>4·15                   |

Table XVII.—Kew, Old. Average number of organs in flowers at different periods.

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|                                        |                   |                   | Period 1.<br>6th July to<br>17th July. |                              | Period 3.<br>30th July to<br>10th August. | Period 4.<br>11th August<br>to 23rd<br>August. |
|----------------------------------------|-------------------|-------------------|----------------------------------------|------------------------------|-------------------------------------------|------------------------------------------------|
| Sepals<br>Petals<br>Stamens<br>Carpels | •••<br>•••<br>••• | •••<br>•••<br>••• | 4·99<br>4·97<br>11·63<br>7·22          | 4·99<br>4·84<br>7·95<br>6·51 | 5·00<br>4·67<br>6·14<br>5·74              | 4·77<br>8·81<br>5·07<br>4· <b>86</b>           |

Table XVIII.—Kew, New. Average number of organs in flowers at different periods; periods as in Table XVII.

Table XIX.—Bonn. Average number of organs in flowers at different periods.

|         |     |     |     | Period 1.<br>June 6th to<br>July 10th. | Period 2.<br>July 11th to<br>August 29th. | Period 3.<br>August 30th<br>to middle of<br>September. |
|---------|-----|-----|-----|----------------------------------------|-------------------------------------------|--------------------------------------------------------|
| Sepals  | ••• | ••• |     | 4.96                                   | 4.92                                      | 4.98                                                   |
| Petals  | ••• | ••• | ••• | 4.22                                   | 8.43                                      | 8.69                                                   |
| Stamens | ••• | ••• | ••• | 8.80                                   | 7.74                                      | 6.82                                                   |
| Carpels |     | ••• | ••  | 5.71                                   | 5.28                                      | 4.75                                                   |

Table XX.—Heidelberg. Average number of organs in flowers at different periods; periods as in Table XIX.

|           |     |     |   | Period 1.<br>June 6th to<br>July 10th. | Period 2.<br>July 11th to<br>August 29th | Period 8.<br>August 30th<br>to middle of<br>September. |
|-----------|-----|-----|---|----------------------------------------|------------------------------------------|--------------------------------------------------------|
| Sepals    |     |     |   | 5.00                                   | 4.94                                     | 4.98                                                   |
| Petals    | ••• | ••• | • | 8.92                                   | 8.70                                     | 8.49                                                   |
| Stamens . | ••• | ••• |   | 8.24                                   | 6.99                                     | 7.07                                                   |
| Carpels   |     | ••• |   | 5·21                                   | 5·16                                     | 5.01                                                   |

With this reduction in number of parts there is a reduction in the size of the flower and there is also a loss of fertility in the anthers. This loss of fertility is shown in the following tables.

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|           | 6                                     | Period 1.<br>5th July to<br>17th July. | Period 2.<br>18th July to<br>29th July. | Period 3.<br>80th July to<br>10th August. | Period 4.<br>11th August<br>to 23rd<br>August. |
|-----------|---------------------------------------|----------------------------------------|-----------------------------------------|-------------------------------------------|------------------------------------------------|
| Per       | al number<br>centage of<br>tamens re- | 91                                     | 1360                                    | 1572                                      | 1777                                           |
|           | uced                                  | <b>2</b> ·58                           | 21.31                                   | 47.49                                     | 56.48                                          |
|           | erage per<br>lower                    | 0.30                                   | 1.66                                    | 2.91                                      | 2•78                                           |
| Per       | al number<br>centage of               | . 28                                   | 1072                                    | 1584                                      | 1178                                           |
| KAW NAW 2 | uced                                  | 0.78                                   | 25.88                                   | 64.73                                     | 54 09                                          |
|           | ower                                  | 0.09                                   | 2.06                                    | <b>3</b> ·98                              | 2.74                                           |

### Table XXI.—Stuminodes in Kew plants at different periods; the periods the same as in Tubles XVII and XVIII.

Table XXII.—Staminodes in the German races at different periods; periods as in Tables XIX and XX.

|            |                                       | Period 1.<br>June 6th to<br>July 10th. | Period 2.<br>July 11th to<br>August 29th. | Period 3.<br>August 30th<br>to mid-Sep-<br>tember. |
|------------|---------------------------------------|----------------------------------------|-------------------------------------------|----------------------------------------------------|
| 1 . • •    | Total number<br>Percentage of stamens | 24                                     | 82                                        | 88                                                 |
| Bonn       | reduced<br>Average per flower         | 2·04<br>0·18                           | 1·13<br>0·09                              | 4·01<br>0·27                                       |
| F<br>      | Total number<br>Percentage of stamens | 87                                     | 75                                        | 36                                                 |
| Heidelberg | { reduced                             | 1.86<br>0.15                           | 1·13<br>0·08                              | 2·61<br>0·19                                       |

I think it will be conceded that poverty of organs and sterility of stamens are alike marks of the plants becoming worn out.

Different organs are unequally reduced in numbers, the stamens fnost of all and before the others. Tables XVII to XX show how the different organs are differently affected by the reduction: but to make this quite evident the following tables are given :--

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Table XXIII.—Rate of reduction of organs in the Kew plants from period to period; periods as before.

|          |               | Periods 1 to 2 | Perioda 2 to 3. | Periods 8 to 4. |
|----------|---------------|----------------|-----------------|-----------------|
|          | Sepals        | Pract          | ically nil.     | 0.10            |
| Kew, Old | ) Petals      | 0.10           | 0.19            | 071             |
| now, olu | ··· ) Stamens | 8.17           | 1.64            | 1.24            |
| •        | (Carpels      | 0.81           | 0.69            | 1.13            |
|          | . (Sepals     | Practi         | cally nil.      | 0.53            |
| Kow Nom  | Petals        | 0.18           | 0.17            | 0-86            |
| Kew, New | ··· ) Stamens | 3.68           | 1.81            | 1.07            |
|          | (Carpels      | 0.71           | 0.77            | 1 38            |
|          |               |                | <u> </u>        | 1 100           |

Table XXIV.—Rate of reduction of organs in the German races from period to period; periods as before.

| •            | •         | •   |  | Periods 1 to 2. | Periods 2 to 3.          |
|--------------|-----------|-----|--|-----------------|--------------------------|
|              | Sepals    | ·•• |  | Practically nil | Very small in-<br>crease |
| Bonn         | < Petals  | ••• |  | 0.79            | slight increase          |
| • •          | Stamens   | ••• |  | 1.06            | 0.89                     |
| • •          | Carpels   | ••• |  | 0.18            | 0.83                     |
| •            | ( Sepals  |     |  | 0.06            | increase of 0.04         |
| π            | Petals    |     |  | 0.22            | 021                      |
| Heidelberg . | " Stamens |     |  | 1.50            | increase of 0.08         |
|              | Carpels . | ••• |  | 0 05            | 0.12.                    |

It is easily seen that at the beginning of the flowering period a large reduction is made in the male organs; but that the reduction in other organs is chiefly at the end. The following table shows this excess of masculinity, which occurs at the beginning of the flowering period and is soon done away with after flowering has commenced.

Table XXV.—The percentage which the Stamens (fertile and infertile) make out the total of organs in the flowers, at different periods; periods as before.

| •          | •   |     | First period. | 2nd period. | 3rd period. | last period. |
|------------|-----|-----|---------------|-------------|-------------|--------------|
| Kew, Old   |     | ••• | 68.52         | 56.68       | 53.89       | 54.29        |
| Kew, New   | ••• | ••• | 61.16         | 54.98       | 51.68       | 58.77        |
| Bonn       |     |     | 60.68         |             | ·11         | 53.76        |
| Heidelberg | ••• | ••• | 61.13         |             | 93          | 58.55        |



It is impossible to dissociate the lack of nutrition felt, it must be believed, by the flowers of the worn out plants and the right of primogeniture spoken of. The power to satisfy the sepaline mood and the petaline mood and to form abundant stamens and carpels is in the nutrition of the flower.

On page 110, it was said that the moods jostle for their compliment of organs and that the older win by being already established when the younger begin to compete. There is a reservation to make in regard to this statement, to demonstrate which table XV has been recast in table XXVI. The latter table shows that in well and fairly well fed flowers say with 20 organs and more—the proportion falling to the carpellary mood is nearly constant, and that, as already made more or less evident, the staminal mood is residuary legatee for the extra vigour. Therefore for the richer flowers the vigour may be said to be roughly apportioned between on the one hand the sepaline, petaline and staminal moods which three jostle each other, and on the other hand the carpellary mood. In flowers poorer in organs than 20, the carpellary mood seems less prepared for and is subject in like degree to the staminal mood to the jostling for space.

Thus do the richer flowers appear more pre-apportioned than the poorer ones and therefore more knit together into an unit in the direction in which the flowers of most Phanerogams are knit together. We may easily believe that, given a flower with its moods so knit together that they vary together, the force of pressure of organ on organ in the bud may finish the shaping of the whole.

We can see that the flowers of the Kew race are a little more knitted into an unit than those of the German races. Thus the petals and sepals are much more often equal in number, and (as is shown on p. 103) when we get a flower of the Kew race departing in the sepals from normal by losing one, then the other organs are more likely to lose in proportion than in the German races. In short there is more see-sawing of mood on mood in the German races than in the Kew race.

However there are irregularities in the curves with which I have been dealing which cannot clearly be attributed to the struggling of the moods for satiety and their relative advantages from primogeniture. These are made obvious in the recast table XV which we now have in XXVI.

The chief irregularities of the Kew race are :---

(i)-Between 15 and 20 the stamens are above what would seem reasonable, rather more so at 15, 16, 18 and 19 than at 17 and 20.

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(ii)—At 23 the stamens are a little above what would seem reasonable, the carpels below.

I do not intend to attempt any explanation of these facts, but I must observe that if we cut out of our figures all flowers which have both their sepals and their petals other than five in number, the irregularities just noted almost disappear: and they do not disappear if we cut out only those flowers with sepals other than five: and this indicates that between 15 and 20 the stamens are able to add to their number from the petals. This is done in table XXVII.

| No.  | of  |                            | KEW,               | OLD.     |                    |               | Kew                | , NEW.        |                   |
|------|-----|----------------------------|--------------------|----------|--------------------|---------------|--------------------|---------------|-------------------|
| Orga |     | Sepals.                    | Petals.            | stamens. | Carpels.           | iepals.       | Petals.            | Stamens.      | Carpela           |
| 8    | ••• |                            |                    |          |                    | •••           | 87.50              | 12.50         | 50.00             |
| 9    |     | •••                        | •••                |          |                    |               | •••                | 1             | •••               |
| 0    | ••• |                            | •••                |          |                    | <b>2</b> 0.00 | 30 00              | 40 00         | 10.00             |
| 1    | ••• | 88 64                      | 15.91              | 22 78    | 22 <sup>.</sup> 73 |               | •••                | •••           | •••               |
| 2    | •   | 83.33                      | <b>25</b> .00      | 29.17    | 12.20              | <b>28</b> ·33 | 25.00              | <b>28·3</b> 3 | 18.33             |
| 8    | ••• | 81.32                      | <b>21</b> ·98      | 23 62    | <b>23</b> .08      | <b>28</b> .96 | 21.56              | 26·24         | 23.23             |
| 4    | ••• | <b>83</b> .70              | 20.76              | 24 83    | 21.20              | 82 14         | 20.36              | 26 43         | 21.07             |
| 5    | ••  | <b>81</b> ·31              | <b>21</b> ·01      | 26 87    | 20.80              | 28 57         | 22 <sup>.</sup> 88 | 27.63         | 21.43             |
| 6    | ••  | 80.08                      | 20.89              | 27.11    | 22 42              | 29·43         | 19 88              | 27.61         | 23.07             |
| 7    | ••• | <b>2</b> 8·95              | 21.89              | 26.70    | <b>22</b> ·45      | 28 64         | 19.57              | 27.48         | 24 30             |
| 8    | ••• | 27.51                      | <b>22</b> ·18      | 27 73    | 22.57              | 27.18         | 20.87              | 27 59         | 24.8              |
| 9    | ••• | · 26·22                    | 22 <sup>.</sup> 42 | 27.72    | 23.63              | 26·19         | 21.70              | <b>26</b> 70  | 25 4              |
| 0    | ••• | 24.96                      | 23.00              | 27.86    | × 24·66            | 25 00         | 22.59              | 26 72         | 25 68             |
| 1    | ••• | 23 73                      | 22.93              | 28.23    | 24 79              | 23.74         | 22.47              | 27.75         | 26 0              |
| 2    |     | <b>"2</b> 2`69             | 22.08              | 29.78    | 25.46              | 22.72         | 21.89              | <b>28</b> ·95 | 26 4              |
| 3    | ••• | 21.72                      | 21.28              | 31.85    | 24.86              | 21.64         | 21.15              | 31 02         | 26 '              |
| 24   | ••  | <b>2</b> 0 <sup>.</sup> 83 | 20.61              | 32.97    | 25.28              | 20 79         | 20 52              | 32 00         | 26 <sup>.</sup> 6 |
| 15   | ••• | 19·96                      | 19.71              | 34.23    | 25.78              | <b>20</b> 00  | 19.28              | 83.20         | 26.8              |
| 26   | ••• | 19·23                      | 18.97              | 36.70    | <b>25</b> ·09      | 19.19         | 19.19              | 34 87         | 26.70             |
| 27   | ••  | 18.47                      | 18.43              | 38 09    | 25.00              | 18.52         | 18.37              | 36 45         | <b>26.6</b>       |
| 28   |     | 17.81                      | 17.81              | 39.47    | 24.88              | 17 85         | 17.80              | 88.49         | 25 84             |
| 29   | ••• | 17.24                      | 17.18              | 41 70    | 23.87              | 17.21         | 17.24              | 89 79         | 25 7              |
| 10   | ••• | 16 <sup>.</sup> 66         | 16 66              | 42 59    | 24.07              | 16.66         | 16 53              | 40.95         | 25 8              |
| 1    | ••• | 16·13                      | 16.01              | 43 39    | 24.47              | 16.20         | 16.02              | 42 62         | 25 1              |
| 2    | ••• | 15.63                      | 15 63              | 44.86    | 23.88              | 15 62         | 15.43              | 44.14         | 24.8              |
| 13   |     | <b>15</b> ·16              | 15.16              | 45 87    | 23.84              | 15 15         | 14.72              | 45.89         | 24/2              |
| 34   |     | 14.70                      | 14.70              | 46.33    | 24 26              | 13.73         | 13.78              | 49.04         | 24 5              |
| 5    |     | 14.28                      | 14.28              | 45 71    | 25.71              | 14.29         | 14 29              | 45.71         | 25.7              |
| 6    | ••• |                            |                    |          |                    | 18.89         | 13 89              | 44.44         | 27.7              |

Table XXVI.—Percentuges of organs in the Kew race fulling to the different moods in flowers of various numbers of parts.

| put                     | 24   | 82-97 | 32-99 |   |
|-------------------------|------|-------|-------|---|
| 0.0 8110                | 87   | 31-85 | 31.84 |   |
| anwer, wur separs 0 ana | 22   | 29-78 | 29-72 |   |
|                         | . 2] | 28.53 | 28-38 | 1 |
| 3                       |      | 8     | 6     |   |

| put                                                                                                                                                                 |   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| als 5 (                                                                                                                                                             |   |
| h sep                                                                                                                                                               | - |
| , wit                                                                                                                                                               | - |
| mber                                                                                                                                                                |   |
| nu h                                                                                                                                                                |   |
| stals an<br>tals 5.                                                                                                                                                 |   |
| ind pe                                                                                                                                                              |   |
| sepals o                                                                                                                                                            |   |
| with<br>both                                                                                                                                                        |   |
| lovers<br>rd with                                                                                                                                                   |   |
| in J<br>r, an                                                                                                                                                       |   |
| present<br>y numbe                                                                                                                                                  |   |
| stamens present in flowers with sepals and petals an<br>petals any number, and with both sepals and petals 5.                                                       |   |
| e of                                                                                                                                                                |   |
| Table XXVII.—Percentage of stamens present in flowers with sepals and petals any number, with sepals 5 and<br>petals any number, and with both sepals and petals 5. |   |
| -11/4 X                                                                                                                                                             |   |
| Table X                                                                                                                                                             |   |

|          | : | Total organs. | ក្នុងរោធ.          | 4     | 12    | 16          | 17          | 18                | 19          | 20    | 2]          | 22    | 53            | 24    |
|----------|---|---------------|--------------------|-------|-------|-------------|-------------|-------------------|-------------|-------|-------------|-------|---------------|-------|
|          |   |               | (All flowers       | 24.83 | 26.87 | 27-11       |             | 26.70 27.73       | 27-72       | 27-36 | 28.53       | 29-78 | 31.85         | 82.97 |
| Kew, Old | : | :             | Flowers with K5    | 24.41 | 25.72 | 26.68       | 26.56       | 27-65             | 27-65 27-68 | 27.29 | 28.38       | 29-72 | <b>31</b> -84 | 32-99 |
| :        |   |               | Elowers with K6 C5 | :     | 13.33 | 25.00       | 21.27       | 23-61             | 24.64       | 25.66 | 27.76       | 29-22 | 31-36         | 36.62 |
|          |   |               | All flowers        | 26:43 | 27.62 | 19.42       | 27.48       | 27-59 26-70 26-72 | 26-70       | 26.72 | 27-75       | 28-95 | 31.02         | 32.00 |
| Кеw, New | : | :             | Flowers with K5    | 25-60 |       | 25.34 26.64 | 27.10 27-27 |                   | 26.65 26.72 |       | 27.61 28.95 | 28.95 | 30-93         | 31-92 |
|          |   |               | Flowers with K5 C5 |       | :     | :           | 14-71       | 22.22             | 23-80       | 25.16 | 26.57 28-44 | 28-44 | 30-43         | 81-44 |
|          |   |               |                    |       |       |             |             |                   | ]           |       |             |       |               |       |
|          |   |               | •                  |       |       |             |             | -                 |             |       |             | ·     |               |       |
|          |   |               |                    |       |       |             |             |                   |             |       |             |       |               | •     |

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Now it comes about from this tendency of stamens to gain below 20 in percentage at the expense of the petals, and from the tendency of the carpels above 20 to show satiety, that the excess of stamens over carpels is likely to be lenst at 20 and greator both above and below that number. Thus is the sex-proportion continually shifting along our curves.

Half staminodal petals were found in flowers of the Kew race as follows; it will be noticed that towards the end of the flowering period they appeared but one at a time in the flowers.

| • ••     | • •        | Period 1 | 2   | 3   | 4   |
|----------|------------|----------|-----|-----|-----|
| Kew, Old | { Number   | 7        | 30  | 20  | 19  |
|          | In flowers | 8        | 23  | 18  | 19  |
|          | Percentage | •47      | 76  | 79  | •75 |
| Kew, New | Number     | 9        | 16  | 11  | 14  |
|          | In flowers | 5        | •63 | 11  | 14  |
|          | Percentage | •72      | •63 | ·61 | ·85 |

Table XXVIII.—Half Staminodal petals.

Lastly I have an abnormality to notice; it consists of a lobing of the petals, one lobe being larger than the other. I found this abnormality in the Kew race to be fairly frequent and further I found it to be most abundant when the number of staminodes was highest.

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### Table XXIX.-Lobed petals.

|          | •              |     | •••  | Period 1         | 2                 | <sup>.</sup> 8   | - 4                       |
|----------|----------------|-----|------|------------------|-------------------|------------------|---------------------------|
| Kew, Old | /              | ••• | •••  | 10<br>2<br>605   | 80<br>17<br>•756  | 21<br>16<br>•839 | 19<br>9<br>·753           |
| Kow, New | . In flowers . | ••• | •••• | 5<br>. 3<br>.899 | -17<br>16<br>-674 | 18<br>12<br>•721 | 7<br>6<br>- • <b>4</b> 27 |

#### Summary.

I have shown first of all (Tables I-IV) how the flowers of *Ranunculus arvensis* in the races studied, vary; and how each set of organs varies in a different way; so that the curves which may be plotted for sepals, for petals, for stamens, and for carpels are unlike, most of them neither perfect Quetelet-Galton nor perfect half Galton curves.

I have shown secondly (Tables V-XIV) that a correlative increase and decrease occurs between the different sets of organs; so that when the stamens or any other set of organs depart from normal, it is probable that all other sets of organs will depart from normal, but chiefly those which follow. This is important as it indicates a division of vigour among the various sets, to be distinguished from an increase of the one at the expense of another.

In Tables XV-XVI and in the graphic representation of them on page 106 I have followed this up by showing how if we take the total number of organs in the flower as a measure of the vigour in the bud, we find that the ring of sepals, being the first-formed of the sets of organs, has the first pull on the vigour and is most likely to get a full complement, the ring of the petals being the next in order, is the next to be satisfied, and that stamens and carpels obtain the surplus the stamens chiefly so. I consider that the curves might with some little trouble be translated into formulae by a mathematician.

In Tables XVII-XX, I show that the power to produce organs diminishes as the plant grows weaker towards its death. Sometimes a slight recovery occurred at the very end: I do not feel justified in suggesting a cause for it. In Tables XXI and XXII, I show that sterility of the stameus increases towards the death of the plant.

In Tables XXIII-XXV, I show that the stamens—the organs which profit chiefly as we have seen by the extreme of vigour—lose by its loss; and consequently the flowers are most male when blossoming begins.

In Table XXVI, I have represented Table XV in a different way, so as to bring out sharply the division of vigour (*i.e.*, number of organs) between the different sets (moods). I can show by it that the flowers with more than 20 organs, there apparently is a setting aside *ab initio* of so much vigour for the carpellary mood, the staminal mood becoming residuary legatee; while in flowers with fewer than 20 organs the carpellary mood has to jostle with the preceding ones for its place. I show also by it and by the Table which follows it (XXVII), that there are certain irregularities which seem to be due to a borrowing of organs by the staminal set from the petals, which

#### 1902.] I. H. Burkill—Flower of Ranunculus arvensis.

borrowing as may be noticed in Table XII, (see p. 102) probably is a more common occurrence in the German races than in the Kew race.

The last two Tables (Nos. XXVIII and XXIX) show the relative abundance of abnormal petals and staminodal petals at different times in the plants flowering.

The net result of the investigation is that we have in *Ranunculus* arrensis just a little of what (for want of a better term) may be called foresight in the formation of the flower. We find the flower completed however scanty the nutrition for it may be; and, when the nutrition is adequate, provision is, it seems, made in good time for the carpellary mood. The next problem will be to show how far in such a flower as that of Parnassia or of any Phanerogam, the constancy of the carpels is due to provision made for them when the bud, first begins to be formed. Can the sepaline mood lead the carpellary by the nose, or is the carpellary not too important to the race to be without an assertiveness of its own ?

It is interesting to observe that the staminal mood forms a sort of residuary legatee to the three early moods of the flower; interesting because we not uncommonly find that mood to disappear under conditions which have generally been ascribed to something disadvantageous to the plant (see Willis, On Gynodiccism, 3rd paper, *Proc. Cambridge Phil. Soc.*, viii., 1893, p. 129).

We have sought in passing for any indication in the flower which might suggest that pressure of organ on organ exercises an influence in shaping the flower; and we found that flowers of 20 organs did come near to having the formula  $K_5C_5A_5G_5$ : and in Table V we saw  $K_4C_4$ and  $K_8C_8$  to be commoner combinations than  $K_4C_8$  or 5 (especially 5) and  $K_8 C_4$  or indeed any other number, and in Tables VI and VIII ten stamens to be commoner than nine or eleven in association with five sepals or with five petals. These observations do not suffice for building up any very definite statement.

It is equally advisable at present from these tabulations to make no statement regarding the possibility of female organs demanding per unit for their inception more nutriment than male organs.

One notices in regard to the variation of the flower of *Ranunculus arvensis* that it is always hungry, *i.e.*, always capable to taking in more organs; the hungriest of its moods is that for the formation of stamens, next that for the formation of carpels, thirdly that for petals and least hungry that for sepals.

Just as we find sepals to tend to be constant in number throughout our larger groups such as the Dicotyledons and Monocotyledons; petals to be constant in number in lesser groups; carpels to serve by their

#### 120 I. H. Burkill-Flower of Ranunculus arvensis. [No. 2,

constancy for the defining of orders, and stamens to be by number the least serviceable in the making of a classification of Phanerogams, so do we find sepals to have the greatest tendency to be constant in *Raminoulus arvensis*, petals next so, carpels in the third place and stamens last, *i.e.*, what we see in a broad view of the whole Phanerogamio Sub-Kingdom, we see again in the variation of the flower of this little weed.

I had intended to deal with variation in Nigella sativa and Delphinium Ajacis, when writing on Banunculus arcensis but my facts, are insufficient. They may, however, be said to be indicative of a reduction in number of all parts with age. For the present I withhold them.

My thanks are cordially given to the Cambridge Botanic Garden Syndicate for the facilities afforded to me in the University Garden, and to all who have helped me. The tedious operation of casting my figures into tables has in Calcutta occupied the time for several months of a clerk, Babu Kanai Lall Das.





GALLINULA PYRRIGRHOA (Blyth's Mauritus Specimen).



•

G. CHLOROPUS, G. GALEATA (Lake St. Clair.) G. GALEATA. G. PYRRHORHOA (Mauritius)

BILLS AND FRONTAL SHIELDS OF MOOR HENS.

·.

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PLATE V.







HYBRID BETWEEN GUINEA-FOWL AND COMMON FOWL.

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# NOTE ON THE PUBLICATIONS

OF THE

### ASIATIC SOCIETY.

The *Proceedings* of the Asiatic Society are issued ten times a year as soon as possible after the General Meetings which are held on the first Wednesday in every month in the year except September and October; they contain an account of the meeting with some of the shorter and less important papers read at it, while only titles or short resumés of the longer papers, which are subsequently published in the *Journal*, are given.

The Journal consists of three entirely distinct and separate volumes: Part I, containing papers relating to Philology, Antiquities, etc.; Part II, containing papers relating to Physical Science; and Part III devoted to Anthropology, Ethnology, etc.

Each Part is issued in four or five numbers, and the whole forms three complete volumes corresponding to the year of publication.

The Journal of the Asiatic Society was commenced in the year 1832, previous to which the papers read before the Society were published in a quarto periodical, entitled Asiatic Researches, of which twenty volumes were issued between the years 1788 and 1839.

The Journal was published regularly, one volume corresponding to each year from 1832 to 1864; in that year the division into two parts above-mentioned was made, and since that date two volumes have been issued regularly every year. From 1894 an additional volume, Part III, has been issued.

The Proceedings up to the year 1864, were bound up with the Journal, but since that date have been separately issued every year.

The following is a list of the Asiatic Society's publications relating to Physical Science, still in print, which can be obtained at the Society's Honse, No. 57, Park Street, Calcutta, or from the Society's Agents in London, Messrs. Luzac & Co., 46, Great Russell Street, W. C.; and from Mr. Otto Harrassowitz, Leipzig, Germany.

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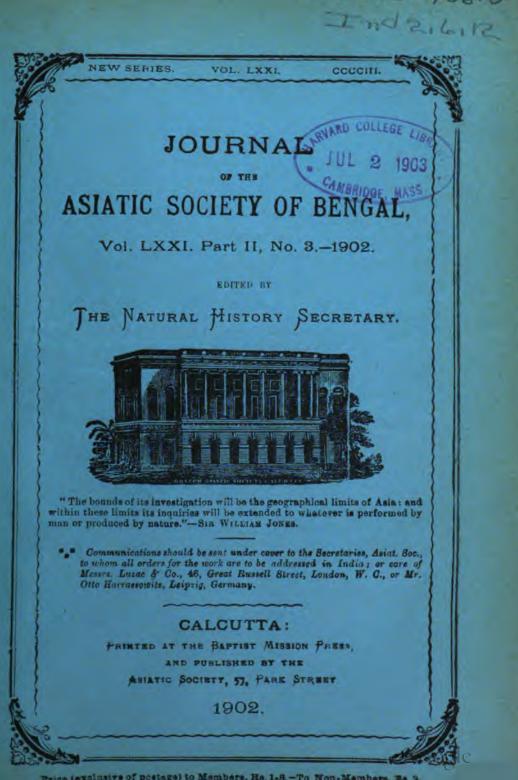
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1858 (5), 1861 (4), 1862 (5), 1864 (5), 1866 (7), 1867 (6), 1868 (6), 1869 (8), 1870 (8), 1871 (7), 1872 (8), 1873 (8), 1874 (8), 1875 (7), 1876 (7), 1877 (8), 1878 (8), 1879 (7), 1880 (8), 1881 (7), 1882 (6), 1883 (5), 1884 (6), 1885 (6), 1886 (8), 1887 (7), 1888 (7), 1889 (10), 1890 (9 and 2 Sapplts.), 1891 (7), 1892 (7 and Supplt.), 1893 (11), 1894 (8), 1895 (7), 1896 (8), 1897 (8), 1898 (8), 1899 (7), 1900 (7), @ 1/8 per No. to Members and @ 2/ per No. to Non-Members.

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### JOURNAL

#### OF THE

# ASIATIC SOCIETY OF BENGAL,

ERRATA IN LAST NUMBER. Page 102 column headed 6 for 67 read 167 , 17 , 117 , 116 , 36 , 38 , 3 Page 104 four lines from bottom column headed 5, where figure has dropped out, supply 5.88. Page 104 eight lines from bottom for 7.81 read 7.87. , 8.55 , 5.55.

are represented, such as Trochalopterum erythrolaema.

The collection is also noteworthy as containing examples of two species new to the Indian fauna, Père David's Babbler (*Babax lanceolatus*) and the Marsh Tit (*Parus palustris*). It has been deemed worth while to have these figured, on account of their interest from a distributional point of view. (See Plate VII).

The collection was made in that part of Burmah which is bounded on the west by the high range which divides the Pakokku and Minbu districts from the Chin Hills, and on the east by a parallel range which runs more or less due north and south, distant about 30 miles, and known locally under different names as the Pontaung

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## JOURNAL

#### OF THE

## ASIATIC SOCIETY OF BENGAL,

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Vol. LXXI. Part II.-NATURAL SCIENCE.

### No. III.—1902.

X.—On a collection of Birds from Upper Burmah.—By LIRUT. H. WOOD, R.E., and F. FINN, B.A., F.Z.S., Deputy Superintendent of the Indian Museum.

(With Plate VII.)

[Received 30th April. Read 7th May, 1902.]

In the following paper Lieut. Wood is responsible for the general introduction and remarks on localities where the birds were collected; while the birds have been identified and annotated at the Indian Museum by the Deputy Superintendent. Almost all of the specimens have been generously presented to that institution by Lieut. Wood, and the accession is a particularly welcome one, as several rare species are represented, such as *Trochalopterum erythrolaema*.

The collection is also noteworthy as containing examples of two species new to the Indian fauna, Père David's Babbler (*Babax lanceolatus*) and the Marsh Tit (*Parus palustris*). It has been deemed worth while to have these figured, on account of their interest from a distributional point of view. (See Plate VII).

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Nwamataung, Dudwataung, &c. Latitude 22° formed approximately the northern boundary and 20°15' the southern. A few specimens were however procured outside this tract while marching from Pakokku, the headquarters of the district of that name and situated on the River Irrawaddy.

The country within the boundaries described above is hilly, the average height of the eastern range being about 1,500 feet while some of the peaks are higher.

From this range the country is broken up by a number of smaller ranges, each slightly lower till the foot of the western range is reached. Along the foot of the eastern slopes of this range there is nearly always a large river which breaks through the range and then turns immediately due north or south and flows in this direction for some distance till it finds a low place in the eastern range through which it can pass. The Maw, Man, Salin and Mon Rivers are all met in this way. The western range is much higher than those to the east. The average height being about 5,000 to 6,000 feet, while Mount Victoria (the highest peak in Burmah, 10,300 feet) is one of the peaks on the range within the limits. The country is heavily forested except in the valleys of the main streams, where rice is principally growu.

Pakokku, Long. 95°10', Lat. 21°18', height 300 feet. The headquarters of the district of that name. It is situated on the west bank of the Irrawaddy River and is in the dry zone of Upper Burmah. Outside the cultivation which surrounds the town, the country is covered with scrub jungle.

Kanhlu, Long. 95°2', Lat. 21°17', height 400 feet. A small village on the Pakokku-Pauk Road; surrounding country scrub jungle.

**Pauk**, Long.  $94^{\circ}30'$ , Lat.  $21^{\circ}29'$ , height about 900 feet. A large village on the Pakokku-Tilin cart-road, situated just to the east of the first high range met with while marching west from the Irrawaddy River. The Yaw River flows about a mile to the east of the village. Outside the cultivation there is scrub jungle which gradually changes to forest as the hills are approached. It is on the west edge of the "dry zone"

Kyin, Long. 94°18', Lat. 21°37', height about 2,000 feet. A small village on the Pauk-Tilin cart-road, situated to the westward of the first high range which is met with while marching westward from the Irrawaddy River. A small area of cultivation surrounds the village; beyond this is dense forest.

Ta-hnyin-taung, Long. 94°15', Lat. 21°37', height about 2,500 feet. A spur running westwards from the first high range met with while going west from the Irrawaddy. This high range is known locally.

#### 1902.] H. Wood and F. Finn-Birds from Upper Burmah.

under a number of different names but it runs more or less along meridian of 94°20'. It is covered with dense forest.

Tilin, Long. 94°8', Lat. 20°13', height about 1,500 feet. A large village at the foot of the Chin Hills on the right bank of the Maw River. The cart-road to Gangaw from Pakokku passes through the village. Outside the cultivation the country is covered with dense jungle.

Man, Long. 94°17', Lat. 21°18', height about 1,500 feet. A small village on the Pauk-Pasok cart-road, situated to the west of the first high range met with while going west from the Irrawaddy. The village is surrounded by dense jungle outside the small patch of cultivation.

**Pontaung**, Long. 94<sup>2</sup>18', Lat. 21<sup>°20'</sup>, height 1,900 feet. The first high range met with while going west from the Irrawaddy; on the lower slopes the forest is principally bamboo, which gradually changes into timber trees (teak, etc.), as the range rises in height.

Laungshé, Long.  $94^{\circ}10'$ , Lat.  $21^{\circ}0'$ , height about 1,000 feet. A large village situated at the foot of the Chin Hills just where the Salin River breaks through. A good deal of rice is cultivated in the valley and it was on the cultivation that most of the birds were shot here.

Kanpetlet, Long. 94°0', Lat. 21°14', height 7,000 feet. At this place on the slopes of Mount Victoria the headquarters of the Pakokku Chin Hills are being built. It at present consists of two or three houses, while barracks for about 60 sepoys are being built. Mount Victoria, the summit of which is 10,300 feet, is the highest hill in Burmah and is the culminating point of the high range which runs from Manipur southwards more or less along the meridian of 94°. A long spur emanates from the summit running in an easterly direction, and it is on this spur that Kanpetlet is situated. In the valleys the forest is very dense, while on the spurs there are large open spots covered with grass alternating with tracts of fairly open fir forest. Birds labelled Mount Victoria were shot on the way up to Kanpetlet from Saw, the village at the foot of the spur.

Dudawtaung, Long. 94°18', Lat. 21°5', height about 2,000 feet. A range of hills about 2,000 feet high running north and south, the first high one that is met while marching west from the Irrawaddy River. It is covered with fairly dense forest.

*Yinkwètaung*, Long. 93°58', Lat. 20°44', height 5,500 feet. The local name of one of the spurs which run eastward from the high range which forms the boundary between Pakokku district and the Chin Hills. Near the summit the spurs are bare of trees and covered with grass. In the valleys and on spurs below about 5,000 feet there is dense jungle.

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Nwamataung, Loug. 94°18', Lat. 20°4', height about 2,500 feet. A local name of the same range which to the north is known as Dudawtaung.

Salin, Long. 94°44', Lat. 20°35', height 250 feet. A large village on the Salin River about 10 miles on the west of the Irrawaddy River. It is in the dry zone and outside the cultivation is scrub jungle.

Sidôktaya, Long. 94'15', Lat. 20'25', height 2,000 feet. A large village situated at the foot of the Chin Hills on the bank of the river Mon. A large area of cultivation lies to the east of the village, while to the westward dense jungle comes very close.

Dalet Choung, Long. 94°0', Lat. 20°10', height 300 feet. A river which rises in the Arakan Yomas and flows due south reaching the sea between Akyab and Kyaukpyu. The surrounding hills are all densely covered with bamboo jungle.

#### Family Corvidæ.

UBOCISSA OCCIPITALIS. Red-billed Blue Magpie.

Two, Laungshé, January 11th, 1902; one, Kyin Village, November 30th, 1901.

DENDROCITTA RUFA. Indian Tree-pie.

One, Laungshé, January 12th, 1902; one, Man, December 25th, 1901.

CRYPSIRHINA CUCULLATA. Hooded Racket-tailed Magpie.

One, Sidôktaya, February 14th, 1902.

GARRULUS OATESI. Indo-Chinese Jay.

One, Kanpetlet, January 3rd, 1902.

PABUS PALUSTRIS. Marsh-Tit.

One, Kanpetlet, January 14th, 1902.

This specimen undoubtedly belongs to one of the races of *P. palustris.* The dimensions are rather large, the length being 4.9 inches, wing 2.5, tail 2.1, bill from gape .4, and shank nearly .6. The colour above is olive grey, or drab; below a dirty drab-white. The cap and nape are glossy black, and the sides of head and neck pure white; the throat black with white tips to the feathers. The bill and feet are greyish black in the skin.

[The specimen agrees perfectly with some Chinese specimens of *P. palustris*, recently procured by Captain Walton, I.M.S.]

#### Family Crateropodidæ.

GABRULAX LEUCOLOPHUS, Himalayan White-Crested Laughing-Thrush. Two, Laungshé, January 12th, 1902. GARRULAX PECTORALIS. Black-gorgeted Laughing-Thrush.

#### 1902.] H. Wood and F. Finn-Birds from Upper Burmah.

One, Dudawtaung, December 26th, 1901; one, Laungshé, January 11th, 1902. The latter has the under-surface buff throughout up to the chiu. Both have the light tips to the tail-feathers pure white.

GARBULAX MONILIGER. Necklaced Laughing-Thrush.

One, Ta-hnyin-taung, December 10th, 1901.

The ear-coverts of this bird are *entirely* black; tips of tail pure white.

BABAX LANCEOLATUS. Père David's Streaked Babbler.

One, Kanpetlet, January 4th, 1902.

As this bird does not seem to be well known, I give a description of the specimen. Length about  $11\frac{1}{4}$  inches; wing 3'8; tail 5; bill from gape 1'1; shank at front 1'2.

Plumage striated, with the exception of the visible parts of the wings and tail, which are plain olive, as also the upper tail-coverts. Centres of the feathers above blackish, shading into chestnut on each side, with the outsides edged on the neck with creamy white and on , the back with olive. Lores, ear-coverts, and eye-brow, white slightly mixed with black; a strong black moustache running into a mottled black-and-white patch behind the ear-coverts. Under-surface creamy white streaked with black, the black streaks getting finer upwards and fading out on the throat, and becoming bordered with chestnut on the flanks; lower tail-coverts plain buff.

From the descriptions and figures of David and Oustalet (Oiseaux de Chine) J. Verreaux (Nouv. Arch. du Museum, Bull. VII, 1871) and Dr. R. B. Sharpe (B.M. Cat. Birds, Vol. VII.), *Bubax lanceolatus* would appear to have a uniformly chestnut head, the dorsal plumage edged with grey, not olive, and the ventral surface less striated than in our bird, in which also the tarsi seem considerably shorter.

At the same time, without specimens for comparison, I do not like to regard the present bird as deserving of specific distinction; if it be so I would propose the name of *Babax woodi* for it.

TROCHALOPTERUM ERYTHROLEMA. Hume's Laughing-Thrush.

Two, Yinkwètaung, January 19th, 1902; oue, same locality, January 20th, 1902.

TROCHALOPTEBUM VIRGATUM. Manipur Striated Laughing-Thrush.

One, Kanpetlet, January 3rd, 1902; one, Kanpetlet, January 4th, 1902.

ARGYA GULARIS. White-throated Babbler. Two, Pakokku, November 19th, 1901. MYIOPHONEUS TEMMINCKII. Himalayan Whistling-Thrush. One, Yinkwètaung, January 27th, 1902. LIOPTILA GRACILIS. Grey Sibia. 125

One, Yinkwètaung, January 18th, 1902; two, January 27th, 1902; one without date or locality.

AEGITHINA TIPHIA. Common Iora.

One, Pakokku, November 21st, 1901; one, Pauk, November 27th, 1901; one no date or locality.

CHLOROPSIS AURIFRONS. Gold-fronted Chloropsis.

One, Ta-hnyin-taung, November 8th, 1901; one, same locality, December 2nd, 1901; one, same locality, December 10th; one, Man, December 14th; one, same locality, December 20th; one, same locality, December 24th; one, Dudawtaung, January 7th, 1902.

CHLOROPSIS CHLOROCEPHALA. Burmese Chloropsis.

One, Ta-hnyiu-taung, no date; one, same locality, December 3rd, 1901.

HYPSIPETES PSABOIDES. Himalayan Black Bulbul.

One, Yinkwètaung, January 29th, 1902.

HEMIXUS MACLELLANDI. Rufous-bellied Bulbul.

One, Yinkwètaung, November 2nd, 1901; two, same locality, January 18th, 1902; one, same locality, January 19th; one, same locality, January 27th; one, same locality, no date available.

ALCUBUS STRIATUS. Striated Green Bulbul.

One, Yinkwetaung, January 20th, 1902.

MOLPASTES BURMANICUS. Burmese Red-crested Bulbul.

One, Tilin, December 12th, 1901.

XANTHIXUS FLAVESCENS. Blyth's Bulbul.

One Kanpetlet, January 4th, 1901.

OTOCOMPSA FLAVIVENTRIS. Black-crested Yellow Bulbul.

One, no data; one, Ta-hnyin-taung, December 3rd, 1901; one, same locality, December 6th.

#### Family Sittidæ.

SITTA HIMALAYENSIS. White-tailed Nuthatch. One, Yinkwètaung, January 20th, 1902. SITTA NAGAENSIS. Austen's Nuthatch. One, Kanpetlet, January 4th, 1902. SITTA FRONTALIS. Velvet-fronted Blue Nuthatch.

Two, Ta-hnyin-taung, December 7th, 1901; one, Man, December 25th.

#### Family Dicruridse.

DICBURUS ATER. Black Drongo.

One, Pakokku, November 23rd, 1901 ; a decidedly small specimen. DICRURUS CINERACEUS. Grey Drongo.

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One, Ta-hnyin-taung, December 8th, 1901.

BHRINGA REMIFER. Lesser Racket-tailed Drongo.

One, Ta-hnyin-taung, December 8th; one, same locality, December 10th.

DISSEMUBUS PARADISEUS. Larger Racket-tailed Drongo.

One, Ta-hnyin-taung, December 5th, 1901; one, no locality.

#### Family Lanidæ.

LANIUS COLLUBIOIDES. Burmese Shrike.

One, Pakokku, November 19th, 1901; one, Yinkwetaung, February 2nd, 1902. The first specimen has the *two* outer pairs of tail-feathers white with black shafts, and the *next* pair white with a long black patch on the inner web, the rest being black tipped with white; the underparts are also very pale, creamy white in fact. The dimensions are also smaller than those given in the *Fauna of British India*, Vol. I, p. 463. The crown and nape are dark ashy, and the forehead and lores black. The second has the tail normally coloured, and pale fulvous under-parts.

TEPHBODORNIS PELVICUS. Nepal Wood-shrike.

One, Ta-hnyin-taung, December, 1901.

PERICROCOTUS FRATEBCULUS. Burmese Scarlet Minivet.

One, Ta-hnyin-taung, November 4th, 1901; two, same locality December 4th; one, Pauk, November 27th, 1901; one, Mt. Victoria, December 80th; one, Kanpetlet, January 4th, 1902.

PERICROCOTUS BREVIROSTRIS. Short-billed Minivet.

One, no locality or date; one, Kanpetlet, January 4th, 1902.

PEBICROCOTUS PEREGRINUS. Small Minivet.

Three, Man, December 22nd, 1901; one, Pauk-Tilin Road, November 29th, 1901.

#### Family Oriolidæ.

ORIOLUS TENUIROSTRIS. Burmese Black-naped Oriole.

One, Pauk, November 27th, 1901.

ORIOLUS MELANOCEPHALUS. Indian Black-headed Oriole.

One, Ta-huyin-taung, December 4th, 1901; one, same locality, December 8th; one, Pakokku, 22nd November; one, Tanksoh, February 9th, 1902; one, Man, December 22nd, 1901; one, Dudawtaung, January 7th, 1901.

#### Family Sturnidæ.

GEACULIPICA BURMANICA. Jerdon's Mynah. One, Pakokku, November 20th, 1901; one, no date. The birds referred to Sturnia nemoricola in J. A. S. B. 1900, pt. II. p. 116 are, I find, of this species; at least the four specimens kindly presented by Colonel Bingham to the Museum belong to it.

#### Family Muscicapids.

CYORNIS RUBBCULOIDES. Blue-throated Flycatcher.

One, Ta-hnyin-taung, December 2nd, 1901; one, Pontaung, February 2nd, 1902.

CULICICAPA CKTLONENSIS. Grey-headed Flycatcher. One, Ta-hnyin-taung, December 8th, 1901. RHIPIDURA ALBIFRONTATA. White-browed Fantail Flycatcher. One, Pakokku, November 20th, 1901.

#### Family Turdidæ.

PRATINCOLA CAPRATA. Common Pied Bush-chat.

Three, Pakokku, November 19th, 20th and 21st, respectively; one, Laungshé, January 12th, 1902.

All have the black plumage fringed throughout with fulvous,\_ except the bird killed on November 21st, which shows no such edgings at all except a few barely perceptible specks on the belly.

COPSYCHUS SAULARIS. Magpie-Robin.

One, Pakokku, November 21st, 1901.

This is by plumage a female, and has the fulvous parts of the under-surface finely cross-barred with a lighter shade.

PETROPHILA EBYTHROGASTRA. Blue-headed Rock-Thrush.

One, Kanpetlet, January 3rd, 1902; two, same locality, following day.

PETROPHILA SOLITABIA. Eastern Blue Rock-Thrush.

One, Pakokku, November 11th, 1901.

Not typical, but only showing a little chestnut on the undertail coverts.

PETROPHILA CYANUS, Western Blue Rock-Thrush.

One, Dudawtaung, January 7th, 1902; one, Laungshé, January 11th; one, Nwamataung, February 2nd, 1902. The last shows one red under-tail covert.

OREOCINCLA DAUMA. Small-billed Mountain-Thrush. One, Dudawtaung, January 8th, 1902.

#### Family Fringillidse.

PASSER FLAVEOLUS. Pegu House-Sparrow.

One, Pakokku, November 21st, 1901; one, same locality, November 23rd. 1902.]

#### Family Nectariniidæ.

ABACHNECHTHRA ASIATICA. Purple Sun-bird. One, Salin, February 4th, 1902.

#### Family Picidæ.

GECINUS OCCIPITALIS. Black-naped Green Woodpecker.

One, Pakokku, November 19th, 1901; one, Man, December 24th.

HYPOPICUS HYPERYTHRUS. Rufous-bellied Pied Woodpecker.

One, Kanpetlet, January 4th, 1902.

INNGIPICUS CANICAPILLUS. Burmese Pigmy Woodpecker.

One, Ta-hnyin-taung, December 4th, 1901; one, same locality, December 7th; one, Dudawtaung, January 7th, 1902.

TIGA SHOREI. Himalayan Golden-backed Three-toed Woodpecker.

Two, Ta hnyin-taung, killed on December 5th and 7th, respectively. Both have the rudimentary hallux previously described by me as characteristic of this species. (J. A. S. B. 1899, pt. II. p. 242).

CHRYSOCOLAPTES GUTTICRISTATUS. Tickell's Golden-backed Woodpecker. One, Ta-hnyin-taung, December 11th, 1901.

This specimen, a male by plumage, has the red of the rump running right up to the shoulders, but shows none on the wings or scapulars.

#### Family Capitonidæ.

THEREICERYX LINEATUS. Lineated Barbet.

Three, Ta-hnyin-taung, December 2nd, 4th and 5th, respectively; one. Pontaung, December 21st.

CYANOPS ASIATICA. Blue-throated Barbet. One, Ta-hnyin-taung, December 4th, 1901.

#### Family Coraciidæ.

CORACIAS AFFINIS. Burmese Roller.

One, Pakokku, November 20th, 1901; two, Laungshé, January 12th, 1902; one, Man, December 26th, 1901.

#### Family Meropidæ.

MEROPS VIRIDIS. Common Indian Bee-eater. One, Pakokku, November 20th, 1901; one, no date. Both very rufous on head, nape and upper back.

#### Family Alcedinids.

CERYLE VARIA. Indian Pied Kingfisher. One, Pakokku—Pagan Road, November 25th, 1901. J. 11. 17



#### HALCYON SMYRNENSIS. White-breasted Kingfisher.

One, Pakokku, November 20th, 1901; one, Kanhla, November 21st; one, Laungshé, January 12th, 1902.

#### Family Bucerotidæ.

ANTHRACOCEROS ALBIBOSTRIS. Indo-Burmese Pied Hornbill.

One, Dalet Choung, February 27th, 1902. A small specimen, but rather over the measurements given in the Fauna of British India for the smaller race of this species.

#### Family Upupids.

UPUPA INDICA. Indian Hoopoe. One, Ta-hnyin taung, December 6th, 1901.

#### Family **Cuculidæ**.

RHOPODYTES TRISTIS. Large Green-billed Malkoha.

Two, Kyin Village, November 30th, 1901; two, of which the data are illegible, all the specimens being very greasy, and mostly unfit to keep. All possess eyelashes, although the genus is stated (F.B.I. Birds, Vol. III, p. 280), to want these.

CENTROPUS SINENSIS. Common Coucal or Orow-Pheasant. One, Man, December 6th, 1901.

#### Family Psittacidæ.

PALEORNIS TORQUATUS. Rose-ringed Paroquet.

One, Pakokku, November 22nd, 1901; one, Pauk-Tilin Road, November 29th.

PALEORNIS FASCIATUS. Red-breasted Paroquet. One, Pakokku, November 21st, 1901.

#### Family Asionidæ.

ATHENE BRAMA. Spotted Owlet.

One, Pakokku, November 19th, 1901.

#### Family **Falconidæ**.

SPILOBNIS CHEELA. Crested Serpent-Eagle.

A pair of feet with a few feathers attached clearly belong to this species.

BUTASTUR TEESA. White-eyed Buzsard-Eagle. One, Pakokku-Pauk, November 24th, 1901. HALIASTUR INDUS. Brahminy Kite. One, Pakokku, November 22nd, 1901.

FALCO JUGGER: The Laggar Falcon. One, Pakokku, November 22nd, 1901. A beautiful adult example of this species. TINNUNCULUS ALAUDARIUS. Kestrel. One specimen without data. MICROHIERAX EUTOLMUS. Red-legged Falconet. One, Ta-hnyin-taung, December 9th, 1901.

#### Family Phasianidæ.

PHASIANUS HUMIE. Mrs. Hume's Pheasant.

One specimen obtained at Kanpetlet, January 2nd, 1902. This is by plumage a male, and is of the typical Manipur form with steel-blue rump-feathers narrowly edged and barred with white. Only the front of the neck, however, is steely-black, the sides and back of the neck being steely-grey, contrasting with the colour of the throat and breast.

GENNAUS sp. ?

One female specimen obtained at Yinkwétaung on February 2nd 1902, most closely agrees with Mr. Oates' description of what he calls (Manual of the Game-Birds of India, Vol. I, p. 365,) the North-Arrakan Silver Pheasant; but it has the *two* centre pairs of tail feathers chestnut with dark brown pencillings, the rest being black with chestnut pencillings progressively diminishing to the outermost feathers.

ABBORICOLA INTERMEDIA. Arrakan Hill Partridge. One, Yinkwètaung, January 27th, 1901.

#### Family Charadriidæ.

HOPLOPTERUS VENTRALIS. Indian Spur-winged Lapwing. One, Kanhla, November 24th, 1901. AEGIALITIS DUBIA. Little Ringed Plover. One, Pakokku, November 11th, 1901. 131

XI.—Notes on Animals observed at the Alipore Zoological Garden, No. 2. A brief note on the "Doctrine of Telegony" with reference to facts observed in the Zoological Gardens, Calcutta.—By RAI R. B. SANYAL, BAHADUE, Superintendent.

[Received April 29th. Read May 7th, 1902.]

The doctrine of telegony as it is understood in Europe and Australia is practically unknown in India.

There is a vague notion among some of the cattle-breeders, especially in parts of Bengal and Behar, that when first covered, a heifer ought to have a high-class bull for its mate.

Be that as it may, no scientific experiments, as far as I am aware have ever been undertaken in India to test the correctness or otherwise of the doctrine to which I have alluded.

I have ventured to bring the following facts to the notice of the Society, not so much for the sake of throwing any light on the subject, especially as Professor Cossar Ewart has already, after a series of careful experiments, proved that there is no equiue telegony, but as they were the results of experiments in which a most interesting species of wild cattle was concerned.

In 1898 the Zoological Gardens, Calcutta, came in possession of a small herd of Bantengs (*Bos sondaicus* Müller and Schleg.) a species of wild cattle which mostly inhabit the plains of Burma and the Malay Peninsula and the islands of Borneo, Java, and Bali. One of the heifers was covered by an ordinary country male, which, though not a Brahmin bull as it is ordinarily understood in India, was a sturdy young bull of a very superior character. The offspring of this pairing was a healthy brindled male calf, which already promises to be a fine bull. The opportunity which this occurrence presented of examining the theory of telegony by futher experiments was duly taken advantage of, and the dam of the brindled calf was mated, in proper time, with a healthy bull of its own species. The offspring of this union was a pure bred Banteng calf without any traces of the previous strain. The same cow has had a second pure-bred calf lately.

#### XII.—Note on a disputed point in the Life-History of Helopeltis theivora. —By HAROLD H. MANN, B.Sc.

#### [Received April 80th; Read May 7th, 1902.]

As is well known, *Helopeltis theivora*,—the "Tea Bug of Assam" as it was called by Mr. Wood-Mason, the "Mosquito Blight" as it is generally termed—is the most alarming pest which has yet appeared on tea cultivated in India. It causes the more disquietude as it tends to increase as years go by,—fluctuating according to season, but generally increasing, and invading new areas. During 1901, which was a particularly bad year in almost all districts subject to the pest, a very moderate estimate gives seven lakhs of rupees as the nett loss to the Indian Tea Industry from this cause alone.

Though we have a knowledge, thanks to Peal,\* Wood-Mason,† Dudgeon,‡ Watt§ and Green,¶ of the general life-history of the insect from the egg to the adult stage, yet there remain several points which have been very obscure. Of these the most important is the question as to what becomes of the insect during the time when it apparently disappears from the tea bush. So complete is this disappearance, as a rule, that most planters living in affected districts in North-East India have hardly ever seen a single insect during January, February and March. Mr. Dudgeon has suggested that it hibernates in the ground, but offers no evidence for his position, and declares frankly that he had not been able to verify his conjecture. It has also been supposed that hibernation takes place in water and swamps, but again, not a scrap of evidence in favour of the view exists, and the same may be said of the very general idea among tea planters that in the cold weather the *Helopeltis* goes on to various jungle trees.

With a view of acquiring information on this point, I have spent a considerable time in January, February and March of the present year in two of the districts most affected by the pest—the Darjeeling-Terai, and Cachar—at a period when the insect was supposed to be hibernating. As a result I have come to conclusions of which the following is a summary.

The Helopeltis theivora can be found on the tea bush in every stage of development during every period of the year. The cold weather

- \* Tea Cyclopedia, 1881.
- † The Tea Bug of Assam, 1884.
- ‡ Indian Museum Notes. Vol. III pp. 83-38.
- § The Pests and Blights of the Tea Plant 1898.
- ¶ Royal Botanic Gardens, Ceylon. Circular, No. 21 (1st Series), 1901.

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kills off the bulk of the mature insects and practically all the larve. but at all times sufficient remain to carry on the pest to the next season, and in addition the bushes are full of eggs. These latter were found not only in the usual position on the young shoot, but also at a much lower part of the bush than has previously been noticed, embedded in the usual fashion in the midrib of the large mature leaves. The larvæ were found on 11th January in small numbers on unpruned and sheltered bushes, then forming about  $2\frac{1}{2}$  per cent of the total number of insects caught. By 12th February, however, a very different proportion of adults and larvæ were obtained, and now instead of  $2\frac{1}{2}$  per cent. the larvæ formed 80 per cent. of the total catch. This proportion was approximately kept up during several weeks from that date. The difficulty in obtaining evidence of their presence at this time is due to their attacking almost entirely the slightly shaded young leaves, the surface growth being rarely injured in the early part of the year.

The insect could, further, not be found on any jungle plant at this time. Though jungle of very miscellaneous character was system atically searched both by myself and by the children who are regularly catching the insect, and who are extremely expert at the work, not a single one was discovered in any form.

It appears, therefore, evident that there is, from present knowledge, no need to assume a hibernating stage at all for Helopeltis theivora, and that the insects remain and can be found in every stage of growth from the egg to the mature female full of eggs, in the tea-bush, at all times of the year. Whether the egg found low down in the bush, as described above, can be considered as a special hibernating egg, I can hardly say, but there certainly was no difference in structure or in method of deposition from that usual during the regular season. Inasmuch, then, as there is absolutely no evidence of the cold weather being passed by the insect in the soil, in water, or on other trees, and furthermore, as careful observation can always detect the insects and their eggs on tea bushes in affected districts, there is no need to imagine any hibernation stage at all in India, and beyond a certain retardation in development due to the reduced temperature, the reproduction of the insect may be considered to take place in a similar manner throughout the year, and to be carried out on the tea bush itself during the whole period.

These observations have a practical interest, and may lead to a sound method of attempting to deal with the pest, and experiments in this direction are now in progress.

#### F. Finn-On a pair of Abnormal Deer Horns.

#### XIII.—On a pair of Abnormal Deer Horns.—By F. FINN, B.A., F.Z.S., Deputy Superintendent, Indian Museum.

#### [Received May 28th; Read June 5th, 1902.]

I am indebted to His Highness the Maharajah of Cooch Behar, and to Mr. David Ezra (who procured me the loan of them) for the opportunity of exhibiting the very remarkable pair of antlers figured below.

As will be seen they resemble those of the Sambhar (*Cercus unicolor*) in general appearance and in their rough and deeply furrowed surface; but the terminations are much more branched than is usual in this species, which has only two terminal tines. In the present specimen there are no less than five terminal points, and the two horns are not at all alike, the branch representing the longer terminal tine in the normal horn being palmate or flattened in the left horn of this pair. (See figure on page 135.)

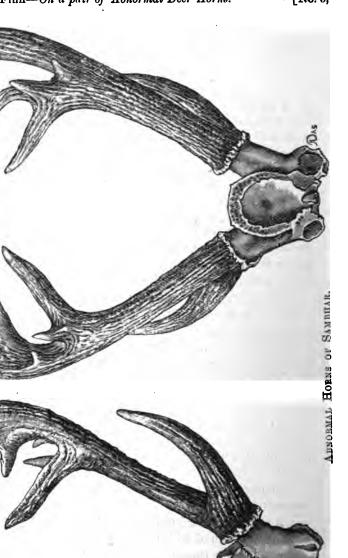
The number of points in this specimen no doubt accounts for the statement that was made to me by Mr. Ezra, that the animal which bore the horns was a hybrid between the Sambhar and the Barasingh (*Cervus duvauceli*). But in the absence of any information as to the appearance of the rest of this stag's body, I am inclined to put the specimen down as an abnormal Sambhar, some Sambhar horns in the collection exhibited in the Mammal Gallery also showing supernumerary points, though not to this extent. A very fine head in the Asiatic Society's collection, alluded to by Mr. W. L. Sclater in his pamphlet "Notes on Indian Horned Game," has nine points, both terminal times of the right horn and the anterior or outer terminal time of the left, being bifurcated.

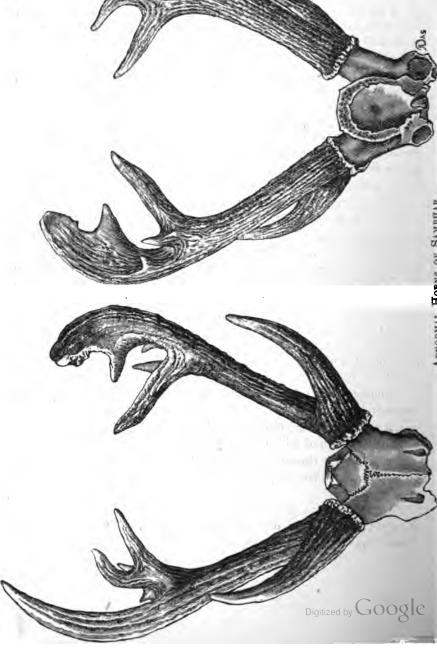
Another has a third terminal tine on the right horn, directed downwards and backwards.

A third has a snag to the brow tine of the right horn, the terminal tines of the beam of which are very small.

A fourth has three small snags at the base of the beam of the right horn, and a small accessory snag on the large outer terminal tine of the left.

It is noteworthy that in all these cases the excess of points affects the right horn; but in one specimen, the single extra point, a very small one, is on the inner terminal time of the left.





#### 1902.] R. B. Sanyal Bahadur-Common Palm Squirrel.

Mr. Ezra informs me that the present animal was killed in the Maharajah's territories six years ago.

XIV.—Notes on Animals observed at the Alipore Zoological Garden. No. III. Melanic specimens of Common Palm Squirrel (Sciurus palmarum, Linn.)—By RAI R. B. SANYÁL BAHADUR, Superintendent, Alipore Zoological Garden.

#### [Read June 4th, 1902.]

Squirrels, it is well known, are subject to great diversity in size, form and colour. The upper surface of the body of the large Indian Squirrel (Sciurus indicus, Erxl.) is usually of a marcon red colour, but darker, almost black individuals with thicker coats are not uncommon. Apart from their seasonal dimorphism, no two specimens of the Sciurus bicolor of Sparrmann are alike; and it is no wonder that the species proved a puzzle to Desmarest, Horsfield, Is. Geoff. St. Hilaire, and other naturalists of classic repute, each of whom described it under a different name. Palm Squirrels (Sciurus palmarum, Linu.) so common and abundant in Bengal, North-Western Provinces, the Punjab, and Central India, are also remarkable for great diversity of form and colour, and this tendency to variation in colour, which is so characteristic of the genus, has led, in the case of the Palm squirrels, to an increase in the deposition of pigment, resulting in the production of a definite melanic form.

Melanism as a common colour phenomenon is well known to naturalists, but as far as I remember, I have seen no case of complete melanism in squirrels recorded in the literature of the genus, and I have therefore ventured to exhibit to the Society a melanic specimen of a Palm squirrel which lately came under my observation. The following notes sent to me by Haji Mahammud Mustapha Khan of Aligarh, the donor of the animals, will, I hope, be found interesting:

"Some time in December last [1901], so far as I can recollect, my bearer came to me in Aligarh and said he had seen four or five black squirrels in the jungle at Burhegaon. Burhegaon is the headquarter village of my estate, in Tahsil Atrauli in this district, and lies about 25 miles east from Aligarh. I told him to try and catch them, and explained to him how best to do it by the usual basket snare. About a fortnight later, when I had gone to stay for a time at Burhegaon, he brought one of the squirrels to me. A couple of weeks after that he brought a second one. So far as I can judge they seem to be

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a male and a female. There was a third, he told me, which eluded capture on the second occasion. They seemed to me uncommon, and remembering to have heard, at a District Board Meeting, that the Secretary of the Zoological Gardens at Alipur would be glad of help in procuring interesting additions to his family, I mentioned the matter to Mr. Brownrigg, then Collector of the District. I have always taken an interest in animals, but had never seen any black squirrels like these before. I am told that there are still, perhaps, three or four more at large in the jungle where this pair came from, but they are now very wild, and do not allow any one to approach them. I am also informed, by those who have seen them, that these black squirrels live apart by themselves on separate trees, and do not associate with their less distinguished grey-mantled brethren. The boycott is probably mutual. I have no reason to think that they came to Burhegaon from any outside source. So far as I can see they are a freak of nature."

It would be interesting to observe other forms of animal life in the jungle in which these melanic squirrels were found, and to note whether there is any preponderance of black in them also. The fact, if proved in the affirmative, will give additional support to the theory of colour change induced by environmental causes.

This is, however, not the first time that melanic squirrels are exhibited in the Calcutta Zoological Garden. In 1877, a couple of them were obtained from Assam, and lived for about a year.

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1902.] R. D. Oldham-Tidal Periodicity in Earthquakes of Assam., 139

On Tidal Periodicity in the Earthquakes of Assam.—By R. D. OLDHAM, Superintendent, Geological Survey of India.

(Communicated by permission of the Director of the Geological Survey of India). [Received July 21st, Read August 6th, 1902.]

I.-INTRODUCTORY.

Ever since earthquakes were first studied there have been repeated and persistent attempts to trace the action of the sun, the moon, and the planets in producing them, or at the least in influencing their relative frequency. Mallet, from the discussion of his great earthquake catalogue<sup>1</sup>, found that there was a marked periodicity, which caused earthquakes to have a maximum frequency towards the end of each century, with a minor, but nearly as great, maximum a little before the middle; and, more recently, Dr. A. Cancani has remarked a similar peculiarity in the earthquakes of Italy.<sup>2</sup> Periods of this length, however, have no direct and obvious connection with the movements of the heavenly bodies, and more interest attaches to variations of shorter periods. Perrey, and following him Mallet,<sup>8</sup> believed that they had detected such variations, and that the frequency of earthquakes showed a relation to the distance of the sun and the moon from the earth, and to their relative positions in the heavens, at the syzygies and quadratures. As a result of this careful investigation it had been generally accepted that earthquakes were more frequent during winter than in summer and during the night than during the day.

In 1889 the subject was again attacked by M. F. deMontessus de Ballore,<sup>4</sup> who started by preparing a catalogue of 45,000 earthquakes. From this he proceeded to discuss the diurnal periodicity, and found that though each individual list and record showed a distinct periodicity, there was no agreement among them and that the larger the number of shocks taken the more uniform became the resulting distribution of earthquakes throughout the day and night. In a subsequent paper<sup>5</sup> he applied the same treatment to the seasonal periodicity with a similar result and came to the conclusion that there was no real variation in the frequency of earthquakes, which he regarded as a purely geological phenomenon, unaffected by either astronomical or meteorological influences.

About the same time Dr. Davison began his investigation of

<sup>&</sup>lt;sup>1</sup> Rep. Brit. Ass., xxviiii, (1858).

<sup>&</sup>lt;sup>8</sup> Boll. Soc. Sismol. Ital. vii, 205-209 (1901).

<sup>&</sup>lt;sup>8</sup> Brit. Ass. Rep., xxviii, (1858).

Archives des Sciences Physiques et Naturelles, 3. Ser., xxii, 409, (1889).

<sup>&</sup>lt;sup>5</sup> Archives des Sciences Physiques et Naturelles, 3. Ser., xxv, 504, (1891).

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earthquake frequency, and in a laborious paper,<sup>1</sup> on the annual and semiannual periodicity of earthquakes, came to the conclusion that, treating each region separately, there was a distinct variation in frequency, which was in excess of that which might be expected if the occurrence of earthquakes was in no way connected with the seasons.

From this brief review it will be seen that the question, of whether earthquakes are at all affected by extra-terrestrial influences, is at present an open one, and for this reason I made every effort, after the great earthquake of 1897, to obtain the fullest possible record of the extremely numerous after-shocks, thinking that if there was any external cause at work it should be especially easy to trace at a time when, and in a region where, the earth's crust was evidently in an extremely unstable condition. The discussion of these records is not complete but in the case of one of them it has been completed, so far as one particular phase of the frequency is concerned, and the results obtained appear to be of sufficient interest to justify some notice of them.

In July of 1897, Mr. T. D. LaTouche, who was then in Shillong reporting on the results of the earthquake, constructed a seismograph on the duplex pendulum system, which was set up by the Executive Engineer, and from which continuous records have been taken ever since. The instrument, like all seismographs, is far from a perfect one, it does not record many shocks which can be distinctly felt, and it does not record the time, yet the records are of great value. In the first place we know that every shock recorded attained a certain standard of range of motion of the wave particle and of violence, if such a word may be applied to what in many cases are merely slight shocks, and that all the shocks exceeding this standard are recorded. The absence of automatic time record is more serious, but as the time of the shock was, in every case, recorded by the observer we may take it that there is no very serious error or omission in this respect. Every shock recorded represents one at approximately the time given, and the only cause likely to affect the periodicity is a possible error in the case of the night shocks: it is possible that the instrument may at times have registered a shock while the observer was asleep, and the record afterwards referred to one, felt when he was awake, which did not affect the instrument. The uncertainty due to this cause is, however, slight, as the gentlest shock registered by the instrument is sufficiently strong to usually awake a sleeper.

From this instrument we have received records from August 1897, but those discussed as yet only extend to the end of 1901; so far they have only been examined with a view to the hourly variation in

<sup>&</sup>lt;sup>1</sup> Phil. Trans. clxxxiv, A, 1107 (1893).

frequency, and instead of contenting myself with a mere record of the relative frequency of the earthquakes, as has usually been done in the past, I have made an attempt to see whether there is any trace of extraterrestrial influence in this frequency.

As pointed out by me in a short note published in 1901<sup>1</sup> any effect which the attraction of the sun and the moon may have, will be most effectively, if not solely, exerted by the Tide-producing forces they set up, and that, to trace the effect of these, it is not sufficient to merely tabulate earthquakes by the hours in which they occur. The time at which the tide-producing forces reach their maximum depends on the declination of the sun and the moon, that is to say it is subject to seasonal variations, and to determine whether these forces have any influence it is necessary to classify the records, according to the position of the sun or moon with reference to the equator, and then examine the frequency to see whether there is any variation which can be correlated with the tidal forces.

# II.-STATEMENT OF THE PROBLEM.

There is neither space nor occasion to recapitulate what is known of the theory of the tides, but a brief account of the form of the tideproducing influence of the attraction of the sun and the moon is desirable, that the nature of the effect to be looked for may be clearly understood, and the review will be simplified by the fact that we need not consider the theory of the tides themselves, but merely of the stresses to which they owe their origin. Omitting all reference to the why, it will be sufficient to point out that the effect of the attraction of a satellite-and in this connection the sun is regarded as a satellite equally with the moon-is to produce a stress equivalent to an upward force at the spot which is at any moment directly under the satellite, and at the antipodes of that spot. Along the great circle half way between these two spots, separated from each by 90° of arc, there is a force acting downwards towards the centre of the earth, and equal in amount to one half of the upward force. At spots between these two points and the great circle just referred to, the stresses produced are equivalent to forces acting in directions away from the vertical, and along a circle which is distant about 54° 44' 14" from the spots where the satellite is in the zenith or nadir the force acts horizontally.

Now if we suppose the force exerted at any point to be resolved into two separate forces, one acting vertically and the other horizontally, then the vertical force attains its upward maximum where the satellite is in the zenith or nadir, and its downward maximum along the great circle intersecting the line joining these two points and lying at right

<sup>1</sup> Geol. Mag. 4. Decade, viii, 449, (1901).

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angles to it. The horizontal force attains its maximum along two circles distant about 54° 44' from the zenith and nadir respectively, the direction being towards the satellite in the former case and away from it in the latter. If then the tidal stresses have any influence in determining the time of origin of earthquakes we should look for the effect in connection with these circles.

Both sun and moon, as is well known, vary their position in the heavens, travelling alternately north and south of the equator, the sun moving to about 23°, and the moon to about 26°, from it. From this it follows that neither can ever be in the zenith of any spot distant more than 26° from the earth's equator, that is in more than 26° of latitude either north or south, and no spot situated outside those limits can ever experience the maximum upward force. Within those limits, at either one or two periods in each year, when the declination of the sun and the latitude of any given place are the same in amount and sign, the maximum upward force, due to the sun, will be experienced at midday and midnight; and similarly in each lunar month there will be either one or two periods at which the maximum upward force will be experienced, when the moon is either overhead, mid-moon-day, or underfoot, mid-moon-night. Outside the limits of the two 26° parallels, and within them at all times when the declination of the sun or moon is different in amount or sign from the latitude, the maximum upward force will not be experienced, but, as the earth revolves on its axis, the circles of maximum horizontal and downward force sweep over its surface, and pass any given place at an interval, before and after the meridian passage of the satellite, which depends on the declination of the satellite at the time and the latitude of the place.

From these considerations it will be seen that, before discussing the frequency of earthquakes with reference to the tidal stresses, it is necessary to group them according to their place of origin, and then see whether, for any one district, there is a connection between the relative frequency of earthquakes and the times of passage, over the epicentre, of the circles of maximum tidal force.

One method of discovering whether there is any such connection would be to calculate for each, earthquake the exact time which separated the time of its origin from that of the passage of each of the circles of maximum tidal force, and then to classify the records according to these intervals, and see whether there was any preponderance of earthquakes at or about these times. The process would be a laborious one, and, in view of the want of exact accuracy in the times, did not seem worth going through, as a result within the limits of accuracy of the records can be obtained in a simpler manner.

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We may assume that the epicentres of the earthquakes now under consideration all lie in 26° N. Lat., without introducing any material error, and, calculating for that latitude the time intervals, which elapse between the meridian passage of the satellite and the passage of the tidal circles, we obtain, for extreme and mean values of declination the intervals given in the tabular statement below, <sup>1</sup> where 0 h represents the lower, and 12 h. the upper, meridian passage, or midnight and midday in the case of the sun.

| Decl.  | Hor. force,<br>Direct. | Vert. force,<br>Downward. | Hor. force,<br>Indirect. |
|--------|------------------------|---------------------------|--------------------------|
|        | 12 h. ±                | 0 h. ±                    | 0 h. ±                   |
|        | h. m.                  | h. m.                     | h. m.                    |
| 26° N. | 4-15                   | 4-38                      |                          |
| 9° N.  | 8-81                   | 5-34                      | 2-14                     |
| 0°     | 2-59                   | 6-0                       | 2-59                     |
| 9° S.  | 2-14                   | 6-26                      | 3-81                     |
| 26° S. |                        | 7-22                      | 4-15                     |

I.—Table showing the times of passage of circles of maximum horizontal and vertical Tide-producing force; calculated for Lat. 26° N.

From this table it is obvious that, if the total number of shocks is divided into three groups, according to the position of the sun, the first comprising those which occurred when the sun was more than 9° N. the second when its declination did not exceed 9° N. or S. and the third when the declination was more than 9° S., then in the first group the effect of the horizontal force must be looked for between 31 and 4 hours before and after midday, and within two hours on each side of midnight; in the second group the effect is to be looked for between 3 and 3<sup>1</sup>/<sub>4</sub> hours on either side of midnight and midday; while in the third the condition will be the same as in the first, with the substitution of midnight and midday. Moreover, as the effect may be due rather to the rapidity of changes in the amount, than to the actual amount, of the force exerted, the horizontal force may have but small influence when the passage of the circles takes place at less than two hours on either side of the meridian passage, that is to say, when the intersection of the circles is oblique, and the rate and range of change in the amount of force is less than when the passage takes place at a greater time-interval than 2 hours from the meridian passage. This, combined with the much greater length of time during

L The intervals are not exactly the same on either side of the meridian passage on account of the motion of the sun and moon in the heavens, but the inequality is not sufficient to be of importance in this connection.

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which the interval exceeds three hours, shows that in a general list of all the shocks the effect must be looked for between 3 and 4 hours on either side of midday and midnight. Further, as it is a common phenomenon in nature that the maximum of effect lags behind the maximum of cause, it may be that the effect will not be found between 3 and 4 hours on either side of the meridian passages, but at some time after that epoch. Another effect which may be looked for, which follows from the consideration of the greater efficiency of the force when its rate of variation is greater, is that we may expect the number of shocks recorded during the day to be proportionately greater when the sun is more than 9° N., that is during the summer, and the night shocks to be proportionately more numerous during the winter, when the sun is more than 9° South of the equator.

There is another supposition which must also be tested, that the effect, if any, of the tidal forces is not to be looked for in connection with the times when they attain their maximum, but with the times at which the rate of change, of amount and direction of the forces, is at its maximum. For any particular place the rate of change always reaches its maximum at 3 hours before and after the meridian passage, but along a great circle, passing through the place of observation and the place where the satellite is in the zenith, the maximum rate of change is at  $45^{\circ}$  from the latter, and it will be useful to see what is the time interval for different declinations at which a circle  $45^{\circ}$  distant from this spot passes the place of observation. The result is given in the following table.

| Decl.                                | Direct.                                                                                                       | Indirect.                                      |
|--------------------------------------|---------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| 26°N.<br>9°N.<br>0°<br>9°S.<br>26°S. | $ \begin{array}{c}     12h \pm \\     h. m. \\     3-22 \\     2-56 \\     2-33 \\     1-56 \\  \end{array} $ | 0 h ±<br>h. m.<br>1-56<br>2-33<br>2-56<br>3-22 |

II.—Times of passage of circles of maximum rate of change of the Tideproducing forces calculated for Lat. 26° N.

It must be distinctly understood that the times given in this table are not those at which the rate of change is actually greatest, but those at which the rate is greatest, as measured along a different circle to the east and west one, along which the place of observation travels. In the solitary case where this place and the satellite are both on the equator the two agree, and in no other; but the table is useful, for the closer the

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value in the table approximates to 3 hours the greater is that rate of change, and the closer it lies to 0 h. or 12 h. the less is the rate of variation of the tide-producing forces.

The passage of the circles of maximum vertical force is not subject to the same changes as that of the other circles, and never varies more than 1 h. 22 m. from six o'clock; the effect of this force must therefore be looked for about that time in the morning and evening or somewhat later.

Finally, it is necessary to notice one objection, which might be raised to the preceding passages, that the effect is not necessarily to be looked for at any fixed time before or after the meridian passage of the satellite, but that, for each place, there will be something equivalent to what is known as the "establishment" of a port in the case of marine tides. The objection, however, is not valid, for in this case we have not to do with free travelling waves, like that of the tides, which take a greater or less time to travel from the place where they originate to the place where they are felt, but with the direct effect of the stresses which produce the waves. These depend solely on the latitude of the place and the declination of the satellite, and for them there is nothing in any way analagous to the "establishment" to be considered.

# III. DISCUSSION OF THE DATA.

After this preliminary exposition of what is to be looked for, we may pass on to a consideration of the results obtained. In the record discussed there are contained 1274 distinct shocks, and, on counting these, it was found that, in each hour of the twenty-four, the number of shocks recorded was as given in the tabular statement No. III, where all shocks recorded from 0 h. to 0 h. 59 m. are placed under 0, those between 1 h. and 1 h. 59 m. under 1 and so on.

The most casual inspection of this table shows that the shocks are not at all uniformly distributed during the twenty-four hours, and that there is a great preponderance during the hours preceding midnight, with a lesser increase towards 6 A.M. It may also be noted that the night shocks seem more numerous when the sun is more that 9° S and the day shocks when it is more than 9° N, but no proper comparison is possible on account of the difference in the total number of shocks in each line. For comparison they must be brought all to the same ratio, and this may be done, either by calculating the percentage of the total number of shocks recorded in each hour, or more simply by dividing each figure by the mean value for the line; this gives a result showing the proportion of the number of shocks recorded in each hour to the average number for one hour. In this way we get the result shown in the next tabular statement.

J. п. 19

|                               | .      |        |      | ·                   | ·       | • .                                     | -            |       | Hou           | riy        | listr                             | ibutic          | 111Hourly distribution of Shocks. | 84                | ocke.            |          |                           | •          | •           |           |               |       |                         | . ]      |             |
|-------------------------------|--------|--------|------|---------------------|---------|-----------------------------------------|--------------|-------|---------------|------------|-----------------------------------|-----------------|-----------------------------------|-------------------|------------------|----------|---------------------------|------------|-------------|-----------|---------------|-------|-------------------------|----------|-------------|
| Houre<br>Sun's<br>Declination | •      |        |      | 63                  | <br>®   | 4 · · · · · · · · · · · · · · · · · · · |              | 6 7   | 00            | <b>0</b> . | 10                                | 11              | 18                                | 18                | : <b>:</b>       | ; 29     | 19                        | 11         | 138         | 18        | <u>କ</u> ୍ଷ - | 21    | 5                       | ្ត្      | Torat.      |
| N°9<                          | =      | 15     | 16   | 8 13                | 13      | 24                                      | 54           |       | 69<br>00      | 22 1       | 12 2                              | 22              | 31                                | 16                | 13 22            |          | 12 27                     | 7 16       | 14          | 11        | 7 21          | 1 .30 | 8                       | 8        | <b>1</b> 86 |
|                               | ×0<br> | 00<br> | 14   | 4 14                | 58      | 3 14                                    | 18           |       | 16            | -1<br>-6   | 15 1                              | 18              | 14 II                             |                   | 18               | 81<br>05 | 22 22                     | 11         | 2           | 13        | - 19-         | 11    | 7 21                    | 19       | 368         |
| `<br>8,6<                     | -11    | 51     | 8    | <b>6</b> 87         | 53      | 8                                       | 8            |       | 16 1          | 1 07       | 15                                |                 | 10                                | 16 1              | 12 17            |          | 18 22                     | 19         | শ্ব         | 8         | 8             | 5     | 4                       | 19       | <b>188</b>  |
| Тоты                          | 83     | 2      | . 69 | 9 65                | 81      | 50                                      | <u>ę</u> .   |       | <b>8</b><br>4 | 4          | 4                                 | <b>64</b><br>70 | 54 48                             | 1                 | 43 48            |          | 47 71                     | 48         | 3           | 3         | 8             | 12    | 8                       | 83.      | 1274        |
|                               |        |        |      |                     |         | <u>-</u> .ν]                            | -Pro         | porti | onat          | e dis      | IV.—Proportionate distribution of | tion            | of S                              | llock             | Shocks by hours. | hour     |                           |            |             |           |               |       |                         |          | -           |
| Hours<br>Sun's<br>Deelination | ļ,     | 0      |      |                     |         | 4                                       |              |       |               |            | <b>6</b>                          |                 | 1 13                              | 18                | 14               | 15       | 16                        | 17         | <b>91</b> · | 18        | 8             | 31    |                         | 89<br>N  | • •         |
| <br>Nge <                     | .61    |        |      | 88.                 | <u></u> | -11                                     | 1.82 1.33    |       | •44 1.21      |            | -66 1·21 1·16                     | 1.1             |                                   | 5 <b>2</b> -  88- | 12.1 22.         |          | •66 1.49                  | - 6<br>- 6 | 11. 8       | - 63<br>- |               | 6 1.6 | 1.16 1.65 1.54 1.10     | 1.10     |             |
| ze <b>0-N<sub>6</sub>G</b>    |        |        |      | - <b>94</b> -9      | 94 1.74 | •                                       | 1.07<br>1.50 | _     |               | -60 1-01   | 78· 10                            |                 |                                   | 74 1-21           |                  | 1:4      | -60 1:47 1:47<br>-66 1:10 |            | 18. 4       | -8-       |               | 1.1   | 1-87 1-14 1-41 1-27     |          |             |
|                               |        |        |      | 01-1 05-1 95-1 00-1 |         |                                         | <u>-  </u>   |       |               |            |                                   |                 | <u> </u>                          |                   | 8                |          | 01.1                      |            | ž           | <u> </u>  | 2             |       |                         | <b>Å</b> |             |
| All@books                     | 99     |        |      | ·80 1·09 1·02 1·19  | 5       | -1 6                                    | 1.07 1.80    |       | 11. 11-       |            | 80<br>90                          | -88 1.03        | 8.                                | -9                | 88.              | <u>.</u> | . 93 1.35                 | 8          | 8           |           | <u>.</u>      | 41.8  | ·94 1·14 1·32 1·67 11·1 | <u> </u> |             |
|                               |        |        |      |                     |         |                                         |              |       |               |            |                                   |                 |                                   |                   |                  |          |                           |            |             |           |               |       |                         |          |             |

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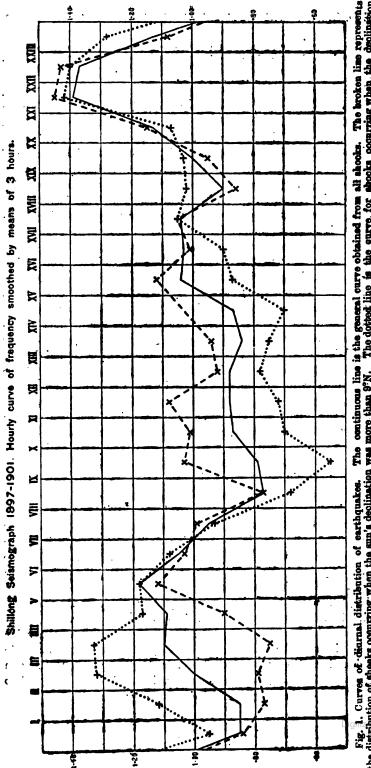


Fig. J. Curros of diarnal distribution of earthquakes. The continuous line is the general curve obtained from all shocks. The broken line represents the distribution of sheeks cocurring when the sun's declination was more than 9°N. The dothed line is the curve for shocks occurring when the declination as more than 9°S. <u>.</u>.. . • : ب

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Here we again see that the day shocks are proportionately more numerous when the sun has declination of more than 9°N. than when the sun is more than 9°S. of the equator, and that in the latter case the night shocks are proportionately more numerous than in the former. It is also evident, from the irregularity of distribution from hour to hour, that the number of shocks is not enough to give a near approach to the true curve, when plotted directly, and a process of smoothing has to be adopted. This has been done by adding together the number of shocks recorded during each group of three successive hours and, by regarding them as grouped round the centre of the middle hour, obtaining a fresh series of hourly means, from which a great deal of the irregularity of the curve has disappeared. The result is represented graphically in Fig. 1, so far as the shocks which occurred when the sun was more than 9° north and south of the equator respectively.

From this curve it will be seen that as regards the shocks occurring about two hours before midnight there is little difference, but that for the rest of the twenty-four hours the curve for south declination is steadily above that for north declination throughout the twelve hours of the night, and below it for the day. Moreover there is a distinct maximum in the earthquakes recorded round three hours after and two hours before midnight, while the earthquakes recorded near midnight are much more frequent than when the sun was more than 9° north of the equator. Turning to the shocks recorded when the sun was north of the equator, not only are they proportionately more numerous, than when it was south but there is again a distinct pair of maxima, shortly before and three hours after midday. Among the shocks recorded when the sun was within 9° of the equator we have maxima distinctly marked at about 5 hours after midnight and midday, another at about 2 hours before midnight and a less marked one at about 2 hours before midday.

There is consequently an approach to what might be expected if the tide-producing forces caused by the attraction of the sun had their effect in determining the time of origin of earthquakes, but it is also evident that, if these forces have any effect, it is so small and so complicated by other causes, giving rise to a greater variation in frequency than they do, that it is necessary to adopt some method of discussion, which will more or less completely eliminate the effects of variation, other than those due to the tide-producing forces.

The most obvious of these would be the conversion of the solar into lunar times. The moon moves through the heavens at a rate which brings it on the average about 50 minutes in advance of the sun for each day. If, then, we consider the interval between the two

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successive similar meridian passages of the moon as representing 24 lunar hours, and convert the recorded times into lunar times, it is obvious that, in a long series of observations, any irregularity of frequency, at any particular hour of solar time, will get spread over the whole of the lunar day, and in its place will be introduced any fresh irregularity due to the position of the moon. Now as the moon has twice the efficiency of the sun, as a tide producer, any irregularities due to the tide producing forces should be double as great as in the case of the sun.

Unfortunately the test cannot be applied in this case as, on trial, it was found that the series of observations was not sufficiently long to eliminate the effect of the diurnal irregularities.

This method of elimination failing, we must fall back on the recorded times, to see whether there is no other method of eliminating the non-tidal diurnal variation, and a method appears which depends on the fact that, taking the year as a whole, the tidal effect is on the average the same all through, since the times of passage of the tidal circles during the six hours on either side of midnight are the same for a south declination as the times on either side of midday in the case of the same amount of north declination.

If, then, we take the recorded frequency of shocks for each hour, write them down in two lines, placing those for the hour after midday under those for the hour after midnight and so ou, and then add the two lines, we obtain a series of numbers representing the semi-diurnal curve of frequency. In this curve any diurnal periodicity, which is of a harmonic nature, is completely eliminated, and any non-harmonic periodicity largely reduced in amount. On the other hand any semidiurnal periodicity which is harmonic in character, or which, if not harmonic, has its irregularities similarly distributed with regard to midnight and midday, will be exaggerated; that is to say the effect we are looking for will be increased, while that which we wish to eliminate will be reduced, in amount.

In the next tabular statement the process is illustrated as regards the total number of shocks, and four more lines given, showing the results obtained in the case of certain combinations of shocks, which will be referred to further on.

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| Hours.                                                           | 0<br>12        | 1<br>18        | 2<br>14 | <b>8</b><br>15 | 4<br>16 | 5<br>17 | 6<br>18 | 7<br>19        | 8<br>20 | 9<br>21 | 10<br>22 | 11<br>· 23 |
|------------------------------------------------------------------|----------------|----------------|---------|----------------|---------|---------|---------|----------------|---------|---------|----------|------------|
| All shocks 0 h. to 11 h.<br>Do. 12 h. to 23 h.<br>Suma           | 83<br>43<br>76 | 44<br>43<br>87 |         | 47             | 71      | 46      | 48      | 40<br>50<br>90 | 60      | 71      | 90       | 58         |
| Sum + Mean                                                       | •72            | ·81            | 1.01    | ·96            | 1.26    | 97      | 1.11    | •85            | •95     | 1.06    | 1.25     | 1.05       |
| Day shocks>9° N. }<br>Night shocks>9° S. }                       | - 80           | ·82            | 1.53    | -199           | 1.18    | ·84     | 1-11    | •67            | 1.01    | •87     | 1.52     | 96-        |
| All shocks 9° N. to 9° S.                                        | ·53            | •87            | •77     | <b>1·2</b> 0   | 1.61    | •84     | •94     | •97            | -94     | 1.08    | 1.14     | 1-11       |
| Day shocks>9° N.<br>All shocks 9° N. 9° S.<br>Night shocks>9° S. | •69            | •84            | 1.04    | 1.08           | 1.86    | -84     | 1.04    | -80            | ·96     | •95     | 1.36     | 1.02       |
| Night shocks>9° N.<br>Day shocks>9° S.                           | •77            | •77            | -94     | •71            | 1.00    | 1.23    | 1.26    | ·94            | •94     | 1•29    | 1.08     | 1.13       |

V.-Semidiurnal distribution of Shocks.

Here we see two very marked maxima, in the distribution of the shocks, one during the fifth hour after, the other during the second hour before, the meridian passage, and these maxima may be taken as grouped around  $4\frac{1}{3}$  hours and  $10\frac{1}{3}$  hours of the morning and afternoon. That is to say they both follow by  $1\frac{1}{3}$  hours the epoch corresponding to three hours before and after the meridian passage, a time which corresponds more closely to the passage of the maximum rate of change of tidal force, than to that of the circle of maximum horizontal stress.

If we turn to the next line in the table, representing the distribution when the tide producing forces may be expected to be most effective, we find the same features, except that the maximum following the meridian passage is less marked than that which precedes it, and that though the latter is proportionately greater than in the case of the whole number of shocks the former is less.

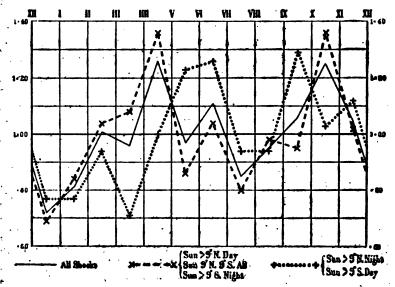
The next line shows the distribution when the sun is within 9° of the Equator, when on the average the conditions—so far as the tide generating forces are concerned—are the same during the day as the night. Here we find the two maxima again, but it is that following the meridian passage which is most conspicuous, the other being small and ill defined.

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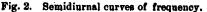
The fact is that in both these cases the total number of shocks considered is too small to get an approach to a true average, and, in this small number of shocks, accidental variations of distribution may produce an irregularity of the curve which exceeds its normal variation.

To some extent this difficulty may be overcome. If we refer to the tables I and II, we will see that when the sun is within 9° of the equator, there is not a very great variation in the times of passage of the tidal circles as compared with the times of passage during the day when the sun is north, and during the night when it is south, of the equator. On the other hand the night when the sun is north, and the day when the sun is south, of the equator, show a much greater range of time in the passage of the circles and not only is the rauge of time greater and the effect consequently less conspicuous, but during part of the time the maximum of horizontal force is not felt at all, and during the rest of the time the passage is so oblique that the rate of change is slow and the tidal forces probably less effective.

Excluding these shocks we may add together the two groups of shocks already considered and so obtain a larger one, in which the tidal effect is tolerably uniform. The result is given in the table, and shown graphically in Fig. 2. Here it will be seen that the two maxima preceding and following the meridian passage are both distinct, and exceed those obtained from the total number of shocks.



Shillong Seismograph 1897-1901. Semidiurnal curve of frequency,



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We have consequently the effect which was to be looked for if the frequency of earthquakes is influenced, either by the amount of the horizontal tide generating force, or by the rate of change of the tide generating forces, and the fact that this effect becomes more marked the larger the number of shocks—suitably distributed as regards time of occurrence—which are taken into consideration, lends support to the supposition that the apparent relation between cause and effect is a real one.

Passing on to the last line, representing the night shocks when the declination is north and the day shocks when it is south, that is to say a time when the rate of variation of the tidal stresses is at its lowest and less effect to be looked for, we find that the marked maxima have disappeared, and that there is an almost equally distinct increase in frequency about six o'clock, that is at a time corresponding to the passage of the circles of maximum vertical force. This has the appearance of indicating that the purely vertical stresses have less influence than those which have a large element of horizontal stress, and that the effect of the former only becomes apparent when that of the latter becomes small. Too much stress must not, however, be attached to this conjecture, as the number of shocks dealt with is smaller than in any of the other combinations, and the possibility of fortuitous irregularities in the curve more probable in a corresponding degree, and besides this the effect here only lags half an hour behind the presumed cause, while in the case of the  $4\frac{1}{2}$  and  $10\frac{1}{2}$  hour maxima it lags  $1\frac{1}{3}$  hours behind the presumed cause.

It appears then that the tidal stresses have a distinct effect in determining the time of origin of earthquakes, though their influence is small in proportion to other causes, but at the same time it is necessary to enter a caution that, though the facts in this case seem to support the conclusion, they are far from proving it. For proof a more extended series of observations are required, not only from Assam, but from other stations also, and even in the record discussed in this paper there is reason to doubt the correctness of the conclusion, inasmuch as the effect found appears to be out of proportion to the cause invoked.

When we consider that the maximum upward tidal force exerted by the moon is only 1/8, 450,000 of gravity, that this corresponds very closely to the difference in downward strain which would be produced by the removal or replacement of half a grain on a one-ton weight, that the maximum horizontal tide generating force is only three quarters of this, and finally that the tide generating forces set up by the sun are a little less than half of those set up by the moon, it is surprising that they should have any effect at all. On the other hand when we consider that these forces are sufficient to give rise to the tides, and that the difference between the spring tides and the neaps is due to the forces whose effect has been searched for in this paper, it is quite conceivable that they should not be without effect in determining the moment at which a gradually increasing strain becomes too great for the resistance, and the fracture is produced which gives rise to an earthquake.

IV.-CONCLUSIONS.

From what has gone before we may draw the following conclusions.

1. That there was a very large variation in the diurnal distribution of earthquakes in Assam during the years 1897-1901, shocks being most frequent between 10 and 11 P.M., and again between 6 and 7 A.M. This greater frequency is a real one and not merely due to a larger number of shocks happening to be recorded at those times.

No satisfactory cause can be assigned for this irregularity of distribution, which must for the present be accepted as a fact true for a limited period and area.

2. Superimposed on this large and unexplained variation in frequency, there is a smaller variation which has the appearance of being due to the tidal stresses set up by the attraction of the sun.

3. If this smaller variation is really due to tidal stress, then the horizontal stress is much more efficient than the vertical stress, and the effect is less due to the amount of the stress than to the rate and range of its variation.

4. That these conclusions must be taken as purely provisional and require verification from a more extended series of observations. For their verification we require an instrumental record from some station within or near the tropics, where earthquakes are fairly frequent, and extending over 19 or 20 years.

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# XVI.—General Notes on Variation in Birds.—By F. FINN, B.A., F.Z.S., Deputy Superintendent of the Indian Museum.

### A. SOME STRIKING CASES OF VARIATION IN STRUCTURAL CHARACTERS.

I have occasionally been able to note marked deviations instructure, which might conceivably have been useful in some cases.

Thus I saw at a Pigeon show in Oxford, on October 23rd, 1891, a white Fantail Pigeon with the two inner front toes on each foot webbed. The abnormality is not common, but has been recorded by Darwin. (Animals and Plants under Domestication, Vol. I. p., 160).

I obtained in Port Said in 1894 the feet of a common fowl with a long hallux like a Curassow's but not apparently capable of flexion at the terminal joint, being more like the supernumerary hallux so often present in these birds—especially in Port Said specimens, where every gradation between this and the normal hallux may be seen.

In Zanzibar, where the fowls are usually of the long-legged Malay type, I occasionally saw a very short-legged specimen with the usual long neck. As there are some breeds of fowls, *e.g.*, the Japanese Bantam, wherein the legs are always very short, this is probably an easily perpetuated and abrupt variation.

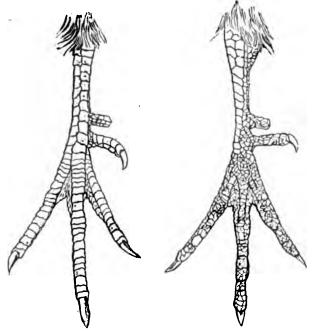
At a meeting of the British Ornithologists' Club last year, Mr. W. B. Tegetmeier showed the head of a wild Rook (*Corvus frugilegus*) with a remarkably elongated beak approaching in form that of a Chough.

The Chough itself (*Graculus graculus*) in confinement is liable to an elongation of the bill which is often very regular, and makes the beak resemble that of an Ibis. This might well occur in the wild state—as overgrowth of the upper chap is known to do in some birds—and be of service. The subjacent tissues may also penetrate the overgrowth of horn, for Mr. Rutledge found on attempting to cut back the overgrown bills of some Choughs that this could not be done, as blood was drawn in cutting off the first half inch.

Recently I procured in the Calcutta Bazaar a common Quail (Coturnix communis), possessing on each foot five toes like a Dorking fowl. In each case, as so often happens in five-toed fowls, the true hallux was higher up the shank than usual. The upper supernumerary hallux was quite distinct, but shorter than the normal one, whereas in five-toed fowls it is usually longer. One only of these extra toes had a claw, but as it was loose on the other, and ultimately came off, it had

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evidently become accidentally detached from one toe. An enlarged drawing of these feet is given below.



FIVE-TOED FEET OF COMMON QUAIL.

As five-toed birds do not occur as natural species, this instance may seem off the point, but it has its interest from the point of view of Analogous Variation.

In the London Zoological Garden last year there was a male Curassow with the yellow nasal knob on the bill double, the extra part being somewhat out of line with the normal lump, and extending behind it.

B. SOME COLOUR-VARIATIONS IN WILD BIRDS.

The Garganey or Blue-winged Teal (Querquedula circia) is very liable to produce a pallid variation, in which the usual brown markings are reproduced in a pale dun shade. These pale forms vary in pallor, but do not grade into the normal type. Males and females are about equally affected. The irides of such birds are normal, but their bills and feet are flesh-coloured instead of slaty. A white Garganey I once saw as a skin seemed, however to have had dark bill and feet. Mr. E. C. S. Baker records (J.B.N.H.S., Vol. XII., p. 446), a Garganey with orange

feet, with, I presume (as he says nothing to the contrary) normal plumage. After examining hundreds of both this species and the Common Teal (*Nettium crecca*), I have never seen any variation in the latter.

Snipe (Gallinago cælestis and G. stenura) frequently present pallid forms, which, as in the Garganey, vary inter se but do not grade into the type. I was fortunate last winter in procuring, in addition to a pallid specimen of the Fantailed species, a Pintail Snipe, which was a pied bird of remarkable aspect. The general plumage was normal, but the darkstreaked buff plumage of the fore-neck and breast was interrupted by a longitudinal white patch, and there was a great deal of white in both wings. The right wing had the first three primaries white, together with nearly all the wing-coverts of the outer part of the wing, forming a conspicuous patch. On the left wing all the primaries were white, and a still greater extent of the wing-coverts. The irides, bill and feet were, normal, except that the toes were fleshy orange instead of olivegreen like the shanks. (Ind. Mus. Reg. 24155,  $\mathcal{S}$ .)

I have thought it worthwhile to have this specimen figured (Plate VIII, fig. A), together with two pallid specimens of this species (G. stenura) (Plate VIII, figs. B, C) of different shades.

Pallid forms of the Indian House-Crow (*Corvus splendens*) are not rare; one of a pale fawn, with the face and wings darker, lived 15 years in the Calcutta Zoological Garden; this had fleshy white bill and feet. Some rather similar specimens in the Indian Museum have, however, evidently had dark bills and feet. The white specimens we have have had fleshy white bills and feet, and this has been the case with all the white Jackdaws (*Corvus monedula*) I have seen in England; about half-a-dozen in all. (I believe, however, these white Jackdaws are a domesticated race).

I have thrice in seven years secured pallid varieties of the Rain-Quail (*Coturnix coromandelica*), once only of the common Quail (*C. communis*), though this is more abundant in the Calcutta Market. These birds have always been hens. I have now got another hen Rain-Quail with all the primaries and their coverts, with the two outer feathers of bastard-wing, pure white in the left wing; on the right side, all the primaries but the fourth, ninth and tenth, with the distal primary coverts, were white, but bastard-wing normal. The centre of the throat and a patch on the fore-neck, were also white. (Reg. No. 24229). The irides, bill, and feet were normal.

Grey or slate-coloured varieties are not common, but I have seen two such in the Jackdaw (*Corvus monedula*), one in the King-crow or Black Drongo (*Dicrurus ater*) and one in the Bengal Bulbul (*Molpastes* bengalensis). In the last-named bird the red under-tail-coverts persisted.

Recently Mr. Rutledge obtained a pale ash-coloured House-crow (*Corrus* splendens), a young bird, with dark-lead-coloured bill and feet, and wings and tail faintly barred with darker grey than the ground-colour.

White varieties are so well known as to need little comment; they are seldom pink-eyed like albino mammals. Red often persists in such; I have seen an albino red-whiskered Bulbul (Otocompsa emeria) retaining the red "whiskers" and under-tail-coverts, and an albino Goldfinch (Carduelis carduelis) retaining the red face and yellow wing-bars.

In India I have seen two pale varieties of the crimson-breasted Barbet or Coppersmith (Xantholæma hæmatocephala), one in the Indian Museum, and one now alive at the Alipore Zoological Garden. In the former (Reg. No. B5031) the plumage is yellowish white except the primary-coverts and several quills from the sixth onwards, which are normal. The stiff glossy frontal feathers and breast patch are pale yellow instead of scarlet. The beak is yellowish white in the skin. In the latter, captured adult, the red of forehead, breast, and feet persists. The bill is flesh-coloured instead of black. The plumage is pale yellow, irregularly marked with green. It has not changed in moulting.

The common Ring-Parroquet (*Palæornis torquatus*) frequently produces a yellow variety, in which the red bill in both sexes and red collar of the male persists. I have also seen, besides numerous green birds splashed with yellow, a bird of an even intermediate tint between yellow and green. Specimens shaded with green on a yellow ground are not uncommon. Mr. W. Rutledge knows of a case where two normally coloured wild birds constantly produced a yellow brood.

The large Ring-Parroquet and its races (*Palseornis nepalensis*, §c.), is very rarely lutinistic; we have, however, in the Indian Museum a green-tinted lutino of the large-billed Andaman race still showing the red wing-patch. (Reg. No. 22071).

The Rose-headed Parroquet (P. cyanocephala) is not infrequently yellow, when the head is pink (as in specimen 23981, Ind. Mus. Reg.).

In the Indian Museum there is a specimen of the Blue-crowned Hanging Parroquet (*Loriculus galgulus*) with primaries nearly all yellow and many other yellow feathers. The bill is black as in the normal birds, but the blue patch on the head is replaced by a faint red one. (Reg. No. B. 342).

I once, in England, saw a wild Song-Thrush (*Tardus musicus*) with the tip of the tail regularly white; but it had an abnormal-looking patch of white on one wing also.

The Calcutta Zoological Garden once possessed a Coucal or Crow-Pheasant (Centropus sinensis) with bill and feet normally black, normal

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red irides and chestnut wings, and all the rest of the plumage white, where it should have been black. In the Museum is a pale dun bird of this species with pale chestnut wings, and the two central tail feathers decidedly fibrous and loose in texture. (Reg. No. B. 7220 procured in Purneah 1871). Mr. Rutledge recently had a dun-coloured male Koël (*Eudynamis honorata*) with fleshy-white bill and feet, but normal oyes. Its plumage faded before moulting, to cream-colour, like a dun pigeon's, the new feathers being strikingly darker.

C. REVERSION TO NORMAL COLOUR IN ABNORMAL VARIETIES.

A much-prized albino or lutino specimen, taken in that condition, often disappoints its owner by moulting out into the normal colour. Mr. W. Rutledge tells me that this is always liable to happen unless the individual has pink eyes or an abnormally white bill or feet. I have seen entire or partial resumption of the normal colour in two House-Mynahs (Acridotheres tristis), and a Babbler (Orateropus canorus) in his possession. (See paper on Variation above quoted, J.A.S.B. 1902, also Bateson, Materials for the Study of Variation, p. 43, foot note 2).

Pallid specimens are also liable to revert in this way. A male cream-coloured sparrow I recently obtained put out new feathers of a nearly normal colour, and I have seen a skin of the House-Mynah in the same condition. The grey Bengal Bulbul above alluded to, however, has never reverted; its bill and feet are normally black, as were those of the two grey Jackdaws mentioned with it.

The same phenomenon has occurred in the case of melanism. A Bullfinch (*Pyrrhula pyrrhula*) found as a black nestling in an otherwise normal brood, attained on moulting ordinary female plumage (Howard Saunders, *Manual of British Birds*, p. 188, ed. 1889).

It seems to me that such facts as these furnish a simple explanation of the case of those Herons which are white only in youth.

VABIATIONS IN RELATION OF IMMATURE TO ADULT PLUMAGE.

Darwin gives several cases of this on Blyth's authority, and I can add a few myself.

The skin of a young Crow-Pheasant (Contropus sinensis) in the Indian Museum (Reg. No. 11265 from Bhowra) already shows in per-

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fection the rich blue-black body and chestnut wings of the adult, instead of the usual barred plumage of immaturity. Birds resembling the adult in everything except in being duller are quite common.

The young of the King-crow (*Dicrurus ater*) and the small Indian Cormorant (*Phalacrocorax javanicus*) are supposed to be mottled with white beneath, but all the nestlings I have seen in Calcutta have been black like adults. Yet the *Dicrurus* does undoubtedly have a whitespotted immature plumage, and some young Cormorants I reared afterwards moulted out mottled below, so that apparently a reversion may take place at the moult.

Similarly, the young Pied Hornbills (*Anthracoceros albirostris*) frequently sold here are always coloured like the adult; but one I knew of moulted out in confinement with white tips and bars to the feathers; a white-barred feathering being given as the young plumage of the closely-allied *A. coronatus* by Parker (Blanford, *F.B.I. Birds*, Vol. III., p. 145).

The young of the common Mynah (Acridotheres tristis), normally resemble the adult except in being duller, but I have seen two with brown heads instead of black; this is much more common in the young of the allied Bank Mynah (A. ginginianus).

The young females of the Golden-backed Woodpecker (*Brachypternus aurantius*), are described as having a black forehead, whereas that of the old bird is spotted with white. Often, however, young hens occur in which the forehead is spotted, sometimes as clearly as an adult's.

#### D. VABIATION IN PREPOTENCY.

The silver-grey gander mentioned in the note on the variations of the Gray Goose was an example of spontaneous prepotency. Such a variation in the wild state might easily have produced the white and partially white males in the sexually dimorphic species of the genus *Chloëphaga*; C. hybrida—the Rock-Goose of Darwin—and C. magellanica, the familiar Magellan Goose of waterfowl fanciers, the Upland Goose of the Origin of Species, and a third species barely distinct specifically from C. magellanica—C. dispar, in which the male is barred beneath like the female.

The species C. rubidiceps, which is extremely like a small female of C. magellanica, may be taken as one in which no variation in the direction of gray-and-white ganders has appeared, or if it did occur, has not been perpetuated by natural or sexual selection.

I have come upon some curious instances of the opposite attribute to prepotency in pigeons. In 1894 I crossed a well-developed and fullyadult Black Fantail Cock with a young and hitherto unmated Homer hen. The Fantail had 33 tail-feathers, the Homer of course only the usual twelve. Yet the pair of mongrel squabs which resulted from their union had only 14 and 15 tail-feathers respectively. I may mention that the Homer hen's subsequent offspring by a cock of her own breed showed no trace of the Fantail; indeed, were telegony better established than it is, so weak a sire could hardly be expected to produce any telegonic phenomena.

A similar case was the failure of the Silver chequer Homer hen, paired to a Blue chequer, to reproduce any offspring of her own colour, either directly or in the second generation, as recorded in *Nature*, June 12th, 1902, p. 157.

# E. PROGRESSIVE VARIATION.

Cases of a variation carrying on the line of development of a species are probably much commoner than is supposed, the attention of naturalists having hitherto been fixed rather on reversionary types than progressive ones. (*Cf.* Bateson; *Materials for the Study of Variation*, p. 307).

Such a case is the tendency to extension of the green ocellated spots in a skin of a male *Polyplectron bicalcaratum* (Malay Peacock-Pheasant) described by me recently from a skin (unfortunately a poor specimen) in the Indian Museum. (Reg. No. 21344). In this the black speckling on the upper back is in groups of spots in certain feathers, richly glossed with green, forming rudimentary ocelli in a non-ocellated region; and the black patches of the outer webs of the lower tail coverts are green-glossed to some extent, thus approaching ocelli in quite another way. (*Nature*, Vol. LXV., p. 367).

Another example is afforded by the Gold-backed Woodpecker (*Brachypternus aurantius*), whose orange-yellow back frequently shows a strong admixture of red, as I have often observed in young birds at all events. (See also Blanford, F.B.I. Birds, Vol. III, p. 50).

The Bronze-Cap Teal (*Eunetta falcata*), which has of late years been invading India in unusual numbers, was so common last winter 1901-1902 in the Bazaar that I secured no less than a dozen specimens, most of them females. Among these I noticed one with a strong green gloss on the head; one with a tail as purely grey as a male's, and one with a tail as distinctly barred as a female Gadwall's, there being thus two cases of progressive as against one of reversionary variation.

The dull male of the Gadwall (*Chaulelasmus streperus*) closely allied to this species, sometimes shows a green gloss on the head (see Hume; *Game-birds of India*, Vol. III, p. 186): I have never seen this myself, but have seen one with a plum-coloured gloss.

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The peculiar Teal of the Andamans (Nettium albigulare) is now frequently white all over the face, whereas in Hume's time it was exceptional for the white eye-ring and white loral patch to join, and nothing is said by Count Salvadori in the British Museum Oatalogue (Vol. XXVII., p. 257) about any extension of the white. The heads of a normal (Reg. No. 18671) and a white-faced (Reg. No. 18671) bird are figured, from a photograph, in Plate IX. The white-faced specimen was one procured as many as twelve years ago, so that the variety existed then; but it is now quite frequent, though not always so white in face as the bird figured; this specimen is a male, as also is the normal bird shown with it.

#### F. VARIATION DIRECTLY INDUCED BY CONFINEMENT.

This is not nearly so common as currently believed among ornithologists, and most of the variations which do occur among birds kept<sup>e</sup>in captivity are well-known and recorded.

In male birds of the Finch family which have a carmine or pink colour in their plumage, this hue is not stable, but usually disappears after the first moult in a cage, as I have often seen.

In the Linnet (*Acanthis cannabina*) the red on head and breast leaves no trace at all; the same is the case with the Eastern race when kept in India (*A. cannabina fringillirostris*).

The Redpoll (A. rufescens) loses the red on the breast and rump entirely; that on the crown changes to greenish-gold.

The Rose-finch (*Carpodacus erythrinus*) changes the general carmine hue of its plumage to dull ochreous yellow.

The Sepoy-finch (*Haematospiza sipahi*) offers a curious case; it is allied to the Rose-finch, but is a brilliant scarlet, not carmine at all; yet a bird which died half through the moult in Calcutta, had changed, where the feathers had come out newly, to bright yellow.

The Bull-finch (*Pyrrhula pyrrhula*) is very liable to become dull in the red colour; and sometimes turns completely black, usually owing to a too free use of hemp-seed. But this may occur without the bird having tasted any, and also in a wild bird (see above p. 158).

Melanism is also common in captive Bulbuls; I have seen it in the Bengal Red-vented species (*Molpastes bengalensis*) the white-cheeked (*Otocompsa leucogenys*) and the white-eared (*Molpustes leucotis*) in which last I have seen it combined with albinism in the same individual.

The Gold-finch (Carduelis carduelis) kept under unfavourable conditions, is liable to have its red face become dull orange.

The Red Cardinal (*Cardinalis cardinalis*) becomes dull red if not kept out of doors in a good light; this has happened in Calcutta.

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The common Troupial (Icterus vulgaris) becomes yellow from amber in confinement if the conditions are unfavourable.

The Pekin Robin (*Liothriz luteus*) is apt to fade as to its orange, yellow, and green tones in confinement; it is also liable, in the plains of India at all events, to melanism, becoming either irregularly splashed with jet-black, or regularly washed or clouded with a dark smoky hue, as if it had bathed in ink. Both these variations occurred in two birds out of about a couple of dozen kept under exactly the same conditions in Calcutta. Their companions manifested no dislike to them.

The Rosy Starling (*Pastor roseus*) in confinement in Europe fades to a dirty cream-colour; in India it gets clouded with black, black edgings appearing on the feathers. A bird of mine, deposited at the Calcutta Zoological Gardens, and treated in the same way as about a dozen others, became almost completely black. The bird was in good condition, with the plumage glossy and sleek, and the colour looked quite natural. As these birds are always quarrelling, it was not easy to make out how its companions regarded it.

A pair of Striated Finches (Uroloncha striata) kept by a friend of mine in England in an out-door aviary many years ago became during one season heavily mottled with black all over the white belly; but they afterwards reverted to the normal colour.

Conversely, a Black-backed Porphyrio (*Porphyrio calvus*) at present in the Calcutta Zoological Garden has on one occasion moulted out with all the black parts mottled with white; but it has since become, and remained, black again.

A male Red Dove (*Turtur tranquebaricus*) in the same garden, living under the same conditions as many others of the same species and sex, became nearly all white over the normally vinous red part of the plumage.

One of many specimens of *Turtur damarensis* brought by me to the London Zoological Garden in 1892, had last year (1901) when I saw them become very largely white in big patches.\*

The male Golden Oriole (*Oriolus galbula*) of Europe, according to Bechstein, never retains its full yellow hue in confinement, but reverts to the streaky green plumage of the female.

The red summer plumage of the barred-tailed Godwit (*Limosa* lapponica) is not always assumed in confinement, for of a pair in the London Zoological Gardens last year (1901) the male was in red colour, but the female showed no sign of it.

\* By some accident these birds have never been registered in the Zoological Society's list, but I am quite certain about the species; I took specimens of the live Pigeons I brought home, to Count T. Salvadori who kindly identified them, being then at work on the group for the British Museum Catalogue of Birds.



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Similarly, the adult female Scarlet Ibises (*Eudocimus ruber*) in the Calcutta Zoological Gardens always remain of a rich salmon-pink, while the male shows stains of scarlet in places in the spring.

A young female bred in these gardens moulted out white feathers at first from her brown immature dress, whereas a young male's first adult plumage came out pink.

Some of the hens kept in Calcutta, on the other hand, assume in the breeding season a goitre-like enlargement of the throat; this never occurs in the cock. The fact that the species here remains red at all is noteworthy, as in Europe it becomes very pale, getting more so at each moult, whereas our adult birds here have remained equally bright for years.

The legs of Finches which in the wild state are black, become usually fleshy white after moulting in confinement, as is well known to fanciers in the common Goldfinch (*Carduelis carduelis*). I find the same thing happens with the Himalayan Goldfinch (*C. caniceps*) when kept in Calcutta, also with the Eastern race of the Linnet (*Acanthis linaria fringillirostris*). The toes are first affected.

## G. PATHOLOGICAL VARIATION.

In the cases above-mentioned, the birds seem to be healthy, but when a bird is in poor health, certain variations present themselves which are more or less constant and definable. They may occur under domestication or in the wild state, but are naturally more frequently observed in the former case, since a sickly bird cannot survive long in nature.

Baldness in certain places is very common; the lores, and in bad cases the whole space round the eye, are apt to become bald in the domestic Duck and its ancestor the Mallard, in unhealthy surroundings, as when confined in a coop. The nearly allied Spotted-bill (*Anas peecilorhyncha*) does not suffer in this way, nor does any other Duck so far as I know.

Baldness round the eyes also occurs in the Starling (Sturnus vulgarus) and sometimes in the Rosy Starling (Pastor roseus). In the latter species I have seen one or two birds affected while the rest, treated in exactly the same way, were exempt. The head of a tamed specimen of the Jungle Mynah (Æthsiopsar fuscus), which has become bald-faced while living at perfect liberty, is figured below. The resemblance to the normal state of affairs in the adult Rook (Corvus frugilegus), is obvious, and suggests a hereditary incapacity to retain the facial plumage in that species.

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HEAD OF JUNGLE MYNAH, ABNORMALLY BABE IN FACE.

The rump becomes bald in many birds, and the tail-coverts and lesser wing-coverts drop out.

Baldness over the whole head frequently occurs in caged birds; and I have seen it in a wild House Mynah (*Acridotheres tristis*) more than once. In this case the whole bare skin of the head was bright yellow like the skin round the eye, which is normally bare in this species.

In caged House-Mynahs in England (but not in India) I have seen this circum-ocular skin faded to white, while the bill and feet remained yellow. The white facial skin characterizes the young bird naturally.

A Cassowary (*Casuarius galeatus*) at the London Zoological Gardens last year (1901) showed a large amount of irregular naked skin on the back, which was coloured pink and blue, in faint imitation of the hues of the bare head and neck. In a Cassowary which recently died at the Calcutta Zoological Garden I found to my surprise that the skin on the body was dull white like human skin.

The overgrowth of the bill, claws, and scales of the shank is pathological, and is not necessarily due to old age or absence of wear, which cannot affect the scales of the shank. I have seen a Canary become very scaly-legged in its second year, while another, ten years old, had feet and legs as smooth as a bird of the year.

The feathers frequently become more or less reverted, as in frizzled fowls, in wild gallinaceous birds kept entirely under cover; this I have seen in India in several species of Pheasants and Quails. In one case a single hen Pheasant (the species was *Phasianus torquatus*) was affected, while a cock and several other hens, kept under the same conditions, were not.

H. SPONTANEOUS VARIATION UNDER DOMESTICATION.

While Darwin has very fully and completely gone into the question of the extent of the modifications which can be effected by selective breeding, little attention seems to have been paid to the range of spontaneous variation in birds under domestication, the material, in fact, on



which breeders have had to work. I shall therefore take a number of domestic or protected species in detail, and discuss the colour-variations to which each appears to be subject without the intervention of selection.

THE CANARY (Serinus serinus canaria). Dr. Bowdler Sharpe in The British Museum Catalogue of Birds, treats the Wild Canary of the Atlantic islands as an insular form of the European Serinfinch (Serinus serinus); it differs from this continental bird in darker colouration and longer tail. It varies much when not bred systematically.

Birds of the wild colour, called green in the fancy, are common; they are often mistaken by people not well-acquainted with Canaries for Mules or hybrids. They are the strongest in constitution. Yellow birds or lutinos are, as is well known, the commonest. They may be either "buff," *i.e.*, pale whitish yellow, or "yellow," which is bright yellow. If "yellow" birds are continually paired, the offspring is scanty in feather.

A pallid form is not rare, in which the plumage is pale brown with slightly darker streaks; this is the "cinnamon" of the fancy. Once I have seen specimens of a *dark* brown form among common singing Canaries in England. These birds, although undoubtedly pure-bred Canaries, showed in one or two instances no trace of green or yellow, being simply warm brown with dark streaks, and looking rather like hen linnets. White canaries have recently been bred. (*Feathered World*, June 13th, 1902, p. 1039.)

I have read of grey forms, but have never seen any such. Pied birds are very common; the marking is commonly asymmetrical. The parts most prone to exhibit dark feathers in light-pied birds are the secondary quills, feathers round the eye, and two outer tailfeathers. Dark-pied birds run to white in the tail. Cinuamons may . be pied, but no gradation seems to occur between cinnamon and green.

I have once or twice seen green birds among Chinese specimens with the central part of the quills and tail marked with yellow as in the Greenfinch. A male Green Canary I once knew for several years began to show yellow about the head with advancing age.

The bills and feet of Canaries are horny in the green, and fleshywhite in the light-coloured types. The retention of the dark colour in the legs is noteworthy, considering the evanescence of this in wildcaught captive Finches of other species.

In view of the variability of the tame Canary, the following opposite instances in allied Finches are interesting :---

Mr. G. C. Swailes (Avicultural Magazine, Vol. I., 1894-95, p. 118) gives his experience with the Twite in confinement (Acanthis flavirostris). A pied cock, about half-white, and a pure white hen, being paired, produced five young; the only two reared were both normally coloured.

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"This" says Mr. Swailes, "I expected, as I have reared a large number during the past few years from both white, pied, and cinnamon Lesser Red-polls, and have in-bred them, but have never had one vary in the least from the normal colour."

THE JAVA SPARROW (Munia oryzivora) of the East-Indian Archipelago has long been domesticated in Japan, and tame and wild specimens are now both commonly kept as cage-birds. It is not a variable bird in its wild state; I have never seen any variation in wild birds of the species, nor has Mr. W. Rutledge in his very large experience.

The tame-bred Japanese birds may either be pure white or pied with the normal colour. The dark colouring in this case is confined to the upper plumage as a rule, but is not very regular. The head is almost always pure white, and the tail also. The bill, feet, and eyelids are normal. Dr. A. G. Butler, who has bred the white variety, found that a young bird he reared was grey above till its first moult; paired with a normally coloured cock (which it did not desert for white ones) it produced two young like its own first plumage, one like a young wild bird, and two intermediate, all in the same brood. (Foreign Finches in captivity, p. 262).

Mr. F. Groser, who has also bred both forms in Calcutta, tells me that they kept distinct whenever they could find mates of their own colour.

The tame white birds are larger and stronger than the wild type. They are more phlegmatic, but also more spiteful; the small sexual distinction, in the stouter and larger head and bill of the male, is more marked. The song of the white birds is quite different, according to Dr. Butler.

THE SHARP-TAILED FINCH (Uroloncha acuticauda) of Eastern Asia has also long been domesticated in Japan, and its tame forms are the "Bengalee" of English fanciers. Dr. A. G. Butler, who in his Foreign Finches in Captivity beautifully figures the three tame varieties, considers with the late J. Abrahams that this little domestic Finch originated in a cross between the Striated Finch (Uroloncha striata) and the Indian Silver-bill (Aidemosyne malaharica). I cannot agree with this, as my observation of these birds leads me to conclude they are simply derivatives of the Sharp-tailed Finch (Uroloncha acuticauda); I have never seen one resembling the Silver-bill or the Striated Finch, and all three species are well known to me in life as well as in the skin. The late Dr. K. Russ, the greatest authority on small birds in captivity, gave Uroloncha acuticauda as the ancestor of the domestic bird. Some tame forms resemble the type, but they are generally pied with white, the amount of this colour varying from a few white feathers to complete whiteness. The pied markings are irregular and unnatural-looking. There is a cinnamon form, showing the markings of the dark-brown type on a fawn-coloured ground. This is generally pied with white, grading, as the dark-pied birds do, into complete whiteness, and pied irregularly like them.

Pure white birds are less common than pied ones, but more so than dark-brown typical or pure cinnamon birds.

There is no intergradation between the brown and cinnamon forms.

The bill and legs vary as in the Canary; they are normally coloured in normal or nearly normal types, fleshy white in cinnamon, white, and light-pied forms The upper chap may be black and the lower fleshy white, in correspondence with the head-marking.

The cinnamon and white forms are smaller than the dark-brown ones.

THE COLLARED DOVR (Turtur risorius). The exact origin of the domestic Turtle-dove is unknown; its varieties are of three types. The ordinary form is creamy-fawn with drab primaries and white tips to the tail-feathers except the central pair; a half-collar on the nape and the proximal half of all the tail-feathers below are black. The bill is black, the iris red, the feet purple-red, and the eyelids creamywhite. The sexes are similar, though the cocks are almost imperceptibly lighter about the head. The young have no distinct collar, have fleshy-coloured bills and paler red feet. This form does not vary more than a wild bird, and English- and Indian-bred specimens are alike.

There is also a white form with a flesh-coloured bill and paler red eyes; the pupil is often red (non-pigmented) in these. This may have a dark collar, but is generally without it.

There is an intermediate form, coloured generally as in the common type, but with the primaries white, collar drab, all tail feathers white but the two central, which are buff, and grey at base of tail below instead of black. The bill in this form is flesh-coloured and the irides light red as in the white birds. I have only seen this in India.

Mr. D. Ezra, to whom I showed birds of this intermediate form tells me he got somewhat similar birds by crossing the white and blackcollared fawn types. He is sure they were not pied or splashed as Pigeons often are.

I have seen in cages of these Doves specimens of a drab colour with with dark ring, identical in plumage with the wild *T. douraca* of Iudia, but in the absence of opportunities of studying these individuals I cannot say whether they were tame or wild specimens; I think the latter.

THE ROCK-PIGEON (Columba livia and intermedia) has been so long bred selectively that it is not a good species on which to study spontaneous variation, since it is hard to find it in a really unselected state. Both the Western and Eastern forms produce chequered individuals when wild.

By studying Pigeons not selected for colour, or living in a semiferal state, as in towns where they pick up their living in the streets, the following leading types are evident :--

(a) As in wild type; common, but not the most numerous.

(b) Silver, a pallid form, greyish cream-colour with the wing-bars and tail-tip dark drab; bill flesh-colour. Not uncommon. Correct for many breeds.

(c) Blue-chequer, with the back and wing-coverts mottled with black; very common, in fact the most numerous in semi-feral pigeons, and also occurring frequently among birds in a perfectly wild state.

(d) Silver-chequer, the corresponding marking in cream and drab.

(e) A sandy-red form with grayish white primaries, rump and tail; very common. Often the wings are chequered with whitish, when the bird is a red chequer.

(f) Silver-dun; a sort of ashy-grey, with dark-reddish-brown neck and wing-bars; no tail-bar; very common.

(g) Black, of a dull slaty shade, very common.

(h) Pure white; rare.

Intermediate pied and splashed forms are numerous, generally asymmetrical; the quills and tail are often more or less white, or again may be markedly darker than the body when this is or white. In this case the marking is symmetrical, but ill defined. Blue and black, blue and blue chequer, and blue chequer and black, grade into each other commonly; but not, as a rule at all events, any of the blue shades with red or silver; nor do these last grade into black as a rule.

The beak is fleshy-white in light forms, the feet and eyes remaining normal, except in whites, where the eyes are dark ("bull" of the fancy).

The pigeon certainly shows convincingly what can be done by careful selection of structural variations, for in its feral state it is not by any means a structurally variable bird. In form a lot of feral pigeons are as uniform as most wild birds, and much more so than some species.

THE BUDGERIGAE (Melopsittacus undulatus). This little Australian Parrakeet, known in books as the Undulated Grass-Parrakeet, has been exported only during the last half-century, and many are still brought over; but it is largely bred in captivity.

In domestication the usual colour is the typical one, but three varietal forms occur.

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One is a pallid form, of a general greenish-yellow tint with the dark markings faintly indicated; the blue cheek spots are present in full development. I have seen at least five of this form.

Another is a pure lutino, clear uniform yellow throughout, with pink eyes. I have seen two of this type.

Two blue specimens, in each case the offspring of yellow birds, have been known. (J. Abrahams, vide Mr. R. Phillipps, Avicultural Magazine, Vol. VIII., 1902, p. 75.)

One or other of the first two is being fixed by breeders, but I cannot say to which form the "Yellow Budgerigars" so often advertised belong. I have seen no pied, splashed, or otherwise intermediate forms.

THE BLUE MOUNTAIN LOBIKEET (Trichoglossus swainsoni) was bred yearly for about four years previous to 1890, at the Blackpool Aquarium and Menagerie, according to Mr. W. Osbaldeston (Avicultural Magazine, Vol. VIII., p. 167, 1902). Mr. Osbaldeston, after giving an account of the conditions under which the birds were kept, says "One year a very curious, handsome, 'sportively' plumaged bird was reared. The head was red with lacings of white, and the shoulders were tinted with green. The greater portions of all other parts of wings, body, and tail were of a bright chrome yellow, intermixed with green feathers here and there; and the tail feathers were tipped with red; making a really handsome, showy, and rare bird. It was a young bird in May 1891, and was alive some three years afterwads to my knowledge. I went many times to look at and admire this rare-feathered Lorikeet. . . On one occasion, I noticed that its claws had grown very long. It was always kept in the same cage with the others."

THE PHEASANT (*Phasianus colchicus*) has been more or less artificially cared for ever since the time of the Romans, and so may be fairly reckoned a protected bird. Its variations fall into two main types :---

The pallid "Bohemian" form, in which the cock's ground-colour is a lustreless buff, with the usual dark edgings to the feathers and dark neck almost devoid of gloss. I can find no account of the hen.

The white form, which is found in both sexes.

Intermediates between Bohemian and normal seem not to occur. White-pied birds are common; the white marking is irregular and mostly confined to the upper surface. Pied birds will produce their like if paired, and will give some pied offspring with normal birds; but a white and a normal bird will not usually produce pieds, though some whites may be bred from such a mating. (Tegetmeier, *Pheasants* for Coverts and Aviaries, 3rd edition, 1897, p. 150).

White specimens are weaker than normal.

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THE GOLDEN PHEASANT (Chrysolophus pictus) of China has been bred in confinement over a century.

It is generally true to the type, but a variety, the Black-throated Gold Pheasant, is known (*C. pictus obscurus* of Schlegel) in which the cock's cheeks and throat are dark brown instead of buff, and the scapulars blackish instead of bright red, while all the tail-feathers are barred, the central ones with the rest. The hen of this form is darker than that of the type, as also are the chicks. It is believed to be a variation which has arisen in captivity, as it is only known in that state.

As the Amherst Pheasant (*O. amherstise*) the only near relative of the Golden species, has a dark throat and barred central tail-feathers, the peculiarities of this form seem to be more probably due to a reversion to the ancestral type of the genus than to an approach to melanism.

Mr. P. Castang, the well-known wild-fowl dealer of Leadenhall market, tells me that this variety used to be more common, but was not liked, on account of its dull appearance.

THE SILVER PHEASANT (Gennaeus nychemerus) has given no variations in captivity.

THE FOWL (Gallus gallus) is obviously excessively variable in colouration. As I showed some time ago (Nature, Jan. 30, 1902, p. 297) the characteristic colours of all except the highly specialized pencilled, laced and spangled breeds occur in common Indian Bazaar fowls.

I stated on this occasion that the colouration of rufous with a black tail was not recognized as correct for any breed in hens, but in making this statement I overlooked the Nankeen Bantam breed, in which both sexes are thus coloured. This colouration is perhaps the commonest met with in domestic poultry allowed to interbreed freely.

A few more details may here be added :-

The colour of the legs and feet in unselected fowls varies much, being fleshy-white, blue-grey, black, yellow, or olive-green ("willow" of the fancy). The only intermediate form which occurs is the blackmottled white or yellow accepted for Houdans and Anconas respectively

The ear-lobe, as in the wild bird, varies from red to white; it may present a combination of the two colours. Creamy-yellow ear-lobes also occur. The ear-lobe is blue in the dark-skinned "Silky" breed.

The bill is dark as in the wild bird except in birds which have white or yellow legs, in which case the bill is of the same colour, sometimes marked along the ridge with black.

The naked skin of the comb and face, &c., is uniformly red as a rule, whereas the wild-bird's face is flesh-coloured. A dark purple face may occur, as in the Brown-Red Game, which is hence called

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"gipsy-faced." The whole skin, as is well-known, is dark in the Silky breed, as is also in this case the periosteum of the bones. This breed has white plumage, but usually dark-faced fowls are dark-feathered also. I have never seen a dark-faced *cock* in India except, of course, a "Silky."

The comb in mongrel fowls is usually single; but rose-combs often occur, and pea-combs less commonly. The single comb is always larger than in the Jungle-fowl, and higher and more arched in outline in the cocks. The wattles are also larger, and are developed in the hens, which is not usually the case in the wild bird. Small crests and a muff of feathers on the throat occur in mongrel fowls of both sexes, but not together as a rule. Tame hens are also often spurred, which is rarely the case in the Jungle-fowl, though Blyth obtained such a specimen. The legs and feet are always larger and coarser in tame fowls than in wild, and the tail is carried more erect.

The wattles may be occasionally aborted, and a median dewlap take their place. This tends to be the case in the Indian Aseel or fighting-cock; and in two fighting-cocks of a larger breed, from Saigon, I saw at Mr. Rutledge's establishment some time back, not only were the wattles absent and replaced by a dewlap, but there were no earlobes either. Their combs were small and non-serrated, and as the neck and head were all bare and red, the general appearance strikingly recalled that of a Condor (*Sarcorhamphus gryphus*).

THE PEACOCK (Pavo cristatus) varies at times in its wild state in India. Mr. Hume (Game-birds and Wild-fowl of India, Vol. I., p. 89) records, on Sanderson's authority, two hens of a dirty yellow. Mr. W. Rutledge once received a cock of the colour of a new copper coiu, as he described it.

Most tame Peafowl conform to the ordinary wild type.

White specimens are not rare, with fleshy-white bills and feet. Pied specimens are also not uncommon; the colouration, though not quite regular, and unlike a natural marking, follows certain rules, the neck, primary quills and belly being white, and the rest of the plumage coloured.

Most important of all is the Japan or Black-winged form (*Pavo* nigripennis of Sclater) in which the male has all the wing, except the primaries, black, glossed at the edges with blue and green; the primaries are chestnut with clouding of black along the shaft and edge. The thighs are also black in this form, and the train more glossed with copper than in the type. The hen in this variety is white with the upper surface grizzled with black, and longitudinal central black splashes on the rumpfeathers; the tail is black, and the primaries chestnut as in the male.

The feet are fleshy-white in both sexes.

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The young are all white in the down and first feather, with a pink flush on the wings; but the young cocks soon become dark. The variety has been abundantly shown by Darwin to arise in either sex as a sport from the type in domestication; it seems in one instance to have occurred wild. It is smaller and weaker than typical birds, and not a match for them; yet when they are allowed to interbreed indiscriminately the black-winged form swamps the other. Mr. Castang tells me that blackwinged birds will throw back to the type, but generally speaking the variety breeds true.

THE GUINEA-FOWL (Numida meleagris), although so recently domesticated, varies a great deal. I have discussed the colour-variations in Nature (June 5th, 1902, p. 126). Since then I have seen two or three of a type I had only previously seen in one pied bird, *i.e.*, lavender without spots. I find self-coloured birds of this type have barred primaries like the dark-purplish self-coloured birds.

Mr. L. Wright (*loc. cit. infra*) says that pied birds are the result of crossing white and coloured specimens.

There is also a form with white ground-colour and dark spots, but this I have never seen. (L. Wright's *Illustrated Book of Poultry*, Cassell & Co., 1890, p. 511). In all the forms the white of the lower cheeks invades most of the sides of the head and neck; and in most birds, even the normally coloured ones, the toes and more or less of the shanks are orange yellow. The white of the face also often invades the wattles, and both these and the face may be stained with blue.

The loose naked skin of the throat is much more developed in Indian than in English Guinea-fowls, often forming a dewlap an inch deep, and frequently coloured a bright sky-blue instead of dull purple.

I procured some time ago a normally-coloured male specimen with a pendulous throat-tuft of feathers coloured like the adjacent feathered part of the neck, of a plain purplish-slate.

THE TURKEY (Meleagris gallopavo) of Mexico was found domesticated when the Spaniards invaded America, and very soon was kept in Europe. It has not been bred selectively till lately.

The colour-variations in domestication are few and well-defined. The typical bronze form is not very common in Europe; and in India I have only seen it once in seven years' residence. This bird in colour exactly resembled the plate of this species in Elliot's Monograph of the Phasianides. The commonest type is one in which the bronze part of the plumage is replaced by black, bronze only in certain lights, the brown and white markings being retained.

The pure black form is also not uncommon.

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A white form with the body and tail-feathers subterminally barred with black in a very regular manner is not infrequent; the primaries in this are smoky-black on the inner and white on the outer web, not barred as one would expect. Pure white, fawn, and grey varieties occur in Europe, but apparently not in India.

The legs of dark forms of domestic birds are horn-colour, not pink as in the wild bird; in light forms they are pinky-white.

The occurrence of a downy crest in tame Turkeys has been discussed by Darwin; I have never come across an instance.

The tame Turkey shows a distinct increase in the size of the naked head processes and carunculations as compared with the wild bird; and the tame Turkeys of India, as Blyth long ago remarked, similarly show a marked increase of development of these parts as compared with European domestic specimens.

The feet are also coarser than in the wild bird.

THE MUTE SWAN (*Cygnus olor*) of Central Europe and Asia has been tame for many centuries in Europe, but has practically lived the life of a wild bird, largely shifting for itself, and often, when left unpinioned, reverting to the wild state, so that its exact natural range is doubtful.

The species has continued true to type except for the production of one well-marked variety :--

The Polish Swan (*Oygnus immutabilis* of Yarrell). In this the plumage is white at all ages; and the nestling-down is white. The feet are flesh- or clay-coloured instead of black, and the frontal kuob is smaller. Sometimes the cygnets are fawn-coloured in this form.

The variety is known to be propagated truly for at least one generation. It has occurred in a wild or feral condition, and has been bred from the ordinary type both in England and of late years on the continent.

Intermediate forms occur, for the characters are not sufficiently constant to allow of this type ranking as a species, to say nothing of its origin. Those few specimens which I have seen were, however, all readily recognizable and typical. The variation is not recorded to be at all sexually limited.

THE MUSCOVY DUCK (Cairina moschata) of Tropical America, was, like the Turkey, found in a domesticated state by the Spaniards, but it also exists wild.

Domestic birds are often nearly true to the wild type, but seldom completely so, as they usually show a few white feathers about the head. The head and upper neck are often grizzled throughout with black and white, ending very definitely, while the rest of the body remains normal.

Pied birds are common, the black being usually mostly restricted to the crest, back, and tail, but the marking is not very regular. The

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primaries are always white in pied birds. A variety with white body and black crest occurs, and has been fixed as the "Peruvian" breed.

A slate-grey variety occurs, but is rare.

Pure black and pure white specimens are not uncommon.

The bill and feet in the latter are pale sickly yellow, and the irides light blue, instead of the usual orange-brown.

The bill and feet remain normal in most birds, but the terminal portion of the toes and webs are often pale yellow in pied birds, the rest of the limb remaining normal. The bare face of the drake varies much in extent and development, being either moderate and smooth, or excessively carunculated. It is sometimes nearly all black instead of red, even in white birds. The duck has the bare face and carunculations like the drake, but on a smaller scale, and the development varies similarly.

The form is often heavy and clumsy, but the birds can generally fly, and often display a strong perching instinct.

THE GREY-LAG GOOSE (Anser ferus) of the temperate parts of the Old World is the oldest of all domesticated birds, a white tame variety having been known in the days of Homer. It is unusually variable in the wild state, according to Mr. Hume (Game Birds of India, Vol. III., pp. 63, 64). I have not noticed the variations he mentions, the comparatively few birds I have seen having been very uniform, but I have several times seen a slight difference of colour which he does not appear to have found, viz., the nail of the bill being horn-coloured instead of Mr. J. G. Millais (Wild-fowler in Scotland, p. 31) records a white. white Grey-lag which for four winters frequented the Tay Valley with others of its species-thison the authority of a Mr. C. M. Innes, who ultimately wounded but lost it.

This goose has varied very little in colour, presenting only the following types :---

(a) Resembling the wild form; correct for Toulouse breed.

(b) Silver-grey; only known as a sport in Toulouse ganders. The case, as reported by a well-known water-fowl breeder, Mr. J. K. Fowler, in Mr. L. Wright's Illustrated Book of Poultry (Cassell & Co., 1890). p. 559, is so important that it may be given in full :-- " Some time ago I bought for a change of blood a fine gander from a celebrated fancier, which differed from my own strain in colour, being of a beautiful silvergrey instead of dark like my own, though otherwise the markings were exactly similar. I bred from him that year some splendid stock, which all took after their maternal relatives in colour with one exception, consisting of a gander, which came of exactly the same hue as his sire. Since that time, in each succeeding year, I find one or two-seldom

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more—come silver-grey; and strange to say, they are always ganders, and generally remarkably fine, and superior to their brothers. I have never yet bred a single goose of this lighter shade."

(c) Pure white, correct for Embden and Sebastopol breeds.

(d) Sandy-coloured; never seen by me. "Sandy-coloured (common) geese are not infrequent in some parts." (Rev. Dr. Goodacre on The Question of the Identity of Species of the Common Domestic and the Chinese Goose, P.Z.S., 1879, p. 711.)

The bill and feet in all tame birds are usually orange, but still a good many have flesh-coloured feet. The irides are dark except in white or light-pied birds, wherein they are blue.

Pied intermediates are common, ranging from white-quilled birds to the more common type of white body with grey neck and head, patch on back, and one on each flank. Ganders are almost always white in rough-bred geese; seldom grey, and still more seldom pied.

Mr. Hewitt found that in crossing the Embden and Toulouse, for which he preferred females of the latter and a male of the former, that the goslings came "'saddle-backed' in the feather, with the head and upper portion of the neck grey, and a patch of the same colour on the thighs, the whole of the remaindor of the plumage being white. Singularly enough, the majority of the young ganders and a fair proportion of the geese thus bred are slightly crested, though this peculiarity is not possessed by either parent." (Cassell's *Illustrated Book of Poultry*, p. 562.) Tame geese are much heavier in build than wild, but can fly.

THE PINE-FOOTED GOOSE (Anser brachyrhynchus) produces a variety with the feet and band across the bill orange instead of pink in the wild state (see Sir R. Payne-Gallwey, Letters to Young Shooters, p. 69, foot-note). The same variation occurs in semi-domestication.

Mr. Cecil Smith, in Mr. H. E. Dresser's Birds of Europe (pp. 71, 72, published 1878), writes :--

"My original pair were perfectly true Pink-footed Geese, there being no suspicion of orange about the bill or legs and feet of either; the colour on these parts, however, became very pale and faded after the breeding-season, and continued so long into the autumn, but towards the end of autumn it got much brighter, the colour being most intense at the beginning of the breeding-season; it is the same with those of their young which have orange legs and bills. This pair hatched three young in 1872; of these only one reached maturity. The legs and bills of the young were all alike, very dark olive-green, showing no trace of pink as long as they were in the down; but soon after they began to assume their feathers the colour on the legs and bills began to disclose itself, and those parts in the only survivor of this brood were

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and still are orange. Since then the old ones have bred every year, some of the young having orange legs and bills, and some pink like their parents. This year the first orange-legged one, a female, had a brood, some of which had orange and some pink bills and legs. I have never seen any mixture of the colours, the legs and bill being either bright orange or bright pink; there seems to be no gradation between the two. As to the bills, the dark portion (that is, the nail and the base) remains the same whether the other part is orange or pink; in fact, the only part of the bill that shows any change is the part which in the Pinkfooted Goose is usually pink."

THE CHINESE GOOSE (Cygnopsis cygnoides) of Eastern Asia has long been domesticated in China and has been known as a tame bird in Europe for more than a century.

This Goose as usually seen in England shows two varieties. One in which the colour of the wild type is preserved throughout, and a pure white type, with bill as well as feet orange. I do not remember seeing intermediate pied forms, which no doubt occur.

The bill is shorter than in the wild type, and at the base there is a fleshy knob, level with the forehead above, and noticeably betterdeveloped in the male. The form is of course heavier than would be the case in a wild bird.

The species can be modified to a greater extent, for the large Swatow breed, while typical in colour, has a very large knob, a pendulous feathered dewlap and abdominal fold.

A smaller lighter breed is imported to India from China, inferior in size to the type and much darker and greyer in colour, with the feet as well as the bill black, only just tinged with orange. There is no gular or abdominal flap, but the frontal knob is well developed, and the beak short.

The geese kept in India were considered by Blyth to be hybrids between the Chinese and the common goose, but so far as I have seen they show, in colour at all events, no trace of the latter. Their colour is not very often completely normal, as they frequently show some orange at the base of the beak, a white band of feathers round the base of the upper mandible, and a more or less perfect white belt across the breast. White birds are as described above. Pied birds are common, and usually have the dark colour on the back, flanks, and head. They are just as often ganders as geese, so that white is not sexually limited in this race.

The nasal knob is never very large, and grades into complete absence. Two young specimens imported direct from China, and normally coloured, had each a small round tuft at the back of the head.

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The MALLARD (Anas boschas) of the Northern Hemisphere has been domesticated since the beginning of the Christian era, and has given rise to several distinct breeds. It varies to some extent when wild, and a great deal in an unselected condition, as when kept in India; the varieties are best considered separately as to sex.

The leading variations in drakes are as follows :---

(a) As in wild type; rare; correct for Rouen breed.

(b) As above, but no bay breast or white collar, the pencilled-grey of the under-surface running up to the green neck; common; said to supervene with old age in domesticated birds of recent wild stock.

(c) As in wild type, but bay of breast running cloudily along flanks; common.

(d) Black with a white patch on breast.

(e) Blue grey but with the usual markings; breast warm brown.

(f) Pure white; correct for Aylesbury, White Call, and Pekin breeds, the last-named being tinged with yellow.

Intermediate types are very common, generally irregularly marked; the breast is the first part to show abnormal white feathering, then the wings. I have never seen a *pure black* duck among mongrel Indian birds.

One pied type recurs so frequently, in various colours, that it deserves special mention. In this the head, breast and shoulders, and hinder part of body are coloured, the rest white. This is the correct marking for the new Indian Runner breed, in which the coloured part of the plumage must be fawn in tint.

As in the fowl, the female varies more than the male :---

(a) As in wild type; rare.

(b) As above, but light and dark head-markings obsolete, all head being uniformly speckled; speculum often whitish or brown like rest of wing.

(c) As in wild type, but lighter; throat and eyebrows white, belly shading into white; speculum normal; common.

(d) As in wild type, but ground-colour much darker, rich warm brown, correct for female of Rouen breed; common.

(e) Black with white patch on breast; speculum often whitish; common.

(f) Blue-grey, often with dark edgings to the feather; not uncommon.

(g) Pure white; correct for Aylesbury and other white breeds.

(h) White, with coloured speculum and some dark colour on rest of wings. Drakes are never marked like this.

The intermediate types are very numerous; the markings in pied J. 11. 23

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ducks are the same as in pied drakes, which is remarkable when the great natural difference between the sexes is considered. For instance, the type with white neck, wings, and belly, and coloured head, breast and stern, corresponds closely with the drake so marked, and is correct for the female of Indian Runners.

The colour of the bill varies much; the iris, however, is not noticeably variable, being always dark as in the wild form. The legs and feet are always orange except in black and dark black-pied birds, where they are black or black with orange toes respectively; I have also seen some light brown types with dark olive feet, in females. The female's beak is extremely variable, usually a mixture of orange and black in varying proportions; but it may be black-and-slate in the darker and some of the lighter types. In white birds it is generally orange, but should be fleshy white in the Aylesbury, a colour not seen in Indian mongrels.

The drake's bill varies much as the duck's, being most commonly yellow or orange, often pied with black at the ridge and base. I never saw dark olive legs in a drake; except in black or black-pied birds they are always orange. The legs and general form are always coarse.

The OSTRICH (Struthio camelus) has been domesticated for thirty years in Cape Colony (Mr. C. Schreiner, Zoologist, 4th series, Vol. I., 1897, pp. 99, 100).

An abrupt variation occurs in the colour of the naked skin, which is fleshy in some individuals, and grey of a dark or light shade in others. This difference of skin colouration is the main point relied upon to distinguish the various wild races now ranked as species. The plumage of the cocks varies from jet-black to rusty brown, the latter hue predominating in the moister coast districts. They may be more or less spotted with white, and in some the body feathers are curled. The hens vary from dark rich brown to light brown, grey, or ash; they may have wing and tail-plumes white, or be barred with white; and a male-plumaged specimen was in Mr. Schreiner's possession.

#### I. MORAL VARIABILITY.

Variation in disposition is very familiar to bird fanciers, and as examples I may perhaps be allowed to detail some observations I made recently on two members of the Babbler group (*Timeliidae* or *Crateropodidae*) the Red-billed Liothrix (*Liothrix luteus*) and the striated Reed-Babbler (*Argya earlii*).

I had a couple of dozen of the former and one of the latter in a large cage together. Before the Babbler had been many days in the cage I began to notice the Liothrix often tickling and scratching its head, as 1902.] F. Finn-General Notes on Variation in Birds.

they habitually do to each other, but the recipient of this kind attention did not try to return it.

After a little time I introduced eight more Reed-Babblers into the cage, six adults and two young birds. They fraternized with each other and the other member of their species, but before long I had to remove one bird, a young one, for bullying the Liothrix. Twice I caught it holding a Liothrix by the nape and keeping it suspended in the air as it perched, in one case the victim losing many of its feathers on escaping. It also drove the Liothrix from the food in sheer wantonness, whereas the other Babblers displayed no such selfish spirit. The bird was amicable enough with members of its own species. The Liothrix bore no grudge against these for the bad behaviour of their compatriot, for after its removal I saw one of them caressing one of the remaining Reed-Babblers in the usual way. But I never saw these take any trouble to return the compliment, any more than did the solitary individual. However, I did not long keep them in the company of smaller birds.

The Liothrix itself varies in temperament, although usually to be described as tame though nervous, harmless and good-natured; of the two dozen birds alluded to, one, a fine male with a large stout bill and somewhat clouded with black below (A) was inquisitive, always coming near me when I approach the cage; but he would not usually take food from my fingers. He was fonder of seed than any of the rest, and was not mischievous, though well able to hold his own. The others did not dislike him on account of his colour variation, unsightly as it was. Very likely his fondness for seed was responsible for the change.

Another bird (B) also a male, with a very short bill, was tame, would feed from the fingers, and was slightly inclined to be mischievous. When I put in an unfledged Paradise Flycatcher (*Terpsiphone paradisi*), this specimen made several attempts to pull it off the perch by the tail. B was not spiteful, but A, in spite of his bigger beak, was afraid ' of him.

A third male (O) normally coloured, with largish bill, was very tame, alighted on a food tray while I had it in my hand, and would peck from my fingers. It pecked several times at the head of the young Flycatcher above alluded to, and also bullied a young Tailorbird (*Orthotomus sutorius*) I put in experimentally. The second bird mentioned made no attempt to molest this little creature, in spite of his inhospitable behaviour towards the Flycatcher a few days previously. Nor did most of the other specimens touch either young bird, so that the interference was unusual in this species. On one occasion I saw O mischievously jerking and pulling B by the tail, while another was combing B's feathers. Here, then, we have in two species of the same natural group considerable variation in disposition, both individual and specific.

### J. VARIATION IN MENTAL POWERS.

- It is familiar to bird-fanciers that some individuals of a species learn to speak or sing with greater facility than others.

In talking Hill-Mynahs (*Eulabes intermedia*) and Parrots of various species everyone must have noticed how few specimens can clearly enunciate words. I have only seen two of the above Mynahs which I should call good talkers, and one of these was more perfect than the other.

Sex may be supposed to make some difference, but two out of the only three clearly-speaking Parrots I have known were females; these were a red-and-yellow Macaw (Ara macao) and a common Ring-necked Indian Parrakeet (Palseornis torquatus). The other was an African grey Parrot (Psittacus erithacus) whose sex I do not know.

I also noticed in a brood of young Cormorants (*Phalacrocoraz javanicus*) I reared some years ago, that one was so tame that I could carry it about on my hand, while another was so wild and vicious that it was difficult to handle it at all.

Two young Bayas or Weavers (*Ploceus atrigula*) which I recently reared varied exceedingly in intellectual powers. Both were confiding, but one was also nervous and stupid, dashing off in aimless flights, and when coming to me settling sometimes on my nose; while the other's excursions were much more purposeful, and it would freely alight on my head or shoulder, or on those of others, hardly ever trying to settle on the face.

### K. VARIATION IN TASTE.

A few instances of special preferences or the reverse in diet seem worth recording.

Mr. Meldrum of this city tells me that a Bhimraj (*Dissemurus* paradiseus) in his possession will not eat cockroaches; the specimens I have kept have usually done so readily, although supplied, as his bird is, with other insects.

I have noted above (p. 179) in one Liothrix (L. luteus) out of two dozen kept under the same conditions, a strong appetite for canary-seed. I have heard of a pair which ultimately killed themselves by too much indulgence in this article of food, although they had a choice.

Sexual variations in taste have been fully dealt with by Darwin, and it is plain that individual inclination to breed outside the species frequently occurs. (Descent of Man, 2nd edition, 1899, pp. 414, 415).

The aversion to particular males, however, often alluded to, is very

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probably due in many cases to the male in question not being strong enough to coerce a refractory female. Darwin mentions this (Descent of Man, second edition, 1899, p. 417) with regard to the fowl; and in the case of the Pigeon and Canary, the more frequent occurrence of the phenomenon seems to be connected with the greater equality of the sexes.

I once witnessed a case in which a male domestic collared dove (*Turtur risorius*) confined in a hutch with a recently wild caught Turtledove (*T. auritus*) female, bullied the unfortunate bird till she was nearly scalped, with the result that ultimately she laid, although no young were hatched from the eggs.

Had she been the stronger bird, this would certainly not have happened; I have seen a female Muscovy duck repulse ignominiously a male common drake which tried to pair with her.

The converse case, of a cock strongly objecting to a particular hen, has been recently recorded with the fowl by (Bateson, Royal Society Reports to the Evolution Committee, I., 1902, p. 100).

### L. VARIATION IN HABITS.

Some habits of birds, such as the method of showing off to the female, of manipulating food—with or without the use of the feet—seem remarkably constant, but the ordinary way of living is subject to considerable variation. Darwin and Wallace have given a good deal of evidence on this head, and perhaps it will not be considered out of place if a little more be added.

The Pariah-kite of India (*Milvus govinda*), habitually takes cooked vegetable food in default of meat, such as boiled rice, bread, &c.

The White-breasted Kingfisher (*Halcyon snyrnensis*), a bird of varied general feeding-habits, as it takes both fish and land-animals such as earthworms, occasionally practises piracy; one which haunts the tank in the Museum grounds has taken to robbing the Dabchicks (*Podicipes albipennis*) living there of their fish; I have seen it make several attempts, one at least successfully.

The King-crow (*Dicrurus ater*) of India, although usually preying for itself, also practises piracy at times; and though normally insectivorous, it will also attack small birds and fish.

The Indian House-crow (Corvus splendens), though usually carrying objects with its beak like Passerine birds generally, may be occasionally seen carrying something in its feet like a bird of prey. As the object is always according to my experience, valueless, a leaf, bit of dry cowdung, or a stick, it would seem that the prudence of the crow prevents the bird from experimenting on articles of food in this way, lest they be lost.

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This crow certainly does learn new habits; those at the Museum

are afraid to fish things out of the tank, but down by the Hooghly they take objects off water readily. At the Grand Hotel in Calcutta they have learnt to catch food on the wing, owing to being fed by residents in this way.

Mr. A. L. Butler observed in the Andamans one individual of the Chestnut-headed Bee-eater (*Melittophagus swinhoii*) capturing small beetles while clinging to a bank, while others of the species were hawking insects on the wing in the ordinary way. (*Journ. B.N.H.S.*, Vol. XII., p. 561).

I had a common domestic drake which learned to fly up and perch on a seat in company with two Muscovy ducks kept with him. His general power of flight also improved much by his association with these birds, which, as usual with the species, were much more powerful and ready with their wings than common ducks.

Rai R. B. Sanyal Bahadur records that some Wigeons (Marca penelope) and White-eyed Pochards (Nyroca africana) kept in an aviary with many other birds learned in this way to fly up to the perches and sit there. (Hand-book to the Management of Animals in Captivity in Lower Bengal, p. 309, Calcutta, 1892).\*

I observed that some common Teal (Nettium crecca) confined in another aviary at the same garden (Calcutta) used to perch on the narrow ridges of nest-boxes. This was also in all probability an acquired habit, as this Teal seems never to perch when wild. No other non-perching ducks in the same aviary acquired the habit, not even the Garganeys (Querquedula circia), nor the Wigeons or White-eyed Pochards, though perching ducks were confined with them.

#### CONCLUSIONS.

In most of this paper I have merely tried to record some facts which may be useful to students of variation, but with regard to the facts concerning the range of variation in domesticated birds given in Section H. (p. 164), the following conclusions seem justifiable:—

Domestication seems not to induce variation directly; it merely gives varietal individuals a better chance of surviving and multiplying, and of producing secondary varieties by crossing with each other or with the type. The frequent occurrence of varieties in the wild state shows that the tendency to produce them is there just as strongly.

Were domestication to act in inducing variability by the change of conditions, we should expect to find our protected species varying more

\* The writer includes the Mandarin Duck (A. galericulata) as one of the species that acquired the perching habit; but this bird is naturally a percher.

in proportion as they were more unnaturally treated. But this is not the case; the Java Sparrow and Collared Dove, bred for generations in small cages, do not vary more than wild birds; whereas the Pheasant, which lives almost a completely natural life, is more variable than these.

Climate does not *directly* induce colour-variation. The same colours constantly recur in domestic birds in Europe and in India, without variation in intensity. But some types of colouration may be absent altogether in one or the other country. Here an *indirec*/ action of climate, weeding out colours which are correlated with an unsuitable constitution, may be reasonably suspected.

For so soon as a correlation between colour and some constitutional quality is detected, it will probably be found that selection steps in even in domesticated birds not bred for colour. Fighting cocks are very variable in colour, being judged solely by courage and prowess in the pit, and hence not selected deliberately for colour-points. Yet the quasi-natural selection to which they are exposed seems to act in suppressing some few colours; cuckoo-coloured (barred-grey) birds—so common among unselected fowls—were rare in English fighting game, and I have never seen a cuckoo-coloured Aseel or Indian game-cock. In this breed, which is even more courageous than the English game, and has to fight under more trying conditions, the range of colour is altogether more limited than among English birds; the hen, for instance, is never of the wild "partridge" colour, and very rarely shows any approach to it, though the cock usually has some likeness to the male of *Gallus gallus*, the Red-Jungle Cock, his ancestor.

On the other hand, the duck, domesticated in so unnatural a climate as that of India, shows much the same variations as it does in England.

Every species we have taken under our protection varies in its own way; the two tame geese, Grey and Chinese, so nearly allied that they produce a fertile hybrid, have not an identical range of variation.

The variations of domestic birds have mostly an abnormal and unnatural appearance, like casual variations among wild forms; this may in some cases be explained. For instance, most domestic species produce a white variety, and albinoes are common among wild birds; yet these are usually unfitted for the struggle for existence on account of their colour, and accordingly we find few white species. Those we do find may reasonably be supposed to have originated as albinistic sports; in the family where white species are commonest—the Herons we still find yet other species which commonly produce temporary or permanent albinoes. A bird with the primary quills only white at once looks unnatural, and yet it is an extremely common variation among both tame and wild birds. Examination of the white quills, either in pied or pure white varieties, will very commonly show them soft and abraded at the tips, a serious matter for a wild bird. Accordingly we find that white-quilled *species*, like white ones, are almost always large and strong, and well able to defend themselves.

Why no species is motiled or splashed or irregularly pied, as tame forms and varieties commonly are, is less easy to understand. But the fact that constitutional disturbance seems to cause a bird to become temporarily so marked, may afford a clue. Such birds may be weak in constitution, and unfitted to live in a wild state. The hens do not appear to object to them, witness the case given by Darwin of Sir R. Heron's pied Peacock, and that of the pied Black bird recorded by Mr. Bucknill in his *Birds of Surrey*. This latter was evidently weakly; his whiteness increased with age, and he died from natural causes.

At the same time, some species seem incapable of producing mottled or irregularly pied varieties; I have never seen such in the Turkey or Collared Dove, and the Guinea-fowl is never mottled or splashed, although its pied markings are not quite as regular as a wild bird's. The Canary, on the other hand, is particularly prone to be asymmetrical and irregular in its markings, as also is the Pigeon.

The tendency of so many domestic birds to become coarse and heavy. looking, especially marked in the Water-fowl, is probably due to the adding up of small variations in that direction; these would, especially on birds performing long and perilous migrations, be weeded out in each generation; but if allowed to breed, would, in accordance with a tendency well-known to fanciers, produce offspring coarser and heavier even than themselves, till a conspicuous difference in appearance resulted.

It is possible that the tendency to the increased production of fleshy out-growths, like the combs and wattles of poultry, is connected with this assumption of a course habit of body; but it must be remembered that such processes are peculiarly susceptible to external influences and constitutional changes, and, hence, if the environment is ever proved to produce an inherited effect on any bird, might be expected to show this effect early and conspicuously.

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PLATE VII.



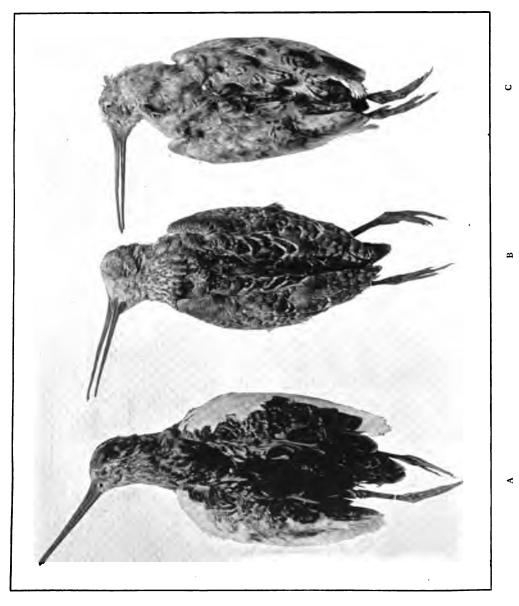
BABAX LANCEOLATUS.

PARUS PALUSTRIS.



.





VARIATIONS OF PINTAIL SNIPE (Gallinago stenura).



.





NETTIUM ALBIGULARE.

A. Normal form.B. White faced variety.

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Names of New Genera and Species have an Asterisk (\*) prefixed.

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NOTE ON THE PUBLICATIONS

OF THE

ASIATIC SOCIETY.

The Proceedings of the Asiatic Society are issued ten times a year as soon as possible after the General Meetings which are held on the first Wednesday in every month in the year except September and October; they contain an account of the meeting with some of the shorter and less important papers read at it, while only titles or short resumés of the longer papers, which are subsequently published in the Journal, are given.

The Journal consists of three entirely distinct and separate volumes : Part I, containing papers relating to Philology, Antiquities, etc. ; Part II containing papers relating to Physical Science; and Part III devoted to Anthropology, Ethnology, etc.

Each Part is issued in four or five numbers, and the whole form three complete volumes corresponding to the year of publication.

The Journal of the Asiatic Society was commenced in the year 1832, previous to which the papers read before the Society were published in a quarto periodical, entitled Asiatic Researches, of which twenty volumes were issued between the years 1788 and 1839.

The Journal was published regularly, one volume corresponding to each year from 1832 to 1864; in that year the division into two parts above-mentioned was made, and since that date two volumes have been issued regularly every year. From 1894 an additional volume, Part III, has been issued.

The Proceedings up to the year 1864, were bound up with the Journal, but since that date have been separately issued every year.

The following is a list of the Asiatic Society's publications relating to Physical Science, still in print, which can be obtained at the Society's House, No. 57, Park Street, Calcutta, or from the Society's Agents in London, Messrs. Luzac & Co., 46, Great Russell Street, W. C.; and from Mr. Otto Harrassowitz, Leipzig, Germany.

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1858 (5), 1861 (4), 1862 (5), 1864 (5), 1866 (7), 1867 (6), 1868 (6), 1869 (8), 1870 (8), 1871 (7), 1872 (8), 1873 (8), 1874 (8), 1875 (7), 1876 (7), 1877 (8), 1878 (8), 1879 (7), 1880 (8), 1881 (7), 1882 (6), 1883 (5), 1884 (6), 1885 (6), 1886 (8), 1887 (7), 1888 (7), 1889 (10), 1890 (9 and 2 Supplts.), 1891 (7), 1892 (7 and Supplt.), 1893 (11), 1894 (8), 1895 (7), 1896 (8), 1897 (8), 1898 (8), 1899 (7), 1900 (7), 1901 (7), @ 1/8 per No. to Members and @ 2/ per No. to Non-Members.

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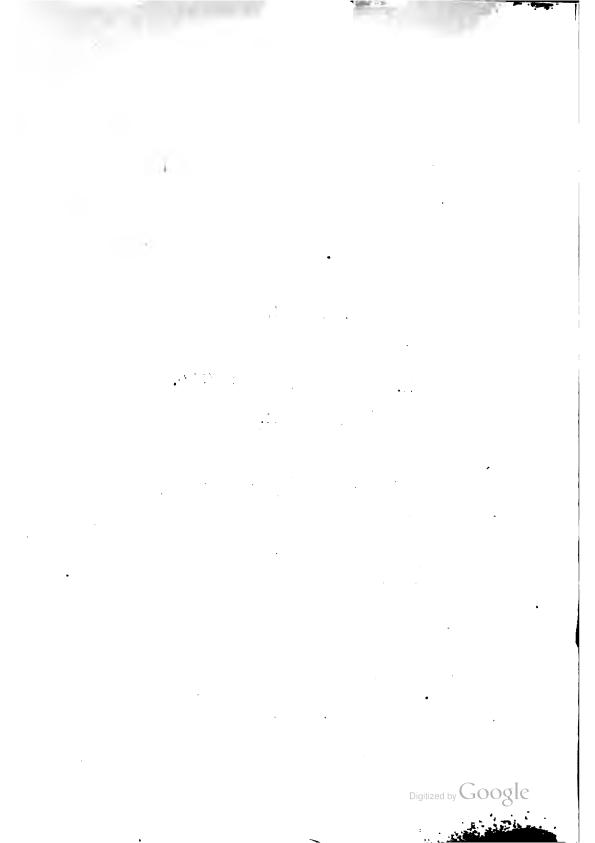
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FOR

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(Nos. I and II.-1902): with Index.

BDITED BY THE

ANTHROPOLOGICAL SECRETARY.

"It will flourish, if naturalists, chemists, antiquaries, philologers, and men of science in different parts of *Asia*, will commit their observations to writing, and send them to the Asiatic Society of Calcutta. It will languish, if such communications shall be long intermitted; and it will die away, if they shall entirely cease." SIR WM. JONES.

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1908.



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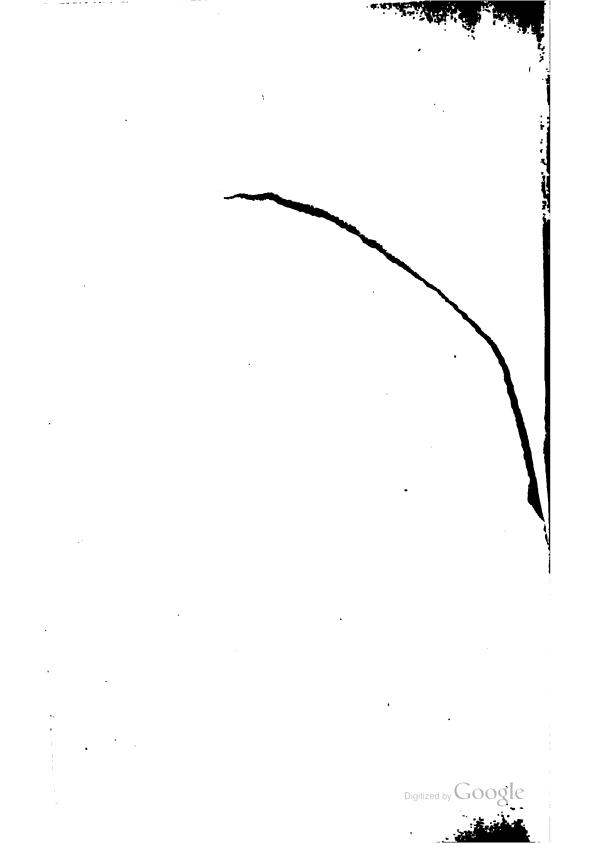
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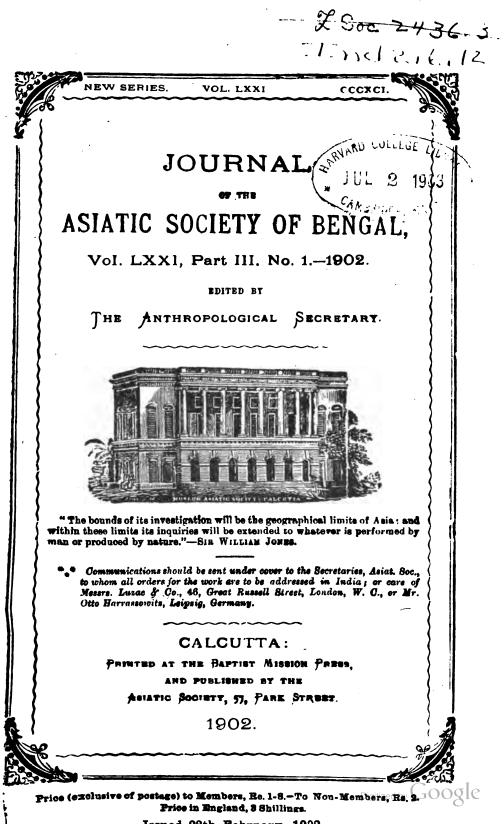
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Issued 28th February, 1902.

JOURNAL

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Vol. LXXI. Part III.-ANTHROPOLOGY AND COGNATE SUBJECTS.

No. 1.-1902.

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JOURNAL

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Vol. LXXI. Part III.—ANTHROPOLOGY AND COGNATE SUBJECTS.

No. 1.—1902.

Dhelāi-oaņdī. A form of tree worship.—By MAHĀMAHOPĀDHYĀYA HARA-PRASĀD SHĀSTRĪ.

[Received 29th April 1899; read 3rd May 1899.*]

About twelve years ago, while taking a stroll in the fields to the east of Naihāți in the district of 24-Perganas, I was struck by seeing people picking up clods of earth and throwing them at a date tree close to the road on the left. In the course of half an hour I noticed four or five persons doing that.

Being curious to know why they did so, I asked one of them, and he told me that a *Caṇḍī*, a female deity —a form of Durgā, Çiva's consort resided in the tree, and is propitiated by offerings of those lumps of clay. I use the word "offering," but he used the word *Naibedya*, that is, an offering of uncooked eatables; so the *Caṇḍī* is supposed to eat the lumps of clay. Unlike the propitiation of other deities who grant boons enjoyable only in the world to come, the propitiation of this deity is followed immediately by a great relief, and the relief is that children crying at home are at once pacified. I had then a child about a year old whose cries often vexed the whole family, so I took a clod and threw

This paper was kept back from publication as the Author hoped to add to it.
 J. III. 1



it at the date tree. On approaching the tree, I marked two things that the lumps of earth had covered several square yards of the ground to a height of eight or ten feet all round the tree, and that the tree was never tapped, so that it appeared like a giant among the oftentapped, indented, moribund date trees.

What the consequences of my offering to the date tree were, I do no remember, but I told the thing to several of my friends; and one of them informed me of the existence of a similar tree about half a mile north of Naihāți on the road leading from the Gourepore Mills to **Mā**jipārā. Curiosity led me to pay a visit to that tree also, and I found the same thing there too.

Ten years later, when I resolved to write on the subject of this curious worship, I thought it proper to pay visits to my old friends again. The new kutcha road from Naihāți to Amdangā had been made, and the āsthān, or seat of the deity, has fallen to the right and a few yards away from it. I had no difficulty in recognising the mound of earth. The old tree at the centre of the mound was dead, and its dried stump only occupied the old position, but by its side another tree had grown up to the height of the old one and was enjoying the offerings of the passers-by.

On asking a rustic, whose house was situated in the next village, I learnt that, instead of lumps of earth, sweets are often offered, sweets such as sandes and vätāsā, and that the propitiation of the deity is followed, not only by the pacifying of the crying child, but also by other boons such as the birth of a child, the obtainment of a situation, success in litigation, &c. I asked him if any mantras were used with the offerings and was answered in the negative. I also asked him whether there was any priest of the deity, and received a similar answer. Then I asked him what becomes of the sweets that are offered, and he said, they are picked up by cow-herd boys.

The old man gradually became communicative and told me of many miracles displayed by the presiding deity of the tree. He said that a neighbour of his once ventured to tap the old date tree (and he pointed out to me the mark of the tapping on its dry stump), but the man who ventured to commit such a sacrilege died in the course of a month by vomiting blood. He also told me of a hooded serpent which often came to the tree and which is really the Candi.

Thus in the course of ten years I found there were great changes in this very simple tree worship, the offerings had improved, the sphere of usefulness of the deity had expanded, a myth had grown up, and it only remained for a priest to appear in order to raise the worship to the dignity of a cult.

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When I visited the other date tree, I found the same improvements there too.

Since my attention was directed to this form of newly growing tree worship, I have been informed of several other date trees in the same neighbourhood enjoying the same consideration and worship. There are two near the Kānchrapārā station, one to its north-east, on the khāl which is an old bed of the Jamna, at a place named Kantāganj, and the other to the south-west of the station and to the west of the locomotive workshops, near the Shāh-dighī, an old tank with huge banian trees, said to have been excavated by Malik Sāhib about two hundred years ago when he founded the old mosque at Bāg. There is a third tree near Mājipāra on the road which runs from the Gauripur Mills to that village. There are a fourth at Candīgarh on the Āmdāngā road, a fifth on the old road leading to Nārāyanpur, (now very little used because of the construction of a pucca road from the Kankinārā Station to that village), and a sixth at Mandalpārā.

I cannot refrain from relating an instance of a practical joke, played by one of my Brahman neighbours on the credulous villagers of Kämtäin the Jhenida sub-division of the Jessore district. He was very foud of goat's flesh, but in a remote place like Kāmtā goat's flesh is a rarity. One must one's self have a goat killed if one wishes to partake of its flesh. My neighbour had a small garden attached to his residence, and in it were some clumps of plantain trees. He cut one of the plantain trees to the ground level and covered it with clean earth. As soon as a new leaf came out, he cut it to the ground level and covered it with clean After this process continued for some months, it was time for earth. the plant to shoot out its large flower-stalk which is called mocā. The young man one night cried out, as if in a dream, that Candi came to him and told him she would appear in the form of a mocā in his garden. At first nobody believed him, but when in the course of a few days the dark red flower-stalk began to make its appearance, the credulous people thought it was the living Candi. He then declared that Candi would be propitiated only with goats' flesh, and would grant any boon when so propitiated. Many poor kids were sacrificed and the Brahman had meat to his fill, but in the course of two or three months when young plantains began to make their appearance, his trickery was exposed and he was discredited. This Candī was named the Mocāi Candī.



[No. 1,

On North Indian Folk-tales of the "Rhea Sylvia" and "Juniper Tree" Types.—By SABAT CHANDRA MITRA. Communicated by the Anthropological Secretary.

> [Received 31st December 1898; read 1st March 1899; and subsequently revised by the Author].

English folklorists have classified all folk-tales hitherto published under seventy heads or types, each type or story-radical being based on the characteristic elements of a particular group of tales.

One group of folk-tales has the following incidents for its essential features. A wife, being jealous of a child born to her husband by a co-wife, substitutes a stone, a bird or an animal for the new-born child, and causes the new-born child to be abandoned in a forest or cast adrift in a river; the child is discovered by a low-born man, and is saved and brought up by him; the step-mother, hitherto supposing the child to be dead. accidentally discovers one day that he is alive, and therefore sets him to perform some difficult task in the hope that he will perish in the attempt; but the youth surmounts the difficulty and accomplishes the task, to her discomfiture; ultimately, by accident, the father discovers that his wife, the child's mother, whom he has neglected or banished and has cruelly treated, had given birth to a real child, and how the jealous co-wife had duped him; the youth is finally recognised, and his deserted mother is reinstated in her position and restored to her husband's love.

The story-radical or type fixed by the Folklore Society of Loudon, that makes the nearest approach to this group of tales, is the *Rhea* Sylvia type, of which the essential elements have been thus stated :*-J. The mother is either killed, or leaves the children for a few minutes;

2. They are suckled by a wild beast ; .

3. They pass through various adventures; and ----

4. Are finally recognised and raised to the throne.

But the group of folk-tales referred to above, the North Indian variants of which I describe and discuss below, is not classifiable under the *Rhea Sylvia* type. The elements of the former group differ in many essential features from those of the *Rhea Sylvia* type, as will appear from the following specimen of a Bihari folk-tale of this group, which is now published for the first time.

A Raja had two wives; the elder Rani had no child, and he had

* The Handbook of Folklore. London: David Nutt. 1890, p. 121.

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therefore married the younger in the hope of having a son and heir by her. In course of time, the younger Rani became enceinte. As the time of her confinement drew nigh, he gave her a bell, with the instruction that she should ring it when she should be taken with the pangs of childbirth, so that he might know from its tinkling and come to assist her. One day shortly afterwards the younger Rani, in one of her listless moments, rung it violently, and the Raja hearing it hasted to her palace and enquired whether she had been taken ill. Being answered in the negative, he left in a great huff, telling her not to ring the bell so wantonly any more. After that she was more careful. But the elder Rani, who was jealous of her, and the more so because the latter was about to become a mother, rang the bell one day in the younger Rani's absence. Hearing the bell ringing, the Raja went to the younger Rani's palace, expecting to find her in the pange of parturition, and was very much displeased to find that he had been hoaxed again. In reply to his enquiry, she declared that she had not rung the bell; but he would not listen to her protestations and left her in high dudgeon, swearing that he would not come to her assistance when she should really be in travail.

When the time of her confinement drew near, the younger Rani, who was quite unsophisticated, enquired from her elder co-wife how she should act when she should be taken with the pangs of childbirth. The elder Rani, who was secretly plotting to bring about the latter's estrangement from the Raja, advised her that, when she should begin to feel the pangs, she should blindfold herself with seven folds of cloth and lie down hiding her head in an empty kitchen-oven, and that she would in that position have a very easy delivery. As soon as the younger Rani began to feel the pains she acted according to the elder Rani's advice without any distrust. The elder Rani had arranged beforehand that, as soon as the baby should be born, it should be placed in an earthen vessel and set adrift in the river, that some stones should be substituted for it, and that information should be given to the Raja that the younger Rani had given birth to some stones. Finding that she was really in labour, the younger Rani violently rung the bell to apprise the Raja of her confinement; but having been twice duped before he did not listen to the bell-ringing, nor come to her assistance; and his absence greatly favoured the elder Rani's designs. Shortly afterwards. the younger Rani gave birth to a son, without seeing the child, as she had blindfolded herself; and the elder Rani's agents secretly placed the boy in an earthen vessel and set it adrift in the river, and, substituting some stones for the child, went to the Raja and informed him that the younger Rani had given birth to some stones, contrary to all expectation. Hearing this, the Raja was greatly disappointed, and his affection for the younger Rani began to wane.

In the course of years, the younger Rani gave birth to three more boys, but the elder Rani disposed of them also in the same way, that is, she caused them to be placed in earthen vessels and set adrift in the river, after having substituted stones for them, and gave the unsuspecting Raja to understand that, as on the first occasion, the younger Rani had given birth to stones. The Raja, whose affection for the younger Rani had already been very much estranged, became greatly enraged with her at the successive disappointments, and at length banished her from the palace, and relegated her to the position of a cow-keeper.

The earthen vessels containing the new-born babes floated down the stream and were discovered by a potter, who, having had no children of his own, took them home and made them over to his wife, telling her to bring them up with care and affection. In the course of years, the four foundlings grew up to boyhood. The potter, who doted on them, made four wooden horses with reins of jute, and gave one to each of the boys to play with. He had in the meantime become acquainted with the boys' parentage and the circumstances in which they had been cast adrift, and therefore told them to go to the village well (where all the women-folk of the village used to go to draw water) and play there by making a pretence of watering the wooden horses. The boys accordingly went to the well and, taking the horses to the water's edge, called out :

Kāthe ke ghodā, pāte ke lagām, pānī pih.

"Ho! wooden horses with reins of jute, drink water !"

As this pretence of giving the horses a drink of water caused much delay to the women who had come to draw water, the women all remonstrated with the boys upon the foolishness of their errand. Becoming angry with their remonstrances, the boys broke the women's earthen pitchers, and went on as before watering their horses. One of the women, who was bolder than the rest, said,—" Well, boys, how is it possible for wooden horses to drink water." The boys replied,— "How was it possible for your younger Rani to give birth to stones? If it was possible for her to do so, it is quite possible for wooden horses to drink water." It must be explained here that the potter had instructed the boys to give this reply, in case the womenfolk at the well should taunt them with the ridiculousness of watering wooden horses. That woman having been thus silenced, all the women went in a body to the Raja and complained of the conduct of the potter's fosterchildren.

The Raja sent men to prevent the boys from obstructing the

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women from drawing water from the well, but without success. At last, the Raja himself went to the well and, being struck with their handsome appearance and noble bearing, enquired of the boys who they were. They replied that they were the sons of a potter. Thereupon the Raja sent for the potter and learnt from him their true history. Discovering that they were his own lost sons, he took them to his palace and invested them with all the dignity and rank of princes of the royal blood. Regretting the cruel treatment he had inflicted on the younger Rani, he sent for her and restored her to her former high position and treated her with the same affection as he had formerly borne to her. He also ordered the wicked elder Rani to be placed in a pit and buried alive, with thorns above her head and beneath her feet.

Closely parallel to the above story is the Kashmiri folk-tale of "The Wicked Queens," which is to be found in Knowles' Folk-tales of Kashmir, pp. 405-408. In that tale, the favorite queen is delivered successively of two boys, but her jealous co-wives contrived, with the assistance of a wicked midwife, to substitute two pups for the boys and to take the boys away and drop them in a carpenter's shop. As in the Bihari tale, the disappointed king banished the favorite queen. The boys were brought up by the carpenter, unknown to the king. On one occasion, the king found the boys playing with a wooden horse and pretending to feed it with rice and make it drink water; and he taunted them with the absurdity of their action. But they retorted that, if it was possible for the banished queen to have given birth to pups, it was equally possible for a wooden horse to eat and drink. Struck with the absurdity of the story that he had been led to believe about his favorite queen, he made enquiry and found out how he had been duped, and how the favorite queen had been victimized by the The two reputed sons of the carpenter were proved to other queens. be his sons. The story (as is usual with this class of folk-tales) ends happily with the recall of the banished queen and the children, and with the banishment of the wicked queens.

From a comparison of the Bihari and the Kashmiri variants, it appears that they bear a striking similarity in the main incidents, and that the differences are only in the minor incidents. What is most remarkable in these stories is that the *dénoûment* is brought about by the "watering of wooden horses," and that the taunt about the younger Rani's having given birth to stones or pups arouses the Raja to the absurdity of what he had believed about her. They differ in the absence of the "bell-ringing" incident from the Kashmiri variant; and in some minor features, namely, in the thing substituted for the new-born child, and in the foster-father's occupation.

The "bell-ringing" incident occurs in a Bengali variant of the tale, known as "The Boy with the Moon on his Forehead." In this variant,⁶ a Raja gave his favorite queen a golden bell, telling her to ring it only when she will be taken with the pangs of child-birth, in order to apprise him of her confinement. The jealous co-wives prevailed upon her to ring it twice before her time; and he was greatly displeased, so that he did not attend her accouchement when she was really taken ill, although she rang the bell then. She gave birth to twins—a boy with a moon on his forehead and stars on the palms of his hands, and a girl As in the preceding versions, the co-wives, aided by the midwife, substituted a pair of pups for the twins, put the children in an earthen vessel and placed the vessel among the unburnt clay-vessels of a potter, in the hope that they would be burnt to death, when the potter should set fire to his kiln. By the merest accident, the potter discovered the babes and brought them up.

Coming to know that the twins were living, the co-wives hatched another plot to destroy them. They contrived to inform the girl, the potter's reputed daughter, of the existence of a wonderful ketaki flower (Pandanus odoratissimus), which was to be found on the other side of the ocean and was guarded by terrible Rākşasas. Seized with the desire of obtaining the flower, the girl induced her brother to go and fetch it. The boy crossed the ocean, dived into a tank, brought up a wooden box containing a couple of bees which were the life-index of the Rāksasas, and killed all the Rāksasas by crushing the bees to death. He also released from their thraldom a captive lady named Puspavati and triumphantly brought her home with the flower. It was Puspavati who brought about the dénoûment by telling the duped Raja the truth about his children, and the punishment of the wicked coqueens and the happy recall of the banished Rani and her children followed as usual.

We have now to discuss two variants of this story, in which the bell-ringing incident occurs, but in which the part of the foster-parents of the cast-off children is played, not by human beings, but by members of the brute creation. The first variant is the story called "Truth's Triumph" from Western India, and the other is the folk-tale entitled "The Boy who had a moon on his forehead and a star on his chin," from Bengal.

In the variant from Western India,[†] the Raja gives his favorite Rami Guzra Bai, who was a gardener's daughter, a golden bell for the same purpose as in the Bengali variant. As in the Bengali version,

- * Day's Folk-tales of Bengal, pp. 236-256.
- + Frere's Old Deccan Days. Ed. 1898, pp. 38-49.

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Guzra Bai rings the bell thrice before her time, and the Raja does not attend at the time of her confinement, notwithstanding the ringing of the bell. Twelve co-wives substitute stones for the hundred boys and one girl, to whom Guzra Bai gives birth, and the children are thrown out on a dust-heap to be eaten by the beasts of the field and the fowls of the air, but are protected and cared for by some bandicoot rats which take them into their holes.

Coming to know of this, the wicked Ranis send men to dig up the bandicoots' holes and kill the children, but the good bandicoots remove the children to a well. This fact also happens to reach the ears of the wicked queens, and they send men to dig up the well and the children. But the children pray for help to the god Gan-pati, and he metamorphoses the hundred boys into a hundred little mango trees and the girl into a little rose tree. Coming to know of this, the wicked Ranis order the one hundred and one trees to be burnt down, but the god Gan-pati miraculously raises a storm which puts out the fire and floods the country, and causes the trees to be carried by the flood to a distant country. There they resume their human form and effect a landing in the midst of a forest, but an ogress there transforms the hundred boys into as many crows.

At this time a young Raja appears on the scene, takes the girl (Draupadi Bai) with her one hundred crow-brothers to his home and marries her. A boy, by name Rām-chandra, is born of this union. Rām-chandra, learning of his uncles' sad history, goes to the ogress, and carries off from her a couple of jars of magic water, a magic wand and a little of her hair. She pursues him. He conjures up, by means of the magic wand, obstacles to impede her progress, but she surmounts them all. Ultimately, the pursued prince scatters her hair to the wind, and it immediately produces a great conflagration in which she is burnt to death. On reaching home the prince sprinkles the magic water on his crow-uncles, and they at once resume their human shape.

Thereafter Draupadi Bai and her husband give a great feast, to which they invite both the banished Rani Guzra Bai and her duped husband, and bring about the *dénoûment* by disclosing to the latter the whole story of the crime of the twelve wicked Ranis. A happy reunion between Guzra Bai and her husband take place, and punishment is meted out to the wicked Ranis.

In the second variant, the version from Bengal,* the Raja gives his favorite Rani, who is, as in the Western Indian variant, a gardener's daughter, and who is about to become a mother, a kettle-dram for the same purpose. Her four wicked co-wives prevail upon her to beat it

> * Stokes' Indian Fairy Tales, No. 20, pp. 119-137. J: 111. 2

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twice before her time, and that mightily annoys the Raja; hence, when she is really taken ill, he does not go to her, notwithstanding the vigorous tapping of the kettle-drum. She gives birth to a boy with a moon on his forehead and a star on his ohin. With the help of a nurse, the four wicked Ranis substitute a stone for the boy, and he is placed inside a box and buried, but the mother could not see all this, as she had been induced by her co-wives to blindfold herself.

The Raja's dog Sankar digs up the box, and saves the boy's life by hiding him in his stomach for one year. Coming to know of this, the wicked Ranis resolve to kill the dog, and the dog thereupon makes over the prince to the Raja's cow Suri, who likewise hid the prince in her stomach for two years. The wicked Ranis determine to kill the cow, and she in her turn makes over the prince to the Raja's horse Katar, who hides him in his stomach for another two years. The wicked Ranis, coming to know of this, resolve to kill the horse, but he flees with the prince to another Raja's country. There the prince twists Katar's right ear, and in consequence the horse is changed into a donkey; and the prince himself is changed into a poor ugly youth by twisting his own right ear.

The foreign Raja's youngest daughter falls in love with the disguised prince and marries him. Thereupon the prince is transformed into a handsome young man by twisting his own left ear, and she recognises her husband, in his transformed state, with difficulty. The horse Katar tells the prince the whole story of the banishment of the favorite Rani and the wicked Ranis' machinations. The prince then visits his father's country and gives a great feast, to which he invites his father, the four wicked Ranis and his own mother—the banished Rani. The *dénoûment* is effected by the horse Katar, namely, the execution of the wicked Ranis, and the recall of the banished Rani and her son.

I may notice here that the most interesting features of the variant from Western India, known as "Truth's Triumph," are these: (1) the aiding animals; (2) the metamorphosis of human beings into trees and crows by witchcraft. The incident of the Helpful Beast is of frequent occurrence in folk-tales. Animals aid the hero or heroine out of gratitude for some kindness done to them. In the Kashmiri folk-tale of "The Charmed Bing," a cat, a snake and a dog help the hero. In the North Indian folk-tale entitled "Princess Labam," ants and a tiger aid the hero out of gratitude for saving the lives of the former and for extracting a thorn from the latter's foot. The same theme of the Grateful Animals occurs in the South Indian folk-tale of "The Soothsayer's Son." In the variant last described bandicoots are the animals which render assistance to the heroine and her brothers out of sheer pity for 1902.]

their forlorn condition, and in the Santali folk-tale of "The Girl who always found helpers,"* a snake, a tiger, a bear, a frog and some pigeons aid the heroine in performing the tasks set her by her cruel sisters-in-law.

The metamorphosis of human beings into animals is a common incident in Indian folklore, and the instances are too numerous to be cited here. The victims are sometimes changed by the witch or magician into inanimate objects like stones and trees, as will appear from the North Indian tale wherein the ogre Punchkint transforms the objects of his wrath into stones and trees, and from the Kashmiri variant of "The Wicked Queens" to be discussed next, in which the heroes are changed into stones because they looked back at the foot of the magic mountain. The most remarkable incident in the variant, "The Boy who had a moon on his forehead and a star on his chin," is the way in which the aiding animals preserve the deserted child's life by hiding him inside their stomachs. The incident of Living in Animals' bellies also occurs in other Indian folk-tales, as in the story in which the hero lives four days and four nights in a crocodile's belly; the heroine lives for twelve years in the belly of a monster fish called the Rohu (Labeo rohita), and a crow, a jackal and a snake go into the fish's belly to see what creature is in there. 1

The presence of a moon on the hero's forehead is also noteworthy, considering that the same characteristic of the hero is found in the Bengali variant, wherein the hero has stars on the palms of his hands instead of the chin. This trait points to the Hindu origin of the variants, because in Hindu mythology the god Siva is represented as having a moon on his forehead, and almost all Hindu tribes and castes have their distinctive caste-marks there.

The incident of the heroine's selecting the hero, disguised as a menial, for her husband is also frequently mentioned in Indian and European folk-tales, for details of which the curious reader is referred to Jacobs' List of Incidents (s. v. Menial Disguise) in *Transactions of the Folklore Congress*, 1892, pp. 87-98.

I must now return to the main subject of this essay. The absence of the bell-ringing incident is altogether remarkable in the two following variants from Kashmir.

In the second variant§ from Kashmir, the favorite Rani gives birth to two sons, and to twins, namely a boy and girl, in succession in the

- * Campbell's Santal Folk-tales, pp. 119-124.
- † Jacobs' Indian Fairy Tales, p. 31.
- 1 Stokes' Indian Fairy Tales, p. 66 ; pp. 75ff.
- § Knowles' Folk-tales of Kashmir, pp. 397-405.

course of several years. The two co-wives substitute a crow for each of the first two boys, and a couple of puppies for the twins; and putting the children into boxes, cast them into the river, expecting that they will be drowned. But the boxes are picked up by a gardener, and he adopts and brings up the children as his own offspring. Being sorely disappointed with his favorite Rani, the Raja banishes her.

The wicked Ranis, coming to know that the children are living, egg on the girl to send her brothers to fetch a beautiful bird that speaks and sings like a human being. The eldest brother goes in his search for the bird, and comes across a holy mendicant who gives him instructions for bringing the bird. But he acts contrary to the jogi's instructions and is turned into a pillar of stone. The second brother meets with a similar fate. The youngest brother succeeds in fetching the bird and some of the golden water which has the magical power of transforming men to their original shapes. The two brothers, who are pillars of stone, are sprinkled with the golden water and transformed back into their human shape. The three brothers return home with the bird and the golden water. The bird discloses the whole story of the wicked Ranis' crime to the Raja, and he thereupon exiles them and restores the banished queen to her former position and honor.

In the next variant^{*} from the same country, the favorite queen gives birth to a son, who is disposed of in the same way as in the preceding variant, a stone being substituted for him. He is picked up by a holy man and brought up by him. On hearing of this, the wicked Ranis persuade the boy's adoptive mother to send him to fetch the sandalwood tree with branches of gold and flowers of pearls. He goes in search of it, and on the way meets a woman who comes out of a spring and gives him instructions how to procure the tree. He follows her directions and, surmounting the difficulties that stand in his way, succeeds in bringing the tree home. He is again sent to fetch the covering for the tree, and brings it home, accompanied by the wise woman. The *dénoûment* is brought about by this woman, and is followed by the usual exiling of the wicked Ranis, and recall of the banished queen.

The most remarkable incident in the last mentioned variant is the bringing of the sandal-tree with branches of gold and flowers of pearls. Such an incident occurs also in the folk-tale from Western India, in which the heroine Seventee Bai finds beneath the waters of the lake a garden, in the centre of which grows one tree, more beautiful than all the rest, with stem of silver, leaves of gold, and clusters of fruits of pearls.

* Knowles' Folk-tales of Kashmir, pp. 408-414.

† Frere's Old Deccan Days, p. 27.



It would appear from the incidents in the North Indian folk-tales discussed above, that the story-radical fixed by the Folklore Society of London for tales of the *Rhea Sylvia* type does not fit in with these North Indian tales. I, therefore, propose to fix the following new story-radical for the folk-tales discussed above and to name it "The Wicked Step-mother's Type":—

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1. A king, having one or more wives but no son by them, marries another wife in the hope of having a son by her.

2. The wicked co-wife or co-wives, being jealous of the youngest queen, substitute some animate or inanimate object for the new-boru babe, and cast the babe away with the intention that it shall perish.

3. Some man in humble position, or a holy man, or even some animal, finds the new-born babe and brings it up.

4. The wicked step-mothers, discovering that the child is alive and grown up, set the young prince dangerous tasks to perform, in the hope that he will be killed in attempting them.

5. The prince succeeds in performing the tasks.

6. Then in some wonderful way the whole story of the stepmothers' wickedness is discovered and is revealed to the king, and the king learns that the prince is his son.

7. The king receives his son and repairs the injustice which he had committed; he banishes the wicked elder queens, restores the youngest queen to her former position, and lives happily with her and their newly-found son.

Juniper Tree Type.

The next type of folk-tales which I deal with in this paper is the *Juniper Tree type*. The story-radical fixed by the Folklore Society of London for folk-tales of this type is the following^{*}:—

1. A step-mother hates her step-child, and accomplishes its death.

2. Marvellous incidents follow, through the transmigration of the child's soul into 1st, a tree; and 2ndly, a bird.

3. Punishment of the step-mother.

The chief differences between the *Rhea Sylvia* and the *Juniper Tree* types is that in the former type the step-mother tries to bring about the death of the step-child but fails; whereas in the latter type, she accomplishes it.

The only folk-tale of the Juniper Tree type, which I have come across in my survey of the field of Indian Folklore literature, is the following one from Bengal, entitled "The Seven Champā Brothers," which is now published for, I believe, the first time :--

A Raja had two wives. The eldest queen not having had any

* Handbook of Folklore, p. 121.

S. C. Mitra-North Indian Folk-tales.

children, he married the younger Rani in the hope of having children by her, and is therefore much attached to her. In course of time, the younger queen becomes *enceinte*, and he is very happy at the thought of having an heir. When the time for her confinement has well-nigh arrived, she enquires of her elder co-wife how she shall behave during her travail. The elder wife, who is very jealous of her, tells her to blindfold herself with a cloth folded seven times, and hide her face in the empty fire-place, and assures her that, if she remains in this position, she will have a vory easy delivery. The younger Rani, who is unsophisticated and does not see through the other's sinister motives, consents to act up to her suggestions. In the meantime, the elder Rani arranges that, as soon as the child shall be born, it should be strangled and buried in the backyard of the kitchen, without the younger Rani's knowledge.

In time the younger Rani, being taken ill with the pange of childbirth, blindfolds herself in the way suggested and hides her face in the empty fire-place. She is delivered of a son without knowing of it. As soon as it is born, the elder Rani bas it strangled and buried in the backyard of the kitchen, and informs the younger that she has given birth to stocks and stones, and actually shows her some stones. She also informs the Raja of the strange birth. He is very much disappointed; and his affection for his favorite wife begins to wane. In course of several years, the younger Rani gives birth to seven sons in succession, and all of them are destroyed by the elder Rani, and buried in the backyard. Last of all, the younger queen is delivered of a babygirl, which too is disposed of in the same way by the wicked Rani. The Raja becomes so much displeased with the younger Rani that he relegates her to the position of a cow-keeper, in which capacity she has to tend the cows and do menial work in the cow-shed. Thus fallen from her high position, she murmurs at her sad lot, but performs her duties.

In the meantime, the seven sons who had been killed and buried have grown into seven champā trees (Michelia champaca), and the girl into a lovely creeper called pārul; and all of them bear a profusion of sweet-smelling flowers. Sometime afterwards, the śrādh ceremony of the Raja's father is to be performed, and flowers are required for it. A servant of the Raj household goes to pluck flowers from the champā trees and the pārul creeper, and the latter cries out:-

Sāt bhāi campā jāgo re.

"O seven champā brothers, wake up !"

The seven champā trees reply :---

Kyāno bon pārul dāko re.

"Why, sister pārul, are you calling us ?"



[No. 1,

Thereupon the pārul rejoins :---

Rājār būper śrāddha, phūl debe ki nā?

"It is the srāddha ceremony of the Raja's father; will you allow your flowers to be plucked or not?"

The seven champā brothers reply :---

Nā diba cāmpāri phūl Uthe jāba anek dūr Age āsuk goālkādunī mā Tabe diba phūl. "We won't allow our Champā flowers to be plucked. We will shoot very far upwards. Let our mother who is now a cow-keeper come, Then we will allow our flowers to be plucked."

So saying, the champā trees, refusing to allow their flowers to be plucked, grew up to the sky.

The servant, being unable to reach them, went to the Raja and informed him of what had taken place. The Raja, very much surprised, sent all his principal officers of state one after another to gather flowers from the trees and the creeper, but when they stretched their hands to gather the flowers, the trees and creeper shot up to the sky. refusing to yield their flowers. The officers returned and informed the Raja of what had happened. He then went in person to the trees and the creeper and was astonished at their strange conduct, the meaning of which nobody could interpret. At last he sent for the discarded younger Rani, from the cow stalls, and as soon as she came and went to pluck the flowers, the trees and the creeper bent towards her feet and twined their branches and tendrils about her face and arms, and allowed her to gather the flowers. On seeing this, the Raja asked the trees and the creeper about their strange conduct, and they thereupon regained their human forms and told him the whole story. The Raja was wroth with the wicked elder Rani and had her buried alive in a pit with thorns and brambles above and below her. He restored the younger Rani to her former position, and embracing the children took them to the palace. Thereafter he lived happily with her and their children.

The most remarkable incident in this tale of the "Juniper Tree" type is the growth of the seven dead boys' souls into seven *champā* trees, and of the girl's soul into a *pārul* creeper. This pretty conception that the souls of dead men may spring up into trees or blossom forth as flowers is very common in poetry and folklore. It is a survival, in refined form, of the cardinal doctrine of savage philosophy which attributes souls not only to man and animals, but also to trees.

According to the ideas of men in the most primitive state of culture,

trees have their in-dwelling spirits, since they exhibit the phenomena of life, though in a lesser degree than mau and beasts. They cast waving shadows and reflectious; their leaves make soft sighing sounds when gently agitated by breezes; and their juices have sometimes soporific and sometimes maddening effects. These evidences confirm the savage's belief that trees must also have souls. This belief assumed among the Greeks the form of the beautiful fable that the Dryads die together with the trees in which their lives begin, and in which they dwell. This idea survives to the present day in poetry and folklore in the shape that flowers grow or blossom from the souls of the dead. It was from the blood of dying Adonis, who had been wounded by the boar he was chasing, that the flower anemone sprang. Based on this belief is the pretty poetical concept of flowers springing up from the graves or ashes of buried lovers, of which an instance occurs in the ballad of "Fair Margaret and Sweet William."

In the story of Tristram and Ysonde, an eglantine springs up from the grave of Tristram and winds its arms about the image of the fair Ysonde. The great bard of Avon has immortalized this concept in the words of Laertes over Ophelia :---

" Lay her i' the earth,

And from her fair and unpolluted flesh

May violets spring;"

and Tennyson says :---

"And from his ashes may be made

The violet of his native land."

This idea also occurs frequently in folk-tales. In the Santali tale of "The Magic Fiddle," the Santal girl, who is, at the instigation of her seven jealous sisters-in-law, drowned by the water-spirit Bonga, is transformed into a bamboo growing on the bank of the tank in which she was drowned.* In "The Story of Two Princesses" from the same part of the country, the younger princess is eaten up by an old monkey who then went to the Raja's garden and died. The dead princess' soul, contained in the dead monkey, grew up into a gourd-plaut and bore fruit. The shell of the gourd was made by a *jugi* into a banjo, and out of that she came forth in human shape.† The same incident also occurs in the tale of the "Magic Fiddle," iu which the dead heroine comes forth from the fiddle made out of the bamboo, into which she had been transformed after death. In a third Santali folktale, that of "The Seven Brothers and their Sister," the heroine was offered as a sacrifice by her seven brothers to the water-spirit in the

* Campbell's Santal Folk-tales, p. 53.

† Loc. cit., pp. 108-105.

hope that the tank which they were excavating might be filled with water. The sacrificed heroine blossomed forth into an *upel* flower of wondrous beauty and color, and this again turned into the heroine.*

In a Western Indian folk-tale, the heroine Sūryā Bai, who is thrown into the tank by her jealous co-wife and drowned, becomes transformed into a bright golden sun-flower. The jealous co-wife burns the sunflower; and, from the ashes springs a mango tree with only one mango, which falls into a milk-woman's can and turns into the heroine.[†]

The next important incident in the above tale is the refusal of the *champā* trees and the *pārul* creeper to allow their flowers to be plucked, and their ultimate denunciation of the wicked elder Rani. This incident frequently occurs in a large group of folk-tales belonging to the "Singing Bone" type, in which a child is robbed by a brother or sister of an apple, or some coveted article, and is then murdered and buried or hidden away. A plant springs up on the spot where the child is buried; and afterwards, when an attempt is made to pluck a flower from the plant, the voice of the murdered child blazons forth the story of his murder, and denounces the criminal. Sometimes this incident assumes a slightly varied form in which it is a bone of the victim, or a reed growing on the grave, which, when blown through, reveals the crime.

The central theme of the North Indian folk-tales of both the "*Rhea* Sylvia" and "Juniper Tree" types is the revengeful jealousy of the elder wives towards the favourite younger wife. These classes of tales can have originated in polygamous countries only. The youngest wife, being endowed with the charms of youth, naturally attracts most of the attention of her lord and master, and excites the jealousy of the less fortunate wives, and they try their best to supplant her in their husband's affection.

The story-radical fixed by the Folklore Society of London for a story of the "Juniper Tree" type fits exactly into the unpublished folktale from Bengal narrated above.

Натнwа.

* Campbell's Santal Folk-tales, p. 108.

+ Frere's Old Deccan Days, pp. 65-66.

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Marriage Customs of the Khonds.—By J. E. FRIEND-PEREIRA, B.A. (Communicated by the Anthropological Secretary.)*

[Received March 1901; read 5th June 1901.]

The practice of early marriage is not prevalent among the Khonds. It is only some time after young people have attained puberty that a solemn betrothal takes place; and the ceremony of marriage proper is performed a year or two afterwards. Often a girl never marries at all; and yet her family do not incur any social opprobrium in consequence.

An essential condition of marriage is that the contracting parties be not of the same tribe or sept; and even when they are of different tribes or septs, consanguinity up to the seventh generation is strictly prohibited. As there are no professional bards or genealogists among them, they resort to an ingenious device to guard against marriages within the forbidden degrees. When a neighbouring tribe, from which they have been in the habit of procuring wives, begins to show signs of blood relationship in the course of time, a ban is placed on further marriages, and the two tribes, as is becoming among kinsmen, enter into a closer bond of friendship which is to last for fourteen generations. After that lapse of time a general council of the elders of the tribes is held, the interdict is removed, and intermarriage is once more resumed, to continue for another indefinite period.

Preliminaries.

When a boy attains puberty, the head of the family—it may be his Sūjinārā palla (the divining rice) or Döröm kūtā (the just divination). or döröm kūtā (divination) in order to determine whether the destinies of

the prospective groom and bride promise to coincide.

 $S\bar{u}jin\bar{a}r\bar{a}$ palla.—Two handfuls of rice are thrown, one in the name of the boy and the other in that of the girl, into a new earthen vessel filled with water, and it is set over a blazing fire. The contents are not

* With this description of Khond Marriage Customs compare the accounts in Dalton's Ethnology of Bengal, p. 299 (published in 1872), in Hunter's Statistical Account of Bengal, vol. XIX, p. 225 (published in 1877), and in Mr. Risley's Tribes and Castes of Bengal, vol. I, p. 400 (published in 1891). From these it will be seen that the customs and ceremonies described in the present article are not primitive, yet this account indicates the manner in which the Khonds have been Hinduizing their customs, [Ed.]

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stirred with a ladle. If the rice boils over and spills, there is an absence of compatibility in their destined lives; but if it does not bubble up, and if it cooks cleanly, their lives will course along harmoniously together.

 $D\bar{o}r\bar{o}m \ k\bar{u}t\bar{a}$.—Two little children, one in the name of the boy and the other in that of the girl, drop a grain of rice into an earthen vessel of freshly drawn water. If both the grains of rice float on the water, or if one floats and the other sinks, there is a clashing in their fates; if both sink quietly to the bottom of the vessel, their union will blend well.

If the divination results propitionsly, the boy's mother or aunt or Sori sura (seeing the bride) or Sori kängäri (watching the bride). stealthily in order to discover whether she is likely to make a suitable wife. This is called the sori sura (seeing the bride) or sori kängäri (watching the bride.)

If the result of the sēri sūra is satisfactory, the head of the family seri dāh'pa (search. commissions two or three of his kinsmen to proing for the bride.) ceed to the village and open negotiations—sēri dāh'pa (searching for the bride). The sēri dāh'pa gātāru (searchers for the bride) watch carefully for an omen (pāhēri ro'i āne, lit, whether the road is bad) while they are on their way to the village. Should they see a hare or a rat or a partridge or a snake or a frog or a lizard or a scorpion, the sign is inauspicious, and they turn back in haste. Should they meet a woman carrying a pitcher full of water, the omen is favourable; but should the pitcher be empty, it forbodes evil. Similarly, a bullock (but not a buffalo), a bear or tiger (but not a leopard) is a propitious prognostic; but a jackal, a deer, and a wild-dog are all portents of evil.

The omens being propitious, the commissioners proceed to the sitenja(the go-between) village and camp. outside in a suitable spot. or marriage broker). At night they approach the house of an acquaintance, or that of any other person who is likely to consent to become the sitenju (the go-between or marriage broker), and after a little prelimmary conversation confide to him the object of their visit. The sitenju may go at once and sound the parents of the girl's parents look with favour on the suit, the sitenju sends word to the seri dah'pagataru, and they proceed once more to the village carrying two kupi. (small earthen vessel) of site kalu (liquor for the go-between), and an axe or a bow and arrows.

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At the sitenju's house an oblation is performed with a portion of the site kalu for the success of the enterprise. Then fortifying themselves with a little of the wine, the seri dah'pa gataru go in company with the sitenju to the girl's house. They are not received with any marks of welcome, nor are they invited into the house; but are kept waiting in the raha (front courtyard) while her father holds a solemn conclave with his kinsmen and friends inside the house. He puts before them the proposal, and asks for their formal consent. The women are consulted, and often theirs is not the least important voice in the matter. Finally, when it has been decided satisfactorily that the boy's family is not tainted with biddo or kepa (witchcraft)-a most important consideration-that the boy's mother is not bad tempered or quarrelsome, that in fact there is no objection to the alliance from a worldly point of view, one of the most influential kinsmen says, "She is merchandise that has come into thy possession; thou canst not keep her all the days of thy life; sold she must therefore be; and as well to this one as to any one else."

The axe is now carried into the house as a sign that the suit is acceptable, and tobacco and fire are placed before the visitors. After an exchange of courtesies the seri dah'pa gataru broach the subject through the sitenju. The girl's people at first feign they do not comprehend the proposal, but afterwards the negotiations proceed in somwhat the following manner. The sitenju says, "We have come to demand the mulā sēri (betrothal) of your daughter with the son of sucha-one." The girl's father replies, indifferently, "The matter is not a trifling one; you must not be too sanguine of success; the girl is too young as yet for us to entertain any serious thoughts of her marriage." The sitenju rejoins, "True, she is young : that is why we want her; we do not want her at once; we have no money to pay down for her; we must collect the seri mala (bride-price); and that will take some time." The girl's people respond, "Let it be as you will; she was born to be sold; sold she must be, and as well to you as to anyone else; we shall deem it an honour to enter into an alliance with your family; we are confident we can entrust our daughter's future happiness to you; well, since you wish it so much, we will consider the matter as settled." The sēri dāh'pa gātāru express their deep sense of the honour that is being conferred on them. The girl's people continue, "You have made proper enquiries about us: we have also asked a few questions about you; should any idle stories reach your ears and induce you to break off the engagement, remember there is $pronj\bar{u}$ (damages in the shape of a buffalo for a feast) to be paid; should we give heed to any rumours, we on our part promise to pay the same to you."

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The remaining kupi of site kalu is now brought forward and placed in the middle of the assembly, and the leading Site gați kalu (liquor men on either side dip donka (little gourd cups) for the go-between who has settled the contract). into the jar and pour out libations* to the tutelary demons. The remainder of the liquor is drunk by the people, and the solemn compact, that neither side shall recede from its word, is once more ratified. The seri dah'pa gataru then press on the girl's father the acceptance of a part of the seri mālā in order that the contract may be published among the people. More liquor is provided by the girl's father, and after a convivial night the assembly breaks up in the small hours of the morning.

Before their departure in the morning a delli kāţāni gați (a knotted

Delli kātāni gati (knotted string showing the number of days after which they should return with a portion of the seri malā).

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string showing the number of days) is put into the hands of the *sēri dāk'pa gātāru*, while a similar *gați* is kept by the girl's people for their own guidance.

Betrothal.

The reckoning of the days is kept by undoing a knot in the string Mula seri (betrothal) every morning. On the day on which the last knot is untied, the seri dāh'pa gāţāru, accompanied

by a small party, go for the third time to the village of the bride-elect with two or three head of cattle as part payment of the sēri mālā, and a large pot of liquor. The liquor is known as mālā ita kālu (liquor for leaving the bride-price). The men are received with every demonstration of hospitality by the girl's father, and after an exchange of compliments and enquiries concerning the health of their respective families, all unite in offering libations of liquor to the tutelary demons in the rāhā or front courtyard. The liquor that remains over is drunk; and then more liquor in a large $j\bar{v}ba$ (earthen pot) is brought out by the girl's father. At night there is a feast of pig's or goat's flesh and rice, which is washed down with copious draughts of wine; and the young people of both sexes pass the time in dancing to the weird music of the hereditary low-caste Pān musicians of the tribe.

In the morning the guests are supplied with kānka rupa (eye-wash, Māli töbga (wearing of the engagement chain or bangle). is a feast to which all the kinsmen are invited. At the conclusion of the feast a large nānde or teke (earthen pot) of māli töbga kālu (liquor

* At the end is given a specimen (with a free translation in English) of the invocation used when wine is poured out in libation to the tutelary demons.

for the wearing of the engagement chain) is brought forth, and while the assembled people are quaffing it, the bashful and struggling bride is led up to the principal $s\bar{e}ri$ $d\bar{a}h'pa$ $g\bar{a}t\bar{a}n\bar{j}u$ (singular), who puts a string of beads round her neck or a bangle of brass or bell-metal on her wrist, and utters words suitable to the occasion. The mūla $s\bar{e}ri$ (formal betrothal) being now completed, the girl goes round and makes obeisance to each one in turn, while the elders pour out libations of wine to the tutelary demons. At night there is another feast; the wine flows unstintedly; and the young people indulge in dances.

For this feast there may be *tispa gāți*, that is to say, one of the Tispa gāți (present that buffaloes brought by the sēti dāh'pa gāțāru is *is fed*). killed, and the *tlādu vēhēka* (liver and entrails) are kept for the feast, while the carcase is sent back to the groom's father who gives another feast to his own knismen in his village. Should the marriage contract not be carried out for any reason, the boy's people cannot claim back the *tīspa gāți* that has gone to feast the people.

Interval between the betrothal and marriage.

During the next year or two the boy's people send, in an informal manner, from time to time, some cattle in part payment of the $s\bar{e}ri\ m\bar{a}l\bar{a}$, the amount of which, however, has not yet been determined.

The boy does not visit his fiancée—he has never yet been to her house; but there is no objection to his paying court to her openly. In fact, if he expects a successful termination to his suit he must contrive to meet her as often as he can at the numerous impromptu dances in the neighbouring villages and in the various $j\bar{a}tr\bar{a}s$ and $h\bar{a}ts$. He is generally too shy to converse with her directly; but he attaches himself to her party, jests with her younger sister or aunt, and bashfully offers her a present of a brass ring, or beads, or $li\bar{a}$ (sweetmeats.)

During this interval also, on a a pre-arranged day, a feast of buffalo's Mrāūn boji (daughter's or pig's flesh and rice is given by the girl's father feast.) to his kinsmen and male friends. This is called the mrāūn boji (daughter's feast). The same evening the party go to the groom's house, where a similar feast is spread out for their entertainment by the groom's father. The night is spent in dancing and merriment.

The next morning after $k\bar{a}ka \ rupa$ the party proceed to the $g\bar{c}l\bar{a}$ (place where the village cattle are collected before they are taken out to graze for the day), and a selection is made of the cattle that are considered acceptable for the $s\bar{c}ri \ m\bar{a}l\bar{a}$. This being satisfactorily accomplished, there is the usual libration to the tutelary demons. After their morning ablutions the men return to the house. Two large $j\bar{o}ba$ of



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liquor are placed by the groom's father in the $g\bar{u}di$ (third or sittingroom of the house), and another libation is poured out to the manes of the ancestors. Thereafter a young cock, a little rice, and some liquor are taken to the outskirts of the village, and a sacrifice is offered to the tutelary demons of the village, such as the village-god $(n\bar{a}ju \ p\bar{e}nu)$, the god of the dust heap $(t\bar{u}rki \ p\bar{e}nu)$, the god of the dung-hill $(g\bar{o}beri$ $p\bar{e}nu)$. The day is given up to feasting and music and merriment. Enormous quantities of liquor are consumed, and the young men go round from door to door to beg for rice or other grain, which they take to the liquor shop and barter for more liquor. The women play practical jokes on the intoxicated visitors by drenching them with $k\bar{a}do$ (muddy water) and pelting them with mud and filth.

The next morning, after a parting cup and a courteous leavetaking, the men depart with the cattle they have Sēri mālā tūh'pa (the selected. On the pretext that the buffaloes are leaving of the brideprice). wild and unmanageable, the groom is persuaded to lend a hand, and thus, stage by stage, is prevailed on to accompany the party to their village. On reaching the village (this is his first visit to the village since his betrothal) he has to undergo the disagreeable ordeal of saluting every one, men, women, children, and even the lowcaste Pan serfs. But two of his intimate friends, who have followed him, help him with their support during the trying performance. This visit to the bride's house is known as the seri mala tuh'pa (the leaving of the bride-price). The groom remains for some days feasting and enjoying the hospitality of his future wife's relations. And every night there are the usual music and dancing, and the drinking of much wine. Before his return home the groom receives a present of a silver bangle and a piece of cloth from his father-in-law elect; and similar marks of favour are bestowed on his two companions.

Marriage.

A year or two after the betrothal a commission is sent to the girl's Tapa seri (marriage). parents in order to fix a day for the $t\bar{a}pa$ seri (marriage).

The marriage must not take place during the waxing or waning lunation of the month in which the groom or bride was born, nor during the period the girl is rendered unclean by the occurrence of what is peculiar to her sex. The month in which the ceremony will take place is first decided on, and after further mutual arrangements the day is fixed. The commissioners are entertained hospitably, and are dismissed next morning with a *delli kātāni gāti*.

Every morning a knot on the string is untied, and on the last day

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a great feast is given by the youth's father to his own people. The same evening they all proceed to the bride's house, where they find the people assembled and drinking. After a mutual exchange of compliments, the groom's people join them. Some of the girl's people then bring a sihūri (basket) containing pieces of charcoal (āngēra), clods of earth (dekkali), and bits of stone (vali); the stones represent the number of pigs that are demanded for the seri mala, the clods the number of bullocks, and the charcoal the buffaloes. The basket is carried and placed with much ceremony in the midst of the groom's people, and after a little consultation they take out a certain number of the symbols to show what amount they are disposed to give, and return the basket. A few additions are made by the elders and the basket is taken back. Thus it passes backwards and forwards until the representatives on both sides come to an agreement. All the bullocks, buffaloes, pigs, and also brass utensils, that have been sent from time to time, including the tispa gāți, are added up. If anything is found to be due, the groom's people jest and say the cattle they were bringing with them fell into a hole and were maimed or killed.

The groom is then led up to the bride's father or other principal relative, who takes his hand and kisses him on the cheek. Then, while the people pour out libations of liquor, he approaches each one and makes obeisance. This ceremony being ended, all sit down to a sumptuous feast provided by the bride's father. Wine flows freely, and the night is passed in music and dancing. The bride remains inside the honse surrounded by her mother and aunts, who weep loudly at the coming separation. In the morning the people disperse, leaving the groom and one or two of his intimate friends as guests in his father-in-law's honse, where he remains for a day or two.

When the morning comes for the newly wedded couple to depart to their home, the bride's girl-friends take her to a stream and help her to perform her toilet. They bathe her, wash her hair, rub an unguent of turmeric and oil on her body, and clothe her in the new garment given her by her father. Meanwhile she weeps copiously, often genuine tears. The same office is performed for the groom by his intimate friends. After a hasty breakfast, during which there is much weeping and wailing among the women, the bridal pair are led out to the front courtyard. The bride wears the ornaments that her father has given her as a portion of her dowry. The youth dons the national $g\bar{a}ji$ (loin cloth) and throws a red blanket across his shoulder; in his right band he grasps a $t\bar{a}ngi$ (battle-axe), in his left he holds a bow with three or five arrows, all of which are gifts from his fatherin-law. The girl is made to stand on a jomba (block of wood used as

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a stool) facing her father's house, and her husband takes his place by her side, but a little behind her, on a $j\bar{u}\bar{e}li$ (plough).* The women bring paddy in a küla (winnowing-fan) and scatter it on the young couple's feet. The girl's mother then comes forward with a sokeni (leaf-cup) of turmeric and rice, and pours it out on the young people's heads. All now press forward and salute or kiss the newly wedded pair. An old woman suddenly rushes forward, seizes the bride, flings her on her back, and carries her off. A man comes to the front similarly, catches the groom, and places him astride on his shoulder. The human horses neigh and prance about like the live quadruped, and finally rush away to the outskirts of the village. This is a signal for the bride's girlfriends to chase the couple and pelt them with clods of earth, stones, mud, cow-dung, and rice. When the mock assault + is at an end, the older people come up, and all accompany the bridal pair to the groom's village. Servants or relations carry the presents made to the happy couple by the bride's parents in large baskets.

For people in good circumstances the following may be the bride's dowry: one or two gold guna (nose-rings), a number of kiseni (silver rings worn along the auricle of the ear), a pair of suna (gold earrings for the lobes of the ear), some pātānga or kūslānga or mātinga (brass or bell-metal bangles for the arm), some silver $q\bar{u}bia$ (hair-pins, or ornaments for the hair), some silver gāgla (necklace), some vīsāniga, (brass or bell metal toe-rings that jingle in walking) and jūtānga (rings for the first toe), a pair of *qādoli* (anklets of brass or bell-metal) and *jūtinga* (armlets of the same), māli (beads for the neck, which are sometimes of gold), a dipēni (loin-cloth), a kāpța (cloth with red or coloured bands at either end), two luga (cloth of check design), some guranga (brass water-pots), some mādringa (brass cups) and kāsinga (small brass cups). The following may be presents to the groom : a pair of suna (gold earrings), a mali (string of gold beads), a pair of karu. (silver bangles for the wrist), a gun, a sword, a bow and quiverful of arrows, a drum, a tānigi (battle-axe), a gāji (narrow loin cloth some 30 cubits long), a red blanket, and an era punga (head-dress of egret's feathers).

On arriving at the village the groom's mother or aunt or sister comes and washes his feet, and then his bride's. And, as at the girl's house, the couple are made to stand on a $j\bar{o}mba$ and $j\bar{u}\bar{e}li$, and paddy is scattered on their feet, and turmeric and rice poured on their heads. A piece of cloth is spread across the doorway, and another stretched

* This ceremony is symbolical of the respective occupations of a husband and wife: the husband is to till the fields, and the wife to sit at home and cook the food.

† A relic of the times when marriage by capture prevailed.

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overhead, and the groom leads his bride into the house. A feast of great splendour is prepared; the flesh of fattened buffaloes, pigs, and sheep is spread out, and large jars of liquor are handed round. All the tribesmen are cordially invited, and the Pān serfs are not forgotten. Dancing and music follow at night, and much merriment. The next Sēri kālu (bridal afternoon there is another feast when the striliquor). kālu (bridal liquor) is drunk as a bumper, and the guests depart, each with a little parcel of rice or other delicacy.

For seven days the bride remains as a guest in her father-in-law's house, her husband continuing to sleep in the $d\bar{a}ngri iddu$ (youths' dormitory). On the eighth day the couple take a pig, a cock, some paddy, and a jar of liquor, and proceed to her parents' house. They take up their quarters in the dinda iddu (detached out-house) where she cooks a meal for themselves. At noon the *pidari guru* (the priest who sacrifices to the manes of the ancestors) husks the paddy in the $g\bar{u}di$, and feeds the pig and cock with a portion of the rice. A portion of the rice is placed in three little heaps on the ground. The pig and cock are sacrificed, and then blood is sprinkled on the grain, with libations of liquor, in the name of pidra pita (the manes of the ancestors). The remainder of the rice is cooked by the bride and shared among all the kinsmen and friends.

The young couple stay on for a day or two as guests of her parents; or, it may be, the youth returns home and leaves his wife with her people for a few days. On her return she resides with his parents. After four or five days the groom gives a little farewell supper to the youths in the dangri i ddu, which he is about to quit for good. The same evening his father drinks himself to intoxication, and in that state lies in the dinda i ddu; and at midnight his mother slips away from the side of the sleeping girl. At a given signal the groom is brought silently and cautiously by his bachelor friends; they push him into the room where his bride lies in slumber, and close and bolt the door behind him.

Invocation used with a libration of wine.

O İspor Pārbati ņe-enjū siţeņi āhā siţe gaţi kālū tāsānāi samdi sāhāņi ţakī vājāmānāmū. O İswar Pārbatī, to-day having caught the sītēnīju, and having brought the sītē gati kālu, we have come to the samdi sāhāņi (i.e., the girl's father and mother who become related to the boy's father and mother by marriage).*

* Samdi is a corruption of the Bengali sambandhi, "a relative, connexion," which is vulgarly pronounced samdhi or sumdi. Ölē hölē küņāgaņdā vāvā side.

Mātā pitā peņka manga, māți mā, grām-sēni, tūrki pēņu, göberi peņka-gaņdērū, sāndī jorī gidu.

Krāņdī olī sid'a'kāri.*

Sāpū gūtā sid'a'kāri. Pāpo dangi sid'a'kāri. Pūtūņi jāñjāni sid'a'kāri.

Mōmēri duko sid'a'kāri. Gați mūdā gipki mānāmū, pāns lōko koksā nāi.

Siki ina'kāri, põkū ina'kāri.

Ņe-eñjū tekkā māi pidāri pitā āte.

Inēți țikka ēnēți țikka lāiți kūiți ājānekā sa'a'dū, va'a'dū.

Mai tlāu gāņdi ātē.

Gați mūdā gitāmū. Samdi sāhāņi gitāmū. Pūrba bidi api bainke samdēni, āmānke sāsū gitāmū.

Sorbo sāhāņi giā itāmū.

Māņākāi Ispor Pārbatiņdi.

Ne-eñjū tikkā samdi gitāmū.

We have not come on this visit for health or for wealth.

O ye ancestor gods and goddesses, (i.e., the manes of the ancestors), earth-goddess, village-god, god of the refuse-heap, gods of the dung-hill, be ye propitious !

Keep away (*lit.*, let there not be) tigers and bears !

Keep away thorns and splinters! Keep away sin and hatred !

Keep us from tripping against stones and boulders !

Keep away the fever affliction !

We five men sitting together are propitiating all of you.

Protect us from worms, protect us from vermin!

From to-day she has become our $p\bar{i}d\bar{a}r\bar{i}$ pitā (i.e., she has become related by marriage to the manes of our ancestors).

(O ye manes of ancestors), from our side and from her side, wherever ye be, below or above, do not be disagreeable and absent yourselves.

She has become ours, head and body.

We have made propitiation.

We have made samdi sāhāņi.

According to ancient usage we have made our api and bai (sisters) her samdi, our father's sister her sāsu (mother-in-law).

All of them having been made sāhāņi, keep ye them so.

Let all of us remain well, O Iśwar Pārbatš !

From today we have made samdi.

* The sign ' shortens the vowel which it follows by a sharp stoppage of the breath during its enunciation, as ma's, " I am."

If they should recede from their promise (lit., deny), they shall give $pro\tilde{n}j\bar{u}$ (damages in the shape of a buffalo for a feast). Āmū kūtē kā āmū pronjū si-If we should recede from our nāmū. promise, we will give proñjū. Kālū siki jānāmū; undu, tinju. We are pouring out liquor ; eat, drink ! Porū sīlā sid'a'kāri. Keep away quarrels and fights ! Momeri duko sid'a'kāri. Keep away the fever affliction ! Māți mā, grām-sēni, tūrki pēnū, O earth-goddess, O village-god, goberi peńka-gandērū, mātā pitā O god of the dust-heap, O gods of penka mängä, Ispor Pärbatindi. the dung-hill, O ancestor gods and goddesses, O Iśwar Pārbati !

[Note.-Two illustrations are added of Khond men and Khond girls in dancing attire.]

Ivārū kūtē-kā pronjū sinērū.

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PLATE I.

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PLATE II.



KHOND GIRLS.

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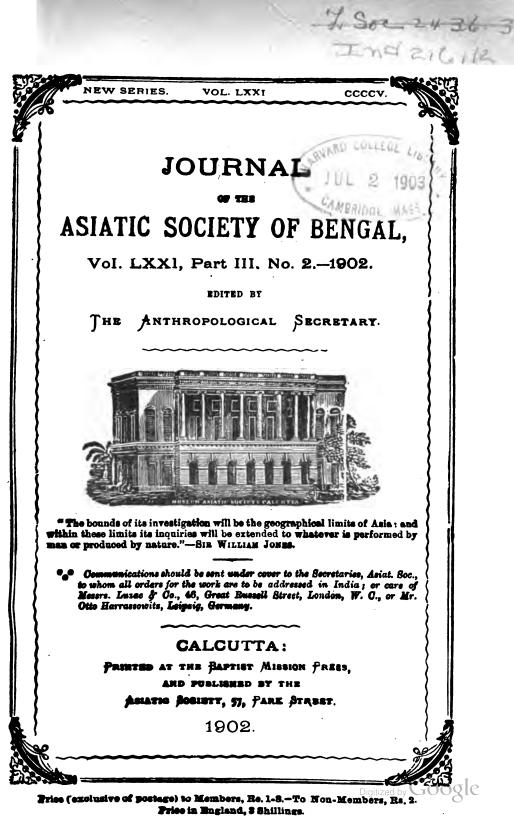
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No. 2.-1902.

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JOURNAL

OF THE

ASIATIC SOCIETY OF BENGAL.

Vol. LXXI. Part III.—ANTHROPOLOGY AND COGNATE SUBJECTS.

No. 2.–1902.

Some rough Anthropological Notes on Calcutta Juvenile Criminals.—By MAJOR W. J. BUCHANAN, I.M.S., Inspector-General of Jails, Bengal.

Dane, Dengun.

[Read 7th May, 1902.]

It is an important fact that in every civilised country at the beginning of the present century the proportion of habitual criminals in the population is steadily on the increase.

It is also generally agreed by all who have studied the subject that the habitual offender is the man who takes to crime as to a trade, and he begins young. Therefore if society is ever to get rid of the habitual criminal it must be by removing or ameliorating the conditions which produce the juvenile offender.

The following notes on youthful Calcutta criminals as seen in the Alipore Central Jail are rough and imperfect, but may be taken as a contribution to a subject so far but little studied in India.

The facts to follow are the results of an examination of some 120 boy criminals in Alipore Jail. A mere glance at some of them is sufficient to see the "degeneration" which is plainly written on their faces.

The juvenile criminals whom these notes refer to are "habituals," not boys who have been sent to prison for some single offence, but

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30 W. J. Buchanan-Notes on Calcutta Juvenile Criminals. No. 2,

youths from 16 to 22 with four, five or six convictions against them. Many of them owing to the lenient sentences passed by the Presidency Magistrates come two or three times to Jail in one year, some have commenced their career of crime very early and have spent five years in the Reformatory, and of all boys the Reformatory *failure* is the worst, there is no vice which he does not know, but fortunately failures from the Reformatory are the exception rather than the rule.

The criminal can be studied from two points of view, (1) as regards his environment, and (2) his anatomical peculiarities.

As regards environment it is unfortunately by no means easy to get at anything like an accurate history of persons of this class in India. Inquiry, especially by a Government officer, arouses suspicion, and questions as to existence and habits of a father or mother are apt to be met by silence or falsehood, as they cannot believe that the information will not be used against the family. Of course when one knows them well they are more communicative, and one fact which struck me forcibly in my inquiries was that many of these youthful criminals had lost one or other parent. In other cases the parents were alive, but the boy had been turned out of the house for theft. I could very seldom elicit any history of the father's having been in Jail. Nearly all the boys confessed to having been led astray by older boys, and there can be no doubt that life in the slums of Calcutta is far from conducive to strict living. Living in the street all day and half the night a boy is brought up from his earliest youth to sights and scenes which soon spoil him. In many parts of Calcutta there exist regular gangs of youths, with sardārs at their head, they have secret signals and passwords, and from what I learn they specialise their thievery to a high degree. One gang goes in for clothes stealing, another for watches, another for umbrellas, and one gang will seldom or never invade the prescribed territory of the other.

I do not find that pauperism is a motive for crime among these youths. We know of course the observation of Becky Sharpe that "it is easy to be honest on £5,000 a year," but these Calcutta youthful criminals are certainly not driven to crime by poverty. Many, and by far the majority have been in the enjoyment of regular pay as messengers, assistants to gariwalas, or, as is often the case, employed in various Printing Presses, and have often obtained the rudiments of education.

In Europe drink plays a large part in the etiology of crime, but this is not the case in Calcutta, or to a small extent only. No doubt these youths have early learnt the use of other intoxicants and narcotics, such as opium, Indian hemp, and cocain, but opium does not incite to crime, and gānja is not, in my experience, a stimulant indulged in by these youths, though common among older criminals. The peculiar vice of the Calcutta youths is indulgence in cocain, an up-to-date form of vice which I have elsewhere written on (Indian Medical Gazette, October 1901). This permicious habit is unfortunately not confined to youths of the criminal class, but is far too common among boys of good family, students at school and at the Calcutta University. It is certainly very common among the Calcutta criminal population and it certainly leads to crime. Many boys have told me that once the habit is commenced they must continue it, and as it is an expensive habit, they find they can easily steal enough to purchase this stimulant. Cocain as sold till recently by the pānwāllas in every street cost one anna a grain and as habitués take six, eight or ten grains and more a day it must become a very expensive indulgence for them. I believe it is only in this way it is an excitant to crime, its immediate effect on the constitution being a sense of lightness, pleasure and general well-being, followed soon by a corresponding depression which is met by taking another dose. The recent action of the Bengal Government in making it penal to sell cocain except at a druggist's shop is good, but druggist's shops of sorts are found in every street and bye-way in Calcutta.

But environment, though of the greatest importance in making or marring a human life, is not everything, and I was much struck when I took over charge of the Alipore Jail, a year ago, to find how these boys differed from the youths I had seen in Jails in Bihar where the prisoners are chiefly of the cultivator class, or villagers.

The Calcutta boy criminal is different and one at once notices the physical and anatomical peculiarities which have been described as characteristic of the European habitual or born criminal.

At this stage it may be well to state that I do not for a moment think that we can measure crime in millimetres or decide that a man is a criminal because he has some well marked anatomical peculiarities. None of those who have studied the subject have made this extravagant claim. This is only a sample of cheap criticism made by those who have not understood it. The utmost claim made is that the peculiarities, measured and recorded, are found in far greater number in the individual criminal, and among oriminals as a class than among normal individuals.

Few of us are absolutely normal, indeed the normal man, "born to consume the fruits of the earth" is a very poor person after all, but the number of anatomical peculiarities seen in the criminal, the lunatic or the idiot is far in excess of that of the normal man, and nearly all that has been described in the European or American criminal can be found in the convicts of our Indian Jails. Take a couple of cases like the following :---

- (1) Shaikh Dukhu, aged 18, third conviction for theft, a resident of Calcutta, father dead, has worked in a printing press, can read and write in vernacular. Height 4 ft. 10 in., weight 97lbs. Head markedly "sugarloafed" marked gynaecomastia, thick bulbous nose, marked temporal hollows; ears irregular and prominently outstanding, thick lower lip, prominent orbital ridges, left mastoid process more prominent than right, left shoulder higher than right, left handed. Face much wrinkled. Flat-footed, second and third toes longer than great toe, great gap between first and second toe.
- (2) or another, Shaikh Kalna, aged 22, with six convictions, hairy body, broad bulbous nose, much wrinkled forehead, prominent cheeks, irregular bumpy occiput, marked hollows over the mastoid bones, ears outstanding, with Darwinian tubercles on both, forehead low, hair coming down to within an inch of eyebrows, small receding chin, bulbous second and third toes.

We may now consider these anatomical peculiarities in turn.

Head.—I have not ventured to give any figures as to their cranial indices. Till we know more of the racial importance in India of the cranial index it is useless to apply it to criminals.

Probably the most common type of head among Calcutta Juvenile criminals is the oxycephalic or "sugarloafed" head. This is the type of head depicted as Satanic by old sculptors and painters. It is certainly abnormal, but may indicate genius, for Shakespeare's head was of this shape.

Another common type of head among these boys is one with a high vextex sloping downwards and forwards to the chin, giving the owner a "Jackal" like appearance—indeed one of the boys in Alipore Jail with such a head is called "gidar" by his companions.

A want of symmetry of the skull is very common. Few person's heads are absolutely symmetrical, but the heads of these boys show very often marked asymmetry. Ottolenghi, who studied this point in Italy states that over three abnormalities should put a head in the degenerative class. The most common abnormalities I have found to be—irregular protuberances at the occiput, and in the mastoid region, the parietal hollows, so much so that the one side of the head is plainly different from the other.

Facial anomalies are also very common, a receding small pointed chin is very common, also the heavy square lower jaw of the violent

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criminal. Prominence of jaw or progenism is less often seen. It is inherited in the Hapsburgs of Austria, and according to Sir William Turner it is found in the higher apes, and among Australian aborigines.

Teeth.—I have found few peculiarities among the teeth of these Calcutta boys. The teeth are usually good, but often stained by use of *pān* and cocain. Abnormalities of the palate are rare, and I think Surgeons in India are agreed that they are rare in Indians generally.

The ear in peoples of all countries is subject to much variety. Large outstanding ears are more common than any other anatomical character among criminals of all nations. Not less than 40 per cent. of Calcutta juvenile convicts have abnormal ears. Every peculiarity which has been noted of the human ear can be seen among these youths.

The nose is a feature which has been less studied by criminologists but I have very frequently noted a short broad bulbous nose, with prominent patent nostrils in these youths, and I think this shape of nose is characteristic of them.

Wrinkles are another feature, very soon noticed among these youths. It is not uncommon to find boys of 16 or 18 with faces as wrinkled as is normal to men of 60. This is most marked on the forehead and temples, and I find it often associated with (and doubtless caused by) a persistent habit of contracting and moving the facial muscles. Scanty growth of *hair* of head and beard I have often noted, but one knows so little of the growth of hair of ordinary natives of India that it is not possible to come to any conclusion on this subject.

As regards height and weight—I have made many observations, but I can find no observations among normal individuals to compare them with. Some years ago I collected the heights and weights of some 28,000 Bihari adult prisoners. Their mean height was only 5 ft. 3 in., and the mean weight of this large number only 110lbs., and I found a practical rule to be as follows—Taking 5 ft. to have a weight of 100lbs, I found that for every inch above 5 ft. about 3lbs. should be added—for example a man of 5 ft. 4 ins. should weigh about 112lbs. This will be found on the whole fairly accurately to apply to the class of man we get in Bengal Jails.

The means given, 5 ft. 3 in. height and 110lbs. in weight are small compared with European averages, but I think it will fairly represent the mean height and weight of men of the Bengal peasant class. At Elmira Reformatory, New York, the average height of 529 men was only 5 ft. 5¹/₂ ins., and average weight only J33lbs.—figures far below those of the average American adult.

Gynaecomastia is pretty common among Calcutta youths-I show

photographs of some typical cases. These not infrequently come to the Surgeons at the Medical College to have their breasts removed, as their companions tease them about their feminine peculiarity.

Heart Disease is relatively common among criminals, and Major Jackson, I.M.S., of the Yerroada Jail, near Poona, has written on this subject. I have also found, in a series of cases examined *post-mortem*, that the heart on the average weighed two ounces more than the normal.

Among other peculiarities of these Calcutta youths are "Knocknees," but the most common peculiarity of their feet is the large space between the first and second toes. Flat-foot is also very common, and another peculiarity which I have not seen elsewhere described is the length of the second toe which is very frequently $\frac{1}{4}$ to $\frac{1}{3}$ an inch longer than the great toe. Ottolenghi and Carrora have examined the space between the first and second toes in Italian criminals and find that a space or gap of over 3 mm is three times more common than in normal men. Idiots also show this anomaly.

The prehensile toe of the barefooted Native of India is well known. It appears to be uncommon among Europeans, and Ottolenghi takes some pride in describing two cases he has met with.

Left-handedness is common among these Calcutta youth. This can often only be tested in throwing a stone. I do not know to what extent it is common among the normal population of India.

Epilepsy is not uncommon among criminals, two per cent. of them I have estimated to be subject to epeleptic fits, often of a mild degree only (*petit mal*). Eye defects, squint, etc., are not very common, but a one-eyed or squinting man is proverbially not trusted in India.

There can be little doubt of the physical insensibility of the Calcutta oriminal. Tatuing is not very common among them. They are loud in complaint of trivial ailments, generally hoping thus to get off task-labour, but on the other hand they shrink at no amount of self-torture if thereby they gain an easy time in hospital. They will eat anything raw or irritant to produce diarrhœa or dysentery—they will introduce a needle and thread soaked in lime to produce lameness or a swollen hand, they are adepts at producing haemoptysis, nose-bleeding or bleeding as if from piles. They will inflict the severest injuries on themselves to throw the blame on others.

Their eyesight is generally good, colour blindness is very rare, and ear disease is very common.

This paper is already long, otherwise, much could be said as to many other points in the criminal's character. He of course is incorrigibly lazy, he would not be in Jail if he was not so; the intelligence of the habitual criminal is sometimes great, very often the

1902.] W. J. Buchanan-Notes on Calcutta Juvenile Oriminals.

mauvais sujet is le bon detenu, and some of the worst men morally are first class workmen. Their vanity is notorious, and many breaches of Jail discipline are committed from a feeling of bravado or desire to be distinguished from the rank and file. Like that distinguished degenerate Oscar Wilde they would rather be pelted than not noticed. A peculiarity also is their periodical outbursts. A man may be working well for months and then suddenly do some stupid act which he knows he must be punished for, and on talking to him he will often say he could not help himself, and such a case, when genuine, is best not punished.

We need say nothing here as to his addiction to vices and immoralities. The boy habitual has no vices to learn, he is adept at them all, and strict watch has to be kept over him to prevent the worst forms of immorality. But the habitual is not without a sentimental side to his nature; he is easy moved to tears, he is very fond of pet animals (birds or squirrels), and he is a first-rate attendant on the sick. This I find to be the most satisfactory trait in his otherwise gloomy character.

I say nothing here as to the proper management of this class of unhappy youth; big manufacturing Jails are not the best place for him, but a consideration of his proper treatment would lead me too far afield to-night, and in India there are difficulties greater even than in Europe as to the proper management of this unfortunate class.

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The Sacred Caves of Cachar.—By FRANK EDB, ESQ.

(Communicated by the Anthropological Secretary.)

[Read 1st May, 1901.]

[The Anthor has sent to the Society an account of a visit paid by him to the temples and caves on the hill bordering Cachar on the east and known as the Bhoban Pahār; the following extracts from it are of interest:]

The ascent of the hill itself takes about two hours, it being not more than 8,000 feet high. There is a fair path the whole way up; it is in bad repair in places, and is very steep. We broke our journey at a convenient stream about half-way up the hill, and pitched our camp immediately on the crest, where the path bifurcates to the caves and temples.

We first visited the sacred temple and groves to the south. There is a fair path winding along the water-shed, and the distance is about two miles and a half. We were much surprised to find Hindu and Mohammedan priests with their temples and pirs in such propinquity, viz., within a hundred yards of one another, and drawing water from the same well. This well is of fair size, situated in a hollow just below the lower temple. It is of modern construction and is said to have been built by a person called Rām, a wealthy contractor to local Boards and Municipalities. It is lined with undressed stones.

The temples and images are prettily situated among clusters of screw-pines, philodendrons, and ferns. There are four images in all; two are apparently very old, the other two are more modern. Of the two older images one represents Ganeça, and the other Hanumān. The other two are much larger and cruder; one of them represents Pārvatī. A year or so ago a mad man in Silchar had a delusion that the gods were displeased with him; he visited the hill and gave Ganeça a very bad time of it, for Ganeça's image is at present in three pieces; and both Ganeça and Hanumān have had their features considerably damaged, but some people say the latter injury was done by some Nāgas.

The Mohammedan Pir is on higher ground than the Hindu temple, and is immediately on the top of the watershed, at a point where the drop is sheer to the west, and from where on a clear day a magnificent view over a considerable portion of Cachar is obtained. This particular spot on the hill is visible from many miles distant, because of the white sheen of the scarp in the sun.

We returned to camp about dusk, and the next morning started with rope-ladders, &c., for the sacred caves. They are situated about three miles to the north-east of the point where the path up from the plains reaches the crest, and are in a spur of the main hill at a much lower level than the temples. There are two of them, apparently in no way connected, and of the type known as pot or swallow holes.

We visited the smaller cave first. It is approached by a rough rocky path terminating in a hollow or punch bowl, which has been formed by the collapse of the roof rock in the form of a circle, by reason of the removal or shifting of the underlying strata to a lower level by the action of water or some other agency. The cave or pipe descends from the bowl very rapidly for some distance, then rises and forms a saddle, again descends very rapidly and finally empties itself into the Barak or one of its tributaries. We were unable to find its outlet, as it becomes far too narrow to allow a man to pass. In the rains the cave must be more or less full of water, which can only get away very slowly (through cracks and fissures forming minor pot holes) until it rises above the level of the saddle, when it has a much freer outlet and flows away fairly rapidly. We were not able to find any stone implements, or bones, fossil or recent, in this cave. In some places the rocks were rounded and coated with pearl sinter. With the exception of a few bats, it is doubtful if this cave was ever inhabited by man or beast.

The second cave is much larger and has many ramifications, most of which we were unable to explore for want of time. It is approached by a narrow path, that passes between two huge black laterite rocks which are almost touching, and then suddenly emerges into a huge basin or punch bowl, picturesque in the extreme, thickly overgrown with rich tropical vegetation.

From the punch bowl there is a vast rapidly descending funuelshaped chamber which is connected with the cave proper, and the cave consists of a series of chambers connected by long narrow fissures or passages, apparently formed by running water along the lines of rock-jointing. These passages, and the floor of the cave generally, have a very rapid fall, and the rush of water in them must at times be very considerable. It is a very pretty sight to see the pilgrims climbing slowly down the funnel, and gradually appearing smaller and smaller, until, as they disappear into the cave itself, they look no bigger than sparrows; and their chanting, as it reverberates in the hollows and gradually wells up from below, has a peculiarly pleasing effect.

I would add that the caves are far more popular and held in more reverence than the idols, and although they cannot be entered without dauger to life and limb, many thousands of men and women visit them annually. In spite of this, their sanitary condition is perfect compared with the immediate surroundings of the temples and the well, which are insanitary in the extreme.

J. III. 6

Some Notes concerning the People of Mungeli Tahsil, Bilaspur District.— By Rev. E. M. GORDON.

(Communicated by the Anthropological Secretary).

[Read 6th August, 1902.]

A. NOTES ON CASTES.

1.—Chamār.

The Chamārs of this Tahsīl are divided into four distinct sections:-----

1.	Satnāmi.	3.	Kanaujiyā.
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2. Chungiyā.

4. Ahirwar.

The Satnāmis take the first place in consideration because of their numerical importance and also because of their

Satuāmi. interesting peculiarities. In the Journal of the

Asiatic Society of Bengal, Volume LIX, Part I, Nos. 3 and 4, 1890, will be found a brief historical sketch regarding this people. The assassination of one of the Satnāmī gurās at Aurābandā near Mungēlī has been merely mentioned in the above sketch. The Satnāmīs invariably accused the Rājputs of having murdered their gurū. This gurū had exasperated the Hindūs by wearing the janevā. He died at a village named Nāri on his way to Raipur where he was being taken by the Police Dārogā from Mungēlī. The following is the list of Satnāmī Gurūs in order of succession:—1. Ghāsi-dās, 2. Bālak-dās, 3. Ágar-dās, 4. Sāhib-dās, 5. Ajab-dās.

The practices and views noted below are peculiar to the Satnāmis :---

The Tabu.--Ghāsi-dās enjoined his followers to abstain from the use of intoxicating drinks, from flesh of every kind, and from the use of tobacco. The Satnāmis taboo masur-ki-dāl (Ervum Lens) and lāl-bhāji because of the reddish appearance resembling blood. The •use of taroī (Luffa Acutangula) is forbidden because of its supposed resemblance to the horn of the buffalo and brinjal (Solanum Molongena) is repugnant because of its resemblance to the scrotum of the same animal. During the recent years of famine these restrictions have been given up to a great extent. In the out-lying villages of Bilaspur District the Satnāmīs will be found much more staunch in their beliefs and practices than along the Railway line. A great change is coming over these people who unanimously state that they are quickly drifting away from the position taken up by their first gurū, Ghāsi-dās.

Yoking Cattle.—Ghāsi-dās forbade the yoking of oxen for ploughing purposes after the mid-day meal. This injunction is still heeded by great numbers of Satnāmīs. In cases of necessity I have known them to continue ploughing from early morning to late in the afternoon in order that they may not break away from the old practice. The original idea seems to be that of compassion for their cattle.

Amongst the Satnāmis there may be found a select few who are Jahariyā known as Jahariyās. The prevailing opinion

in regard to them is that they are the best of the Satnāmis. According to one story when the Chamārs were being boiled in the rice caldron, the Chamārs who stuck to the bottom of a caldron and were burnt are the Chungiyās. Those who were boiled in the centre are the Satnāmīs, while those at the top are the Jahariyās. They are held in high esteem by the Satnāmīs. They have the chief characteristic of never sleeping on a bed but always on the ground. They are said to wear coarse, uncoloured clothes, and some say that they eat only dāl and rice. The children of Jahariyās intermarry with other Chamārs and are not necessarily of the same section as their parents. This seems to be a vow taken by certain Satnāmīs. The Order is said to have arisen after the time of Ghāsidās. When one is found fastidious in food and drink he is taunted with the saying "You wish to be a Jahariyā."

2. The Chungiyā Chamārs may also be termed "the smoking Chamārs" for it is principally in regard to smoking that they differ from the Satnāmīs.

The word Chungiyā is applied to a pipe made of a rolled leaf. It is said the Chungiyas are back-slidden Satnamis, those who found the restrictions imposed by Ghāsi-dās altogether too severe for practice. A Chungiyā may become a Satnāmi by breaking a coccoanut in the presence of the Gurū and by the payment of a rupee (more or less according to status). The Chungiyas consider the Satnamis as superior to themselves and sometimes endeavour to pass off as Satnāmis. As a matter of fact these two sections of Chamārs intermarry frequently but the more strict Satnāmis are opposed to intermarriage with Chungiyās. Smoking and idolatry are the chief points of demarcation between these two sections. The Chungiva village invariably contains stones covered with vermilion while no settlement of staunch Satnāmīs will show any signs of idolatry. Both the Satnamis and Chungiyas wear the necklace of wooden beads known as a kanthi (from the word meaning 'neck'). This neck-lace is said to be placed round the child's neck soon after birth and it is broken immediately a person expires. It may be renewed when it is old. The glass bangles worn by women are also broken before burial.

They rear no poultry, goats or pigs. They eat the flesh of cattle Peculiarities of the which have died a natural death. I know Chungiyā. many who use intoxicants. They may be considered to represent the Satnāmīs in their former state, that is, as

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Ghāsi-dās found them before his great reformation. Together with the Satnāmis, the Chungiyas are chiefly agriculturists. These two sections of Chamārs are Chamārs only in name for they do not work in leather as in other parts of India. They call themselves Chungiva and Satnāmī respectively. A Chungiyā calls himself Chamār, Chamrā Sitāramiyā and Chungiyā. The Kanaujiyā Chamār calls the Satnāmis and Chungiyās, Jheriyā, a word which I think may have come from the word jhāri. Is it not probable that when the Kanaujiyā Chamārs immigrated into these uncivilized parts they found other Chamārs in these places whom they called the Jangli or Jhāri Chamārs? This term is very much disliked by those to whom it is applied and it is a term of contempt used by the Kanaujiyā Chamārs only. It may be noted here that there are also Jheriya Telis, Jheriya Marars, etc.

The Hindus term all the Chamārs alike as Chamrā. Of the different kinds of Chamārs, the Hindus appear to hold the Satuāmīs in higher esteem because of their many restrictions as to food and their general cleanliness of person and habitation as compared with the other Chamārs; this is worthy of notice when we consider that the Chungiyā and Kanaujiyā Chamārs are religiously more closely allied to the Hindus and worship the same deities which the Satuāmīs entirely ignore. While Satuāmīs observe most of the Hindu festivals I find that they do not take part in the Holī. It should be remembered, however, that my remarks with regard to the Satuāmīs apply only to the staunch members of this sect. As I have already noted, there is an increasing indifference amongst them.

8. The Kananjiyā Chamārs are the Chamārs proper, for, they

Kanaujiā. are the leather-workers. Their villages and houses are invariably most dirty and disagreeable. In appearance these Chamārs are far inferior to the Satnāmīs for they usually have a dissipated appearance. They are much given to the use of intoxicants and during a marriage or after a burial they meet together and drink large quantities of liquor. They eat pigs' flesh but do not rear the pigs. They make shoes of a peculiar type. In some portions of the Bilāspur District, I am told, there are Kanaujiyā Chamārs to whom the above remarks do not apply. My observations are mostly confined to the Mungēlī Tahsil.

4. Ahirwār Chamārs are very similar to the Kanaujiyā Chamārs

Ahirwār.

though they do not intermarry. I have not made very detailed enquiries into this sec-

tion. They appear to be small in numbers. I am told that they make shoes of a different type to the Kanaujiyās. The Kanaujiyā shoes are of one single piece of leather. The Ahirwār shoes

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have a separate portion for the front. The Ahirwārs moreover make shoes with much fancy work, silver thread worked in red cloth. This work is done by the women. Before an Ahirwār girl can be taken in marriage she must show herself efficient in this kind of needle work. The Kanaujiyā fancy work on shoes is not as elaborate as the Ahirwār work. Kanaujiyā shoes are named "Nirjāhi" (probably from *Nirjor*, meaning without joint) also Munda, meaning plain or bare. Ahirwār shoes are called "Salāhi." The Ahirwār shoes are considered the more lasting.

2.—The Kurmis.

The Sub-castes are as follows :---

1. Deshā.

2. Chandaunā.

3. Gabel.

4. Sarāti.

5. Manwā.
 6. Ekbahiyāņ.

- 7. Kanaujiyā.
- 8. Phuljhariyā.

9. San-boyā.

1. The Deśhā Kurmis are found mostly in the Mungēli Tahsil. They are peculiar in that they do not rear poultry and avoid residing in villages in which their neighbours would keep poultry. They will not tease cotton, their women do not wear a *nath* (a nose ornament). The Deśhā Kurmi may not have two wives who are sisters. If a Deśhā Kurmi should purchase a pair of shoes which prove too small for him he cannot on any account sell the shoes to another. He may make a gift of the shoes to some poor Brāhman. If he should sell the shoes his caste people will demand a *Bhāt* for this offence. The Deśhā Kurmis are all of one Gotra, known as Kāshi Gotra (this word may be a corruption of Kaśyap).

Amongst Ekbahiyāñ Kurmīs, as their name signifies, the women wear bangles on one arm only, glass bangles on one arm and metal bangles on the other.

Phuljhariyā. This word means the withering of the flower; phul, flower and jharnā, to wither, or droop.

The Sanboyā Kurmis are those who cultivate San (or hemp). This cultivation is usually confined to the Mulhā and Gond castes but the Sanboyā Kurmis are also permitted to engage in it.

The Kurmis both burn and bury their dead. If in good circumstances the Kurmi will undoubtedly be burnt.

3.-Teli.

Mr. Risley in his "Tribes and Castes of Bengal" mentions two distinct kinds of Telis. The one soaks up the oil from the ghāni (oil

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mill) and the other allows the oil to trickle down through a hole in the side of the *ghāni*. The former he says regards the latter as greatly inferior. The Telis of Mungell Tahsil appear to be entirely of the latter class, and they know nothing of the Telis who soak up the oil from the *ghāni*. The Tell sub-castes are :--

1. Jheriys, most numerous in Bilāspur.

2. Ekbahiyān, who wear glass bangles on the right arm and Rāng bangles on the left.

3. Madpotwā, in former days used to distil intoricants. They are found near the hills. They keep pigs and poultry. Jheriyā Telis do not rear poultry and pigs though they keep goats and eat their flesh. If a Teli should have worms in a sore he will call together the Telis of the Sanwāni Gotra and give them a feast, for by so doing he removes his impurity. When the ghāni is first placed in the ground five pieces of haldi (turmeric) some cowries and a supāri (areca nut) are placed under it. The Teli's Ghāni or oil-press, in common with mills of every kind amongst all the castes, is invariably turned from the right to left.

4. The Çrī Bāsnā Telīs and the Ekbahiyān Telīs in marriage processions take the bridegroom on a *pālki*, whereas the Madpotwā, the Deśhā and the Dhimar Telīs take the bride and bridegroom in a $g\bar{\sigma}r\bar{\sigma}$ or cart.

4.-Marār.

The sub-castes are as follow :---

1.	Kosariyā.	4.	K ā chi.
2.	Bhoirā.	5.	Jheriyā.
3.	Hardiyā.	6.	Pabiyā.

The Marārs are gardeners or vegetable-growers. The Kosariyā Marārs do not eat *Rengaiyā bhāt*, that is, food which has been carried from one place to another. Most Marārs are obliged to employ a dolāor *pālki* in their marriage processions even when the bride's house is next door. The Marārs do not rear poultry but they may rear goats. They use tobacco but not intoxicating drinks. A Brāhman's presence and service are required at the marriage ceremony. Both burial and cremation are practised in this caste. The Bhoirā Marārs are considered the lowest. They use intoxicants freely and do not necessarily employ a *pālki* in the marriage procession. The favourite gods in this caste are Dulhā Dev and Thākur Dev.

5 — Garariy ās.

The sub-castes are as follows :---

1. Jheriyā.

- 3. Nikhar.
- 2. Deśhā. 4. Dhengrā.

The Garariyās are the shepherds of this Tahsil. Their sole occupation is to tend sheep and to weave blankets of the wool from their flock. The Jheriyā Garariyās weave blankets in three separate patis or strips and these are sewn together length-wise. They use only a small loom. The Nikhar and Dhengrā Garariyās weave the whole blanket on a large loom. The Garariyās do not keep poultry and pigs. They will not eat the flesh of sheep which have died a natural death.

6.—Kumhār.

The sub-castes are :-

1. Deśhā. 2. Jheriyā.

8. Phuljheriyā.

The Kumhārs make earthen vessels and also tiles. I am told that no Kumhārs keep poultry and that only the Deshā Kumhārs use intoxicants.

7.-Baret.

There are four sub-castes, viz. :--

- 1. Jheriyā. 3. Deśhā.
- 2. Kanaujiyā. 4. Dhobahā.

The Barets are the washermen and are found in every village where there are Hindūs. The Kanaujiya Barets are considered the best. The keeping of poultry and goats is not forbidden in this caste. They use both intoxicants and tobacco. They may both burn and bury. They wash for all the castes except Chamārs and Ghasiyās. The Barets all employ Brāhmans in their marriage ceremonies. The Kanaujiyā Barets require his presence at the circumvention of the marriage pole but the other Barets employ a Brāhman merely to fix an anspicious day for the marriage ceremony.

8.—Badhai.

It is worthy of notice that there is no Badhai (carpenter caste) in these parts. The Chamārs have many of their own people practising carpentry but those who belong to the true Badhai caste are all of them immigrants from the United Provinces. I am told that the few *pardeshi* (foreign) carpenters in this District came from up-country together with the Kāyasths after the Mutiny of 1857.

9.—Ghasiyā.

The sub-castes are :--

- I. Lariyā.
- 2. Ramgariya.
- 4. Dingkuchiyā. 5. Maudarchāwā.
- 3. Oriyā.

6. Dolbohā Lariyā

The Ghasiyās are also known as the Thanvārs. The chief occupation is that of a groom or grass-cut. They also trade in baskets and

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supas (winnowing fans), combs made of bamboos and marbles. They do not make these articles but carry them a long distance in order to make a small profit. Lariyā Ghasiyās are considered the best. Together with all the other sub-castes, they rear pigs. The Oriyā Ghasiyās often do the work of sweepers. The Dingkuchiyā Ghasiyās as their name intimates are employed chiefly to castrate bullocks, buffaloes and horses. The word kuchiyā means to crush, while the first syllable in this name probably means the testes of an animal. The Mandarchāwā are employed They do not object to disposing of the carcasses in making drums. of cattle. Dolbohā Ghasiyās as their name indicates carry the dolā or pālki for several castes. The Ghasiyās mostly worship Dulhā Dev, whose altar is invariably found near the cooking place. The Rāwats will not wash the plates of the Ghasiyās. This caste is very much given to the use of intoxicating drinks and drugs. Their women frequently go out as midwives. There is one peculiarity amongst the Ghasiyas which requires special notice. They will never take salt from the house or hand of the Kāyasth. If a Ghasiyā should be employed as a syce in the service of a Kāyasth he will not, on any account, hold the stirrup for his master, neither will he handle his master's bedding or clothing. The Ghasiyās say that these restrictions are due to some Kryā or vow taken by their ancestors in connection with the Kāyasths.

The Ghasiyā may take salt from the house or hand of a Chamir but he would be out-casted if he should take salt from the Kāyasth.

Since writing the notes concerning the Ghasiyas, I have heard the following story in two widely separated portions of the Tahsil. It explains the cause of the feeling of the Ghasiyās toward the Kāyastha. It is said that away back in the distant past the Kāyasths invited all the Ghasiyās to a feast with the object of poisoning them. The Ghasiyās responded to the invitation in large numbers. During the feast, in some way, two of the Ghasiyās a man and a woman (some say a boy and a girl) discovered that the Ghasiyas were being poisoned and they made their escape and hid themselves under the loom of a weaver, or Pankā. It is from these two who escaped that all the Ghasiyas have descended and they have taken a vow never to receive even a pinch of salt from the treacherous Käyasths, who all but exterminated their caste.

10.—Rāwat.

There are seven sub-castes, viz. :---

- 1 Jherivā.
- Deśhā. 2.

3.

Phuljhariyā. 4

Kanaujiyā.

- 5. Kosariyā.
- 6. Kauriya.
- 7. Dharbhol.

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The Rāwats are the watermen and cattle-grazers. Excepting the three last-named sub-castes the Rāwats may cook for each other but one may not add salt to the food for another. Each kind of Rāwat will add the salt for himself. The Kosariyā, the Kaurai and the Darbhol Rāwats are said to eat with the Gonds and to rear pigs. These three sub-castes are found mostly in the hills. The Kananjiyā Rāwats are considered the best. They do not fill water for others, nor will they wash plates. A Kanaujiyā Rawat will not graze the Bardi. They will graze only the Gorhi. The Gorhi, I am told, contains no bullocks or buffalces while Bardi means an indiscriminate herd of cattle. Pāhat is a term applied to a herd of cattle owned by one man and the Rāwat who grazes the pāhat is called the pāhatiyā.

B. SOME BELIEFS AND PRACTICES COMMON TO VARIOUS CASTES.

1. Marriage by Capture.—During a Chamār wedding I noticed the remains of the old practice of "Marriage by Capture." When the bridegroom's party was approaching the house of the bride for the marriage ceremony there was a sham fight between the friends of the bride and bridegroom. The boy's friends lifted him up on their shoulders and, surrounding him on every side, approached the bride's home swinging around their lāthis in a threatening manner. On reaching the bride's house they crossed sticks with the bride's friends who gradually fell back and allowed the bridegroom's friends to advance. The women of the house gathered with baskets in their hands and some threw about rice or Murrā in pretence of self defence. When the cudgels of the bridegroom parties struck the roof of the bride's home (or the Madwa) her friends considered themselves defeated and the sham fight was at an end. This practice is known as Parghauni dhātā. It is common to all castes in the Mungeli Tahsil.

2. Marriage restrictions.—When a husband dies his wife considers it proper to go to her Dewar, her husband's younger brother. She will never go to her husband's elder brother whom she respects as a fatherin-law. Amongst the Chamārs a man may have two wives who are sisters. Except amongst the Gonds and Ghasiyās the marriage of cousins is forbidden. The Ghasiyās and Gonds allow the marriage of cousins on the mother's side because they are of different gotras, but the cousins on the father's side are considered as brother and sister. They are of the same gotra, and may not intermarry.

3. $M\bar{a}m\bar{a}$ $Bh\bar{a}c\bar{a}$.—It is said amongst the ordinary people of this District that $M\bar{a}m\bar{a}$ and $Bh\bar{a}c\bar{a}$ (maternal uncle and nephew) should never cross a river in the same ferry. During a storm if they should be in the same house there is danger of the place being destroyed by a

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thunder-bolt. The nephew must not touch the uncle's head nor must he touch his shoes, nor eat the food left by his uncle. The uncle should never strike or beat his nephew. If he should stumble against him by accident the uncle will ask the nephew's pardon. I know a man who is afflicted with palsy and it is attributed to his having beaten his sister's son.

4. Twelve-and-half Castes.—In these parts all the different castes are said to have 12¹/₂ sections. The Chamārs unanimously declare that there are 12¹/₂ kinds of Chamārs but they are unable to name the whole number. They say that fallen women make up the half.

5. Aversion to killing a cat.—There is a strong aversion to the killing of a dog or cat. A dog may be killed, but to remove a dead dog will out-caste the remover. A sweeper alone should do this. To kill a cat means that the offender makes himself responsible for all the sins committed by that animal, and these are numerous because of the many lives of birds and rats which have been taken by the offending cat. The killing of a cat will out-caste the offender.

6. Graves.—Amongst the people of this Tahsil the grave is always dug from north to south. One reason assigned is that the head of the earth is to the North. Another reason is that, in the Satyuga, the sun rose in the North and in each succeeding Yuga it has risen at a different point of the compass till, in Kaliyuga, it rises in the East.

7. Names.—Despicable names are very frequently given to children especially when the parents have lost one or more by sickness or miscarriage. A woman expecting a child will sometimes go through the performance of the sale of a child to a neighbour. She is given five or ten couries for which she promises to make over her child on its birth to a neighbour. The child is nominally her neighbour's child and is named Pächkäur or Daskäur as the case may be.

It is considered inadvisable to expose a young child to the gaze of a large number of persons. There is a desire to secrete a child up to a certain age. The result is frequently disastrous to the health of the infant who pines for light and fresh air. In this connection it may be mentioned that the giving of nick-names after some chief characteristic is exceedingly common and hence we find the following names of men and women :--Kanwā (blind), Bhirā (deaf), Kondā (dumb); Khorwā (lame), Kariyā Kāri (black), Bhurwā, bhuri (fair). It does not follow that one who is named dumb is speechless. He may have been late in speaking.

8. Miscarriage.—Miscarriage is almost invariably attributed to the Tonhi or witch. If the supposed witch should touch the woman with child, or hand her some eatable, or in bathing if a drop of water

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should splach, on to the expectant woman, from the garment being washed by the *Tonhi*, the results are said to be disastrons. This last cause of miscarriage is said to be most common and may be attributed to a woman having injured herself while bathing or washing at the river side or tank.

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9. Birth practices.—Midwives are mostly Chamārs of the Kanaujiyā and Chungiyā sub-castes or Nagārchis. Ordinarily a woman receives two annas for delivering a girl, four annas for a boy, as well as a piece of cloth. The barber and the washerman also receive presents. Amongst the better class of Chamārs and farmers, it is customary for the new-born infant to be placed in a *supa* or winnowing fan. A bed is made of rice and the infant is placed in the nest of rice and this grain is then given to the nurse. The nurse will also go to the house of the head-man of the village, and to the near relatives of the new born infant, and make a mark with cow-dung before the main entrance. On seeing this sign the master of the house presents the nurse with grain or money. It is usual to withhold food for six days from a woman after confinement. Liquid of every kind is withheld for three days.

Bhandārnā.-The still-born infant or one which passes away 10. before the Chatti or sixth day, the day of purification, is not taken away to be buried. It is placed in an earthen vessel or ghara and is buried in the door-way or in the yard of the house. By so doing some say that the mother is likely to bear another child, but others give no reason for this practice; a prominent Satnāmi, who undoubtedly knew of this practice, stoutly denied all knowledge and declared he had never heard of it. A feast is required of the relatives of the deceased only if the body is taken to the burial ground, and the idea of burying in the yard may have arisen from a desire to avoid giving a feast. Others maintain that the stillborn or young infants are especially sought after by the Tonhi or witch and to avoid their being made into Mukhā Dev (or the dumb spirit) the infants are buried in the house or yard. This practice is known as Bhandārnā. It is common to all castes in this Tahsil. Lam not prepared to say that it has any connection with infanticide.

11. Witches.—The fear of evil spirits is very firmly fixed in the minds of the people. Some declare that spirits are not as numerons now as they were formerly. They are not so much talked about; in other words, the people are finding more topics of conversation; the belief in the evil-eye is still prevalent and a volume might be written on this fruitful subject. Those who practise witch-craft are nearly always women. The *Gunai* or remover of the evil-influence, on the other hand, is almost invariably a man. The witch is said to do her work with two and a half letters "Arhā'ī Akshar." The *Gunai* requires seven letters.

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I do not understand the force of this saying. Any one who is practising witch-craft is said to experiment on trees by causing them to wither and revive according to his will. He first throws some rice at a tree and mutters certain words which will cause it to wither. He should then revive it. This is the crowning test of having acquired the tricks of witch-craft. If one should try to learn the practices of a witch and fail he is said to become insane and is called anshiki. In order to bring a familiar spirit under control the spiritualist is said to go and sit near the grave of a recently buried person. He must go there naked and, lighting a small lamp, must sit near the grave, nodding the head, in fact swaying the whole body, most persistently and perseveringly till the spirit of the dead appears. The spiritualist then commands the spirit to come under his control to obey his slightest wish or inclination. From that time forth the familiar spirit may be used for any purpose, even for the killing or sickening of a neighbour. Both the old and young women are said to have familiar spirits, but the evil influence of the young women is much greater than that of the old. With advancing years the power of the witch is said to diminish. A clod of earth taken from a newly dug grave will suffice to enable a spiritualist to call up the spirit. Hence for three days after a burial graves are closely watched and women are never found attending a burial. The witches are said to prefer, as familiar spirits, those who have been hanged, or such as have had the head severed from the body. There is a spirit or ghost known as Murkātā or the headless ghost. There is a small goblin known as Matiyā (See Crooke's Folklore, Vol. II, 266). He is said to be very short in stature, and of a fair, reddish appearance. He appears with a kāwar or bamboo with suspended ropes for carrying goods. This Mativā is sent by a witch to destroy the prosperity of certain homes. He has but to carry away a small portion of the food of the house and from that time forth, however much grain may be prepared, it will always prove insufficient. In order to keep away the Matiya a small kawar is made of an empty pumpkin and this is suspended from the roof of the house. It is supposed that the Matiya, on entering the house, will see the kawar and depart with the impression that the house is occupied by one of his own kind. The belief is very prevalent that the spirit of the deceased returns to the house the first night after burial, and, in order to know whether he or she has been to the house, there is a practice of spreading ashes in the door-way so that the foot-prints may be seen in the morning.

12. Botlagānā.—I find a practice amongst the Chamārs which is known as Botlagānā. Before a prominent member of a family is buried, it is customary amongst the Chamārs to make a mark on the body of

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the deceased, with either ghi or oil or soot, and this same mark is sought for on the body of infants who may in the near future be born into the family. If a child should be born with a mark similar to that made on the ancestor's person he is considered a re-incarnation of that individual.

13. Sickness.—The belief is very prevalent that if a woman during her period of sickness should take part in any affair it will undoubtedly prove unfortunate. If she should approach a man with opthalmia it is believed that he will lose his eye-sight by ulceration. This superstition applies to small-pox also, though in this case it is on account of the *Devi* being annoyed and giving her victim increased suffering by greater violence in the symptoms. A woman in this condition will also avoid entering the house of one in labour. Her presence is said to increase, unnecessarily, the labour pains and, if the child is born, it is said that her presence will bring on infantile jaundice.

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14. Burhā Māi.—A person with small-pox is said to be troubled by the Dēvī or goddess, Mātā or Burhā Māi, hence outsiders, if they approach the house of one with small-pox, do so with much reverence, taking off the shoes and turban, holding their hands together in a supplicating manner and doing obeisance.

15. Iron and Oholera.—During a cholera epidemic there is a desire to avoid the use of the name of the disease. This sickness is often called Hāwā (wind) or simply Bimāri (sickness), or Duhkhī. The idea prevails amongst the lower castes that the presence of iron wards off the disease or the goddess, hence during the epidemic people are frequently seen moving around with an axe or sickle.

16. Pregnancy.—Pregnant women are considered specially liable to the evil influence of witches, because of there being two lives "Dojiva." They therefore take special pains to avoid them. In the event of a woman having died in child-birth or during pregnancy, her spirit is considered to be specially sought after by the witches. Inoreased precautions are therefore taken after the death of a woman in child-birth.

17. Worms.—Amongst all castes if worms should be found in a sore or ulcer the person so afflicted is considered an out-caste. It is necessary to feed the caste people and to perform various other rites to be re-admitted to caste. When there are worms in a sore, the expression used is "Phul par gayā."

18. The winnowing Fan.—There is a firm belief that if a "Supā," or winnowing fan, should be placed on a cart, it will canse the cart to move slowly, and will considerably increase the weight. Hence all household goods are placed on a cart, excepting the "Supā" which is carried in the hand of those going on foot.

Some Notes on the Räjvamçi Caste.—By BABU MONMOHAN ROT, Deputy-Magistrate, Rangpur. Communicated by the Anthropological Secretary. [Read 5th November, 1902.]

In the discussions on the *Rājvaniņ* caste, it is too readily assumed that "Koch" and "*Rājvaniņ*" are synonymous terms like, for example, *Candāl* and *Namaņūdra* and that the Koch, having founded the kingdom of Koch-bihār, blossomed into a *Rājvaniņ* and assumed that high sounding title. It is, however, significant that in all previous Censuses, Kock and *Rājvaniņ* were, to a certain extent, separately returned. In the present Census, the statistics have been compiled on the assumption that they are one and the same.

Apart, however, from any theory as to their origin, it is a patent fact that so far at least as the Rangpur district is concerned, Kock and Rājuaniçī form distinct castes. I have enquired from a large number of competent persons—the District Engineer, Sub-Divisional Officers, Police Sub-Inspectors, School Sub-Inspectors, educated natives of the district, inhabitants of villages where both Kockes and Rājuaniçīs reside—and I have found a consensus of opinion on the point that, as a matter of fact and irrespective of any question as to identity or difference of origin, the Rājuaniçīs and Kockes form entirely distinct castes. I beg to point out some of the differences between the two castes and the subject will be found to open out into one of wider interest and importance, vis, the general characteristics of the major portion of the Rājuaniçī population of the Rangpur district as contrasted with those of the minority living in the northern part of the district bordering on Koch-bihār and the Rājuaniçās of Koch Bihār and Jalpaiguri.

The Koches like the Rājvamçīs are in the main agriculturists by occupation. There is a well-known Koch named Rāmdhan Mandal, of Bhendābāri in thana Pirganj, who is a petty zemindar and the proprietor of a Mela (fair). In village Tamphat, Thana Mahiganj, there is a Koch named Hari Das who is a teacher in the local Primary School. But though there are many Koches whose calling is not of a degraded nature, still, taking the caste as a whole, there is one occupation which constitutes a badge of inferiority. A Rājvamçī will never consent to be a pālki-bearer. He considers that to be an occupation too low and degraded for his caste — but there are many Koches who are pālki-bearers by profession. There is, however, a difference between them and other pālki-bearing castes, in that they will not carry any but high-caste Hindus, such as Brāhmans, Vaidyas, Kāyasths.

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The Rajvamçis and Koches are of course, different endogamous They do not intermarry nor dine together. The social groups. status of the Koches is distinctly inferior to that of Rajvameis. The latter affect greater ceremonial purity than the former. With rare exceptions the Rajvamçis have got Brahman priests. These priests are, for the most part, Kāmrupi Brāhmans; there are also many local patit Brāhmans; of late, they have also got a few Maithil Brāhmans as purohits. I am informed that the same Brahmans serve the Rojvampis, Klyans, Kumhars and Napits. Some of the Koches have not yet adopted Brähman priests, but most have done so and there is a growing tendency towards the general adoption of Brahman Purchits. I am informed that in village Tamphat, there is a degraded Brähman, whom the local Koches have recently dubbed as their priest. Kāmrupi Brāhmans served Rajvamois and Koches indiscriminately but local Brahmans who serve Koches occupy a distinctly lower position than the Brahmans who serve Rajvaniçis. The Koches have also in most cases secured the services of the Nāpit, though not so generally as the Rājvamçis. The eating of pork is widely prevalent among the Koches, though a growing tendency to eschew it is discernible. This giving up of pork marks one of the stages in the gradual advance to the standard of Hindu orthodoxy. The vast majority of the Rajvamçis have passed this stage long since, though, among a very small number in the northern part of the district, there is still some lingering attachment to pork. To a certain extent, the same is true of the practice of Nikā or widow-remarriage. It widely prevails among the Koches. Among the higher class Rājvanicis. widow-marriage is strictly forbidden, though, among the lower class, it still obtains to a large extent in the northern part of the district, and to a slight extent in the other parts. The Rajvamçis are, practically speaking, all Vaisnavas. The Koches may be considered as Caivas, though Vaispavism has made great progress among them. Both the Rajvampis and Koches worship all the various gods and godlings of the Hindu pantheon. There is, however, one important respect in which the influence of Caivism is clearly discernible. The worship of "Sannyāsī Thākur" widely prevails in these parts, but it has not so large a hold on other castes as on the Koches. The image is stuffed with straw and resembles a male person, with a beard and big belly, constantly occupied with smoking gānja. The principal article of offering is ganja. The worship of this Devata is supposed to protect people from disease, chiefly fever. It is clearly a corruption of the worship of Civa; this worship has a wide vogue among the Koches. There is an image in almost every house and the worship goes on in all scasons. Many Koches sacrifice pigs before Sannyāsi Thākur. It is a

curious relic of some old tribal faith superseded by, and metamorphosed into, Çaivism. Though Sannyāsī Thākur is worshipped to some extent by the Rajvampis, and for the matter of that by other castes also, still he is not a principal object of worship among them, but is relegated to a position of minor importance. The fact is that the catholic and tolerant spirit of popular Hinduism does not refuse admittance to strange gods into its pantheon, not even to a Mahammadan saint like Satya Pir, provided that the worship is cast into the mould of Hinduism ; and when a Devatā is once admitted, he is worshipped by all sorts of people in the locality concerned. The worship has, however, a special hold on the caste or tribe to whom it originally belonged. Thus though Sannyāsi Thākur is now worshipped by all castes in Rangpur, still he is in a special manner the Devatā of the Koches and the fact, that this worship is a corrupt form of Civa worship, shews the predominance of Caivism among them. The Koch has a great partiality for pigs. It appears that many Koches sacrifice pigs at the altar of another Devatá called Burhi. Burhir pujā (literally the worship of the old woman) prevails in the Rangpur District to a large extent, among all castes, but while the Koches (or many of them) sacrifice pigs before her, other castes do not do so. This Burhir Paja is nothing but a corrupt form of the worship of Candi (a form of Cakti worship). It is supposed to protect infant-life from various diseases, especially convulsions. Spindles and horses made of pith are offered. In the northern part of the district and in Koch Bihar, the goddess is called Burhi or Burhicandi.

I have said above that the Koch is more degraded than the *Rājcanīgī*. I may observe in this connection, that the higher castes take water from the hands of the *Rājvanīgīs* except, of course, for drinking or cooking purposes. They will also use *Kacchi* sweet-meats carried by *Rājvanīgīs*. These concessions are, however, denied to the *Kockes*. The number of the *Koches* in the Rangpur district is very small, as compared with the *Rājvanīgīs*, who form the great body of the Hindu population of this district. The Sub-Inspector of Kurigram estimates the number of *Koches* in his police circle as one quarter that of *Rājvanīgīs*. The barber of a certain village in *thana* Mahiganj informs me, that in his village there are about twenty houses of *Koches* and 100 houses of *Rājvanīgīs*. But taking the district as a whole, the number of *Koches* cannot, I think, be more than five per cent. that of *Rājvanīgīs*.

The physiognomy of the great majority of the *Rājvariņcis* of the district—except the northern part bordering on Koch Bihār—is distinctly Dravidian. One sometimes meets with the Aryan type also. This is due to the fact that Aryan immigrants came at various times by the tide of conquest, or for trade or service, and there were frequent *liaisons*

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between them and the *Rājvamçis*. The physiognomy of the *Rājvamçis*, however, over the greater part of the district is markedly Dravidian. As we proceed northward, the Mongoloid type appears. The facial characteristics of the *Koches* are decidedly Mongoloid. Competent observers who have seen villages containing a large *Koch* population inform me that they have been struck by what they call the *Pāhāriā*-like (resembling Hill tribes) appearance of the *Koches*—their short stature muscular frame, low broad nose and high cheek bones. The nasal index is specially marked. The nose is very low in the bridge.

I am inclined to think that the distinction between the Rajvamçis and Koches in the Rangpur District is not of recent growth, but points to a real ethnological difference. The theory that the term Rājvamçi is merely a recent title of the Kock who assumed it on the establishment of the kingdom of Koch Bihār does not, on a close examination of the existing facts, appear to be a tenable one. It is important to observe that the Rajvanicis of Rangpur look down upon the Koch Bihar Rāj family and the connected Rāj families of Pāngā and Jalpaiguri from a social point of view. They consider them to be Koches. It appears that a Rājvamçī family near Nilphamāri was outcasted for contracting an alliance with the Jalpaiguri Rāj family and had to remove to Jalpaiguri. Some time ago a scion of the Koch Bihar Raj family sought the hand of a Rajvamçi girl, the daughter of a clerk in the Rangpur Registration Office, but the latter declined the offer, though otherwise advantageous, from caste considerations. These are but a few instances of the belief widely entertained by the Rajvamçis here that they are socially superior to the members of the Koch Bihār Rāj family and most Rājvamçis of Koch Bihār whom they look down upon as Koches. This could hardly be the case if the origin of the term Rojvaniçi had been connected with the establishment of the kingdom of Koch Bihår by the Koches-for then the Mahārājā of Koch Bihār would, ipso facto, be the social head of all Rājvasnçis. The fact that Rājvasnçis and Koches live in the same locality and in many cases in the same village is also inconsistent with the assumption that they come from the same stock and that the Koch has evolved into a Rājvamcī. Had *Rajvaniçis* and *Koches* inhabited different parts of the district, then it might have been argued that owing to local conditions the Koches in one place had developed into Rājvamçīs while those in another place remained Koches. But, as already stated, Koches and Rājvamçīs may be found in the same village. It is highly improbable that some Kockes in the same local area should have developed into Rājvamçīs while others remained as Koches. It cannot be argued that wealth and education have helped the development in some cases and the lack of

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them has retarded it in others-for we find Koches like Rāmdhan (a petty zemindar and owner of a fair) and Haridās (a pandit)-while there are large numbers of poor and illiterate Raivamcis. It is also important to observe that the affinities of the Rajvamçis are with the south and south-west while those of the Koches are with the east and north-east. There are many Rajvamçis in the Pabna and Rajshahi districts. They are fishermen. The District Engineer of Rangpur, who is a native of Pabna District, tells me that there are numerous Rājvamçīs there, and that the Jāliyās (fishermen) of Pabna are for the most part Mālos and Rājvamçis. These Rājvamçi fishermen of Pabna, Rajshahi and some other parts of Bengal have been identified with the Tiyars, a Dravidian fishing caste (Risley's Tribes and Castes : Vol. II, page 328). I am inclined to think that there are close racial affinities between the Rajvamçis of Rangpur and those of Pabna and Rajshahi. It is true that the Rajvamcis of Pabna and other districts are fishermen while those of Rangpur are for the most part agriculturists. The nature of their occupation is however determined by local conditions. In districts like Pabna and Rajshahi fishing is an important occupation, owing to the existence of large rivers and lakes. There are also many agricultural castes. The contrary is the case with Rangpur.

It appears that even in Rangpur fishing was formerly to a certain extent one of the traditional occupations of the Rajvamçis, and Dr. Buchanan Hamilton gives a description of the mode of Rajvamçi fishing (vide Hunter's Statistical Account of the Rangpur District, page 171). The rivers of the Rangpur District having silted up and fishing having become unprofitable the Rajvamcis have for the most part given up their traditional occupation and taken to agriculture. Ι may observe by the way that this change of hereditary occupation by a caste, or the section thereof inhabiting a certain local area, is a thing of common occurrence in Bengal and has been a main factor in the creation of sub-castes. It is responsible for a good deal of the obscurity which surrounds the origin of several castes, and throws great difficulty in the way of correlating with each other various facts and phenomena connected with the caste system of Bengal, which, though apparently diverse, are really allied. There is a tradition which links the Rajvamcis of North Bengal with those of more southerly parts. The tradition is to the effect that some Rajvamçis in the course of hunting killed some cows which were grazing in the forest. For this they suffered excommunication and emigrated southward. One meets with the term Rajvamçi in Birbhum and other districts. It would be interesting to enquire what is the origin of the term Rajvanci Mal

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which is a well known sub-caste of Māl. In fact wherever the term $R\bar{a}jvamcci$ occurs we find it attached to people belonging to the Dravidian stock. On the other hand one meets with Koches in the east, in the Assam Valley, and also in the Garo Hills and Dacca. All this shews that the affinities of the $R\bar{a}jvamccis$ are in different directions. The affinities of the $R\bar{a}jvamccis$ lie in the direction which points to a Dravidian origin. It is the Dravidians who inhabited the Gangetic Delta at the time of the Aryan immigration and some of whom were pushed northwards by the tide of the Aryan conquest. The affinities of the Koches lie in the direction which points to a Mongoloid origin. The Koch and Mech appear to be allied races.

Various causes have operated to obscure the distinction between Rajvamçis and Koches. They both lay claim to a Kshatriya origin. These pretensions are not very old, but still they have cast a veil of obscurity on the real origin of the tribes. They rest on a very slender foundation indeed. There are certain passages in the Manusamhitā to the effect that some Kshatriyas lived in Paundrak, Odra, Drābir, Kamboj, Chin, Kirāt and other tracts, but that owing to the want of Brähmans they could not perform the ceremony of investiture with the sacrificial thread and other ceremonies. Hence they were degraded into Çūdras. There is a passage in the Tithitatva of Raghunandan in which the classic stream of the Karatoyā is described as watering the land of the Paundra. As the river Karatoyā traverses the districts of Rangpur and Dinajpur it is inferred from these passages that some Kshatriyas formerly lived in these districts and as the word Rajvamçi literally means "descendants of kings" and as the Kshatriyas formed the royal caste it is concluded that the present Rājvamcīs are descended from the Kshatriyas who, according to Manu had settled in the Paundra land. Manu describes the Kshatriyas who had been degraded into Çūdras under the circumstances stated above as Brātya Kshatriyas. Hence the Rājvamçīs claim to be Brātya Kshatriyas. The term Brātya Kshatriya as applied to the *Rājvamçīs* of Rangpur only dates from the Census of 1891 but the tradition of the alleged Kshatriya descent is somewhat older and was formerly embodied in the phrase "Bhanga Kshatriya." On such slender foundation is reared the superstructure of the alleged Kshatriya descent. By parity of reasoning the present inhabitants of Cin or China, Odra or Orissa and various other tracts mentioned in Manusamhita as containing outlying Kshatriya settlers may lay claim to Kshatriya descent. The disproportion between the few scattered Kshatriya settlers and the large number of Rājvamçīs who form the bulk of the population of this district, for 95 %, of the Muhammadans are mere Rājvamçī converts, must strike everybody.

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Even in those parts of India where the Kshatriyas were numerous in former days their number is now practically insignificant and it is strange that in these remote and outlying tracts the Kshatriya caste should be so strongly represented.

The Koches or so-called Rajvamçis of Koch Bihar and Jalpaiguri, rely on a certain passage in the Kälikä Puran which is to the effect that some bands of Kshatriyas fled from fear of Paracurama, took refuge in that part of the country and sought the protection of the Mahādev of Jalpec. The genuineness of this text is questionable, and an ethnological theory cannot be based on what appears to partake more of the character of a legend that of a historical fact. These pretensions of both communities to a Kshatriya descent have thrown obscurity on the real origin of the tribes and tended to obliterate the distinction between them. In regard to the Koches and the so-called Rājvamcīs of Koch Bihār this new fangled theory has superseded the older legend of descent from Çiva. I am informed that less than twenty years ago the Koches of Rangpur District usually described themselves Civavanics but now most of them give a wide berth to that title. The new legend of a Kshatriya descent has, both in the case of Rajvamçis and Koches given a great impetus to 'the movement against un-Hindu practices like pork-eating and Nikā. Both Rājvançi and Koch will before very long have made such an advance towards the standard of Hindu orthodoxy that all distinction between their manners and customs will disappear. The disintegrating influence of Hinduism has already destroyed or absorbed many of their old tribal beliefs and forms of worship. Still in the existing state of things there can be no doubt that the manners and customs of the Rajvançie represent a stage of progress towards Hindu orthodoxy considerably more advanced than that which the Koches have reached. This appears to be due to two causes. In the first place the Dravidian races, generally speaking, shew a greater aptitude for embracing Hindnism than the Mongoloid races. In the second place the Rajoamicis owing to their more southerly position came into contact with the Aryans earlier than the Koches. The Hinduism of the Rajramcis took a Vaissan tinge, while the Koches and the so-called Rajvamcis of Koch Bihir shewed a decided leaning towards the worship of Civa, a tendency which is reflected in the tradition which traces the origin of the Koch Bihār royal family to a liaison between Çiva and Hājo's daughter Hira, who however appears to have married a Mech. Mongoloid races when coming under the influence of Hinduism shew a decided partiality for Çiva worship and its complement Çakti worship. And in fact the region near the Himalayas is represented as

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sacred to Çiva whose abode is on Kailās, one of the peaks of the Himalayas.

Another fact which has tended to obliterate the distinction between the Rājvamcis and Koches (or the Dravidian and Mongoloid elements of the caste now known as Koch or $R\bar{a}jvamc\bar{i}$ is crossing with the Aryan immigrants. The Aryans have immigrated in considerable numbers at various times. I here appear to be some truth in the popular tradition that bands of Kshatriyas immigrated in very early times. We find in the Mahābhārata that Bhagadatta, king of Prāgjyotishapura or Kāmarupa, which included the present district of Rangpur, entered into a close alliance with Duryodhan, the king of the Kurns, gave him his daughter in marriage and fought in the battle of Kurukshetra where he was slain by Arjun, the hero of the Paudavas. During the long period of the rule of the Pala kings many Aryans came by the tide of conquest or for trade or service. This was also the case during the rule of the Kamatāpur Rājās the Muhammadan kings or subadars and the Koch Bihār kings and the early period of the British rule. The facility of communication afforded by the railways gave a great impetus to the Aryan immigration and up-country men from the congested districts of Bihār and the United Provinces began to pour in in large numbers. Liaisons between the Aryan immigrants and the Rajvancis and Koches were of frequent occurrence and were facilitated by the loose nature of the social organisation of the latter. The result is that Aryan blood flows in the veins of a large number of *Rivamcis* and *Koches* and their physiognomy has to some extent been modified accordingly. It is not unusual to meet Rajvamçis or Koches whose physiognomy is distinctly Aryan.

But the most powerful of all the causes which have operated to obliterate to a great extent the difference between Rajvampis and Koches is the mixture of these two tribes-and the difference between the characteristics of the Rajvamets of the greater part of the Rangpur district and those who live in the northern part bordering on Koch Bihar and in Koch Bihar itself is due to the varying extent to which this mixing together of the two tribes has taken place. The line of cleavage between the Koches and Rajvancis of the Rangpur district is to a certain extent (not wholly-as other causes have operated as disturbing factors) the line which separates the Rajvamçis of the south (i.e., the southern and central part of Rangpur) from those of the north. As we advance northwards the distinction between the Rajvamcis and Koches gradually ceases, the physiognomy become more and more Mongoloid, the manners and customs recede more and more from orthodoxy, and Vaispavism gradually gives place to Caivism and Cakti worship. The change is of a striking nature and has attracted the

attention of many observers. In the district Census report of 1891 it is remarked that "among the Rajvamcis there is a distinction between those who have adopted the Vaisnava faith and the followers of the god Civa. The latter appear to be Koches proper, being of Mongoloid origin, and having come from the north; they are closely allied to the Kuris and form a small minority of the tribe of Rajvamois. The former are of Dravidian stock, and are more numerous and respectable, forming the main body of agriculturists in the district." Hunter remarks "the characteristic features of these people-flat faces, broad nose and high cheekbones clearly shew that they belong to the Mongolian race and the marked Mongol physiognomy of the people is unmistakeable in the portion of the district bordering on Koch Bihar" (Hunter's Statistical Account of the Rangpur district, page 211). I have already stated that in the greater part of the Rangpur district the distinction between the Rājvamçis and Koches is clear and recognised on all hands. In the northern part of the district (Thanas Kulaghat, Nageswari, &c.); we find large numbers of persons who may be regarded as Kochued Rajvamcis. There the Koches and Rajvamcis are to a great extent intermixed but still the distinction is sufficiently clear. The separate existence of the class created by the alliance between Koches and Rājvamcīs marks a stage in the process of the amalgamation of the two races. There we find three classes: (1) the Rajvamots proper or pure Rājvamcis who consider themselves superior, (2) the Rājvamçu who have been socially degraded by contracting alliance with the Kock chiefs or with families connected with them, (3) the Koches. The second group are known by various titles Içar, Naik, Kor, Kārji, Deo, &c. Their number may be roughly fixed at about one-tenth of the total Rojvamçi population. They have some peculiar customs, viz. :-

(1) In many cases the *Chhāyā Mandap* (wedding canopy) is supported by bamboos and not by plantain stems.

(2) Pork is used in the *Baubhāt* or $p\bar{a}k\bar{a}$ -sparsa ceremony (the feast given by the bridegroom after the marriage in which his kinsmen, relations, and friends are supposed to eat rice prepared by the bride herself.

(3) In the Navānna (or new rice) ceremony rice is boiled and offered as a Pinda to propitiate deceased ancestors.

It is said that the pure and the intermixed (or Kochised) Bajvaries mix together in Harirlut only and in no other ceremony.

I am told that in the northern part of the district and in Koch Bihār, Bānsbibāha (or the practice of using bamboos instead of plantain stems in the marriage canopy) prevails to a great extent. Pork is used in some ceremonies or Yagnas though there is a growing tendency to

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between Koches and Rijvamçis. They practically form one caste. Some Rajvamçis in Koch Bihār however represent themselves as pure Roivancis and look down upon the Koch Bihar Raj, and many other so-called Rojvamçi families. One of them is Babu Panchanan Sarkār, a pleader of the Judges Court, Rangpur. He is a native of a village in thana Sitalkuchi in Koch Bihār. He says that in the sadar subdivision of Koch Bihar the so-called Rajvamçis are for the most part really of Koch origin while in the other subdivisions the majority are pure Rajvamçis. I have not however sufficient information to enable me to say what is the proportion of pure Rājvamcīs or in what localities they are to be found. One can only say in a general way that as one proceeds northward and eastward the Koch element in the composition increases. There is also a Mech strain in the composition. Every one whom I have asked says that as one proceeds northward the facial characteristics become more and more The nose is short and broad-very low in the bridge-cheek Mongoloid bones are high and there is a deficiency of beard and whiskers. The physiognomy of the Koch of Koch Bihar as described by a medical officer resident in Koch Bihar (page 492 of Mr. Risley's Tribes and Castes, Vol. I), is distinctly Mongolian "flat square faces; eyes black and oblique ; nose flat and short ; cheek bones prominent." It is true that the Koches have generally a dark colour. But colour is an affair of climate and is not a sure criterion of race. Mongoloid races who live in the tersi and further south have dark skins, while those who live higher up are fair. Much depends on the date of the immigration from the mountain slopes and higher latitudes. The reason why the Koches who founded a kingdom and were for a considerable time the dominant race shewed such eagerness for mixing with the Rajvamcis and assuming their name was their desire to embrace Hinduism coupled with the fact that the Rājvamçis had already entered the Hindu pale. It is not the Koches alone who have given up their tribal religion and become Hinduised by a process of silent conversion. The general cause appears to be the attraction of a lower to a higher form of religion especially when the latter form is catholic and tolerant. When the Koches were thus attracted to Hinduism and found themselves in the midst of another tribe who had already entered the Hindu pale they naturally wanted to blend themselves with that people. Their position as the dominant race, coupled with the loose nature of the then social organisation of the Rajvaniçis, gave them the desired opportunity and the merging of the Koch in the Rajvame i became an easy and rapid process. The progress however varied according to the distance from the centre of the Koch influence and the seat of the Koch authority. In the northern part

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the fusion of the two races was practically complete. Further south it was less so, owing to the weakening of *Koch* influence by distance and to the fact that the *Rājvam*çīs were there in touch with other Hindu castes. When the *Koch* power collapsed the process of blending suffered a check.

There are no sub-castes among Rājvamcis or Koches, but an affectation of ceremonial purity and a tendency to conform to the standard of Hindu orthodoxy have split up the Rājvamçis of the Rangpur District into two classes : the Pākāhārs and Kāchāhārs. The distinction does not exist in the northern part of the district or in Koch Bihar. The Pākāhārs affect greater ceremonial purity and look askance at widow marriage; the test of social superiority is the length of time and the number of generations during which there has been no instance of widow marriage in the family. They scrupnlously avoid all unorthodox practices. It is among the Pākāhārs only that the Gotra system has been generally adopted. Among the Kāchāhārs there are I think many families ignorant of the Gotra system. There is, so far, only one Gotra the Kācyapa Gotra and the most essential element in the conception of the Gotra system, viz., exogamy is wanting. Still all this shews that the trend towards orthodoxy among the Rojvamois is very rapid. Intermarriage with the Kāchāhārs is tabued among many Pākāhār families. Whether the Kāchāhārs and Pākāhārs will harden into separate subcastes or whether the Kāchāhārs will in the race for orthodoxy overtake the Pākāhārs cannot be predicted with certainty.

In Mr. Risley's Tribes and Castes, Vol. 1, page 493, mention is made of Madāçi as a sub-caste of Rājvamçi in the Jalpaiguri District. I am informed that there are Madāçī Koches in a tract north-east of Dhubri in Assam. They eat pork and drink spirits distilled from rice. Their religion is of the animistic form and they sacrifice ducks, pigeons, goats, and pigs to propitiate the spirits. I am inclined to think that the so-called Rajvamçi of Jalpaiguri like those of Koch Bihār are really Koches of the same stock as the Kochmandais at the foot of the Garo Hills and the northern parts of the Dacca District and the Madaci Koches of Assam. There is of course a considerable proportion of pure Rājvāmçis who belong to the southern or Dravidian type among them. The blending of races and the evolution of the Koch into the Rojvamçi is in Koch Bihar and Jalpaiguri so complete that the name Koch is utterly tabued and is practically obsolete, while in the greater part of the Rangpur District Koches and Rajvamçis live in the same village forming distinct social units. This is a cardinal fact and taken with the other fact that we find Rajvameis in the districts farther south-while we meet Kochmändäis and Madäçis Koches in the Garo Hills and Assam-furnishes the key to the whole question.

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Folklore of the Kolhān.—By C. H. BOMPAS, Esq., C.S. (Communicated

by the Anthropological Secretary.)

[Read 5th November, 1902.]

INTRODUCTION.

The Kolhān forms the western half of the district of Singhbhum in Chota Nagpur. The Hos or Larka Hos who form the bulk of the inhabitants are a branch of the Mundas of the Chota Nagpar Plateau. They are one of those Kolarian tribes of which the Santāls are perhaps the best known. I have collected some of the Folklore stories current among them, the recollection of which would, however, appear to be dying out.

The Rev. A. Campbell of the Free Church of Scotland, Santäl Mission, has printed a volume of Santäl Folk Tales collected by him in Manbhum, a neighbouring district to Singhbhum. As might be erpected there is considerable resemblance between those Santäl Tales and those now reproduced. I have heard some of Mr. Campbell's Santäl stories told by Hos precisely as he relates them, and there are many incidents common to both collections. On the other hand there is no resemblance between these Kolarian tales, and the Bengal stories published by Rev. Lal Behari De. In the latter I only notice one incident which appears in the Kollaën stories, the bringing together of two lovers through a long hair floating down a stream, but in Bengal it is the lady's hair that floats to her lover, while in the Kollaën it is always the long hair of the hero which inspires love in the heart of the Rājā's daughter.

The stories may be divided into two groups, the animal stories in which the principal characters are animals, for the most part denizens of the jungles, and the stories which deal with a settled state of Society with Rājās, priests and members of the different Hindu castes following their usual occupations. It is interesting, but perhaps scarcely profitable, to try and deduce from the latter some hints of the previous history of the Hos, who as we know them are a strongly democratic race, with a well developed tribal system. They look on themselves as the owners of the soil and are unwilling to admit the claims of any overlord.

I have made no attempt to put the following stories into a literary dress; I merely bring them as a few stones to the hands of the builders who build the structure of comparative mythology. t

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(1)-THE RIVER SNAKE.

Once upon a time a certain woman had been on a visit to a distant village. As she was going home she reached the bank of a flooded river. She tried to wade across but soon found that the water was too deep and the current too strong. She looked about but could see no signs of a boat or any means of crossing. It begau to grow dark and the woman was in great distress at the thought that she would not be able to reach her home.

While she thus stood in doubt, suddenly out of the river came a great snake and said to her: "Woman, what will you give me if I ferry you across the river"? She answered: "Snake, I have nothing to give you." The snake said I cannot take you across the river unless you promise to give me something. Now the woman at the time was pregnant and not knowing what else to do, she promised that when her child was born, if it were a daughter she would marry her to the river snake and if it were a son that, when the boy grew up he should become the "juri" or "name friend" of the snake. The woman swore to do this with an oath and then the snake took her on his back and bore her safely across the flooded stream. The woman safely reached her home and in a little time a daughter was born to her. Years passed away and the woman forgot all about the snake and her oath. One day she went to the river to fetch water and the snake came out of the stream and said to her: "Woman, where is the wife whom you promised to me?" The woman then remembered her oath and going back to her house she returned to the river with her daughter. When the girl came to the bank of the river the snake seized her and drew her underneath the water and her mother saw her no more. The girl lived with the snake at the bottom of the river and in the course of years bore him four snake sons.

Afterwards the girl remembered her home and one day she went to visit her mother. Her brothers when they came home were astonished to see her and said : Sister, "We thought that you were drowned in the river." She answered : "No, I was not drowned, but I am married and have children." The brothers said : "Where is this brother-in-law of ours?" Their sister said : "Go to the river and call him." So they went to the river and called and the snake came up out of the water and went to their house with them. Then they welcomed the snake and gave him great quantities of rice beer to driuk. After drinking this the snake became sleepy and coiling himself in great coils went to sleep. Then the brothers who did not like a snake brother-in-law took their axes and cut off the head of the snake while he slept, and afterwards their sister lived in their house.

(2)-THE SONS OF THE TIGRESS.

Once upon a time a cow and a tigress lived in a jungle and were great friends, they were never separated. Now in those days tigers did not eat flesh, but grazed like cattle, so the tigress never thought The tigress had given birth of doing any harm to her friend the cow. to two men children who were growing up fine and sturdy lads. One afternoon the cow and the tigress went down to a stream to drink, the cow went into the stream and drank and the tigress drank lower down. The cow fouled the water of the stream and the tigress tasting the water found it sweet and thought if the cow can make the water so sweet how sweet the flesh of the cow must be. So on the way back from the stream the tigress suddenly sprang on the cow and killed her and ate her up, leaving nothing but the bones. When she got home her sons asked her where the cow was, but the tigress said that she did not know and that the cow must have deserted them, but afterwards the boys found the bones of the cow and they guessed what had happened. Then they thought, if our mother has killed her friend the cow, she will surely kill and eat us next. So when the tigress was asleep they killed her with axes. Then they ran away and after going for many days through the jungle they reached a city and they found all the people in great distress because a tiger was devastating the kingdom and killing all the inhabitants and no one could kill the tiger. The Rājā of the city made a proclamation that any one who could kill the tiger should have half the kingdom and his daughter in marriage. The two boys being the sons of a tigress were able by their knowledge of tiger ways to kill the tiger. So they were given half the kingdom and the elder of them married the king's daughter and they lived happily ever after.

(3)-THE TIGER'S MARRIAGE.

Once upon a time there lived a Rājā who had one son and many daughters. One day the Rājā went into the jungle to cut grass. He cut a great deal of grass and tied it up in a big bundle and then he found that he had cut so much that it was more than he could carry. As he was wondering what he should do a tiger came by that way and seeing the Rājā in difficulties asked what he could do to help him. The Rājā explained that he had cut a bundle of grass which was too heavy to carry. The tiger said that he would carry the grass if he were rewarded for it: the Rājā asked him what reward he wanted. The tiger said that he wished for one of the Rājā's daughters in marriage. The Rājā reflected that he had many daughters and agreed to the proposition. Thereupon the grass was placed on the tiger's back and he carried it to the Rājā's palace. Now the Rājā was ashamed to give

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his daughter openly to the tiger so he told the tiger to wait by the water hole, and sending for one of his daughters bade her go and fetch water; the girl went to the water hole where the tiger was waiting and was carried off by the tiger. But the Rājā's son missed his sister and went in search of her. After searching some time he came to a cave in the jungle and looking in he was the tiger finishing the remains of the girl whom he had killed. Then the Rājā's son ran home as quickly as he could, and told the Rājā what he had seen.

The next day the tiger came openly to the Rājā's palace and asked to see the Rājā. He was taken to the Rājā and treated politely. Then the tiger said to the Rājā: "I am sorry to say that the wife whom you gave me has died, so you must give me another." The Rājā said he would think about the matter and invited the tiger to stay at the palace. So the tiger was given a good bed, and quickly went to sleep. In the night the Rājā's son boiled some large vessels of water and poured the scalding water over the sleeping tiger and killed him. Aud in this way the tiger died.

(4)-THE JACKAL AND HIS NEIGHBOURS.

Once upon a time a jackal killed a kid in a village and taking it to a little distance began to enjoy a good meal. But the crows who always make a noise about other people's business, gathered in a tree over his head and made a great cawing, so the villagers went to see what was the matter and beat the jackal severely and deprived him of his feast. On this account the jackal was very angry with the crows and determined to be revenged.

Shortly afterwards a great storm came on with wind and heavy rain and all the birds and animals were in danger of being drowned. Then the jackal pretended to be sorry for the crows and invited them all to come and take shelter in his house. But when the jackal had got them safely into his house he killed and ate them all; all except one *nilkanth* bird which he decided to keep for his breakfast the next day, so he tied the *nilkanth* bird, on to his tail and went away from that part of the country. But the *nilkanth* bird pecked and pecked at the jackal's tail until it not only pecked itself loose but hurt the tail so much that it became festered and swollen.

As the jackal went along with his swollen tail he met a potter going to market with earthern pots for sale. Then the jackal put on

• This is quite in accordance with Ho notions. If a man buys a wife there is an implied warranty that she is to last a reasonable time. If she dies shortly after marriage a sister or cousin has to be given to replace her.

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a bullying air and said that he was a sipāhi of the Rājā, and one pot of those being taken to market must be given to him; at first the potter refused, but being frightened he in the end gave one to the jackal.

Into this the jackal pressed the matter which had accumulated in his swollen tail and covered it over with leaves. Going on, the jackal met a boy tending goats, he told the boy that he had arranged with the boy's father to buy one of the goats in exchange for a pot of ghee, the boy believed this and took the chatty with its contents from the jackal and gave him a fine goat.

The jackal went off to his home in triumph with the goat.

His friends and neighbours were very jealous when they saw that he had so fine a goat and waiting till his back was turned, they killed and ate the goat, and then they filled the skin with stones and gravel so that it might seem that the whole goat was still there. The jackal found out what his neighbours had done, and he took the goat skin to a *muchi* and got the *muchi* to make it into a drum. Then he went to the banks of a deep river and began to play the drum. All the other jackals collected round and were lost in admiration of the tone of the drum. They wanted to know where so beautiful a drum was got, the first jackal said that there were many drums as good at the bottom of the river, and if they tied stones round their necks and jumped in they would find them. So the other jackals in their anxiety to get such drums jumped into the river and were drowned, and the jackal was revenged on all his enemies.

(5)-THE JACKAL AND THE TIGERS.

Once upon a time a pair of tigers lived in a jungle with their two cubs and every day the two tigers used to go out hunting deer and other animals that they might bring home food for the cubs. Near the jungle lived a jackal, and he found it very hard to get enough to live upon; however, one day he came upon the tiger's den when the father and mother tiger were out hunting, and there he saw the two tiger cubs with a large piece of venison which their parents had brought them. Then the jackal put on a swaggering air and began te abuse the tiger cubs for having so much venison, saying: "I am the sipāhi of the Rājā and the Rājā has demanded venison and none can be found, while low people like you have a fine piece like this: give it at once or I will take it and report against you to the Rājā." Then the tiger cubs were frightened and gave up the venison and the jackal went off gleefully and ate it. The next day the jackal came again and in the same way took off more meat. The jackal continued taking

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their meal from the tiger cubs every day till the cubs became very thin: the father tiger determined to find out why this was, so he hid himself iu the bushes and watched: he saw the jackal come and take away the meat from the cubs. Then he was very angry and ran after the jackal to kill him and the jackal ran away very fast and the tiger ran after as fast as he could: at last the jackal ran into a cleft between two rocks and the tiger running after him stuck fast between the two rocks and could not come out and so was starved to death. But the jackal being smaller ran out on the other side.

Theu the jackal went back to the tiger's den and told the tigress that her husband had been caught by the Bājā and thrown into prison for interfering with his sipahi. The tigress and her cubs were very unhappy at this news for they thought that they would starve. Then the jackal comforted them and told them not to be afraid as he would stay with them and protect them, and help them with their hunting. So the next day they all four went hunting. They arranged that the jackal should wait at a certain place, while the tigers beat the jungle and drove the game towards him. The jackal had boasted about the amount of game that he could catch and when a herd of deer broke by him he tried to seize one but they easily escaped : then the jackal was ashamed but in order not to be deteched he lay down and pretended that he had been suddenly taken very ill. And when the tigers came up they were sorry for him and forgave him for catching no game. The next day it was arranged that the tigress should be in wait and the jackal and the two young tigers should beat : the tigress soon killed a fine deer. When the others came up the tigers wanted to eat it at once but the jackal would not let them and said that they must go to a little distance while he did puja to make the food wholesome. The tigers obeyed and under pretence of doing puja the jackal ate up all the tit bits and then allowed the tigers to come and eat the rest. This happened daily and the jackal lived in comfort all his days.

(6)-THE WILD BUFFALOES.

There was once a man so poor that he had no land, no plough and no plough cattle : all that he had was a pair of fine goats. This man determined to plough with the goats, so he made a little plough and yoked the goats to it, and with it he ploughed a piece of barren upland. Having ploughed he had no seed paddy to sow; he went to try and borrow some paddy from the neighbours, but they would lend him nothing. Then he went and begged some paddy chaff, and a neighbour readily gave him some. The man took the chaff and sowed it as if it had been seed. Wonderful to relate from this chaff

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grew up the finest crop of paddy that ever was seen. Day by day the man went and watched with joy his paddy grow and ripen. One morning when he went to see it he was horrified to find that in the night wild buffaloes had come and eaten and destroyed the whole crop. Having now no other resource the man determined to follow the wild buffaloes into the jungle : he readily tracked them and came to a large open space where every night the wild buffaloes used to sleep. As it was very dirty he made a broom of twigs and brushed the place clean. At nightfall he heard the buffaloes coming back and he went and hid in a hollow tree. When the buffaloes saw how clean their sleeping place had been made they were very pleased and wondered who had done it. The next morning the buffaloes all went away into the jungle to graze, and the man came out of his bollow tree and again swept up the place: the buffaloes on their return saw that the place had again been swept and decided to leave one of their number to watch and see who did this. They left a buffalo who was lame to watch : when the day got hot however the lame buffalo went to sleep and the man then came out of his tree and swept up the place and hid himself again without being discovered. So the next day the buffaloes left a blind one behind.

The blind buffalo was of very acute hearing and he heard the man come out and sweep the place and return to the tree: so when the other buffalces came back he told them of the man's hiding place. The buffaloes made him come out and arranged that they would provide for him if he would stay with them and sweep their sleeping place daily. The next day the buffaloes lay in wait for a band of merchants who were travelling through the forest and suddenly charging down upon them put the merchants to flight : they fled leaving behind them all their goods and provisions: these the buffalues took on their horns and carried to the man and in this way they from time to time supplied him with all he needed. As he was alone all day they gave him a pair of horns and said that wherever he was if he blew on the horns all the buffaloes in the forest would come to his assistance. But one day when he was bathing he put the horns down on the bank of the stream and crows flew away with them and he did not care to tell the buffaloes that he had lost them.

One day he went to bathe in the river and after bathing he sat and combed his hair on the bank. Now his hair was so long that it reached to his knees. One of his long hairs came out and so he took it and splitting open a *loa* fruit he coiled the hair inside and closed the fruit up and then set it to float down the river. A long way down the stream a Rājā's daughter happened to be bathing and the *loa* fruit floated past her : she caught hold of it and when she opened it she found the

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long hair inside. At once she went to her father and vowed that she would marry no one except the man to whom the long hair belonged. As nothing would alter her determination the Raja sent men up the river to search for the owner of the long hair. One of them found the man at the home of the buffaloes and brought him to the Räjä. He was at once married with great grandeur to the princess and promised the succession to the kingdom. So our hero began to live in great luxury. One day as he was standing in the courtyard of the palace some crows flew overhead and dropped the pair of horns that he had lost. He picked them up and boasted that if he blew on them the whole town would be at once destroyed. The bystanders laughed at him, whereupon he got angry and blew on the horns. Then there was a great noise and an enormous herd of wild buffaloes was seen rushing down to destroy the town. However before they could do any damage he ran out and assured them that he was unhart: at this the buffalces were pacified: then all the straw and grain in the palace was brought out and given to the buffaloes to eat : after eating all they wanted they went back into the jungle; all except one pair which stayed behind in the palace and from this pair are descended all the tame buffaloes which we see to-day.

(7)-THE GRATEFUL COW.

Once upon a time there were two brothers who were very poor and lived only by begging and gleaning. One day at harvest time they went out to glean. On their way they came to a stream with muddy banks and in the mud a cow had stuck fast and was unable to get out. The young brother proposed that they should help it out, but the elder brother objected saying that they might be accused of theft : the younger brother persisted and so they pulled the cow out of the mud. The cow followed them home and shortly afterwards produced a calf. In a few years the cow and her descendants multiplied in a marvellous manner so that the brothers became rich by selling the milk and ghi. They became so rich that the elder brother was able to marry: he lived at home with his wife and the younger brother lived in the jungle grazing the cattle. The elder brother's son used every day to take out his uncle's dinner to the jungle. This was not really necessary for the cow used to supply her master with all sorts of dainties to eat, so the younger brother, when his nephew brought out the rice used to give the boy some of the sweetmeats with which the cow supplied him, but he charged him not to tell his parents about this nor to take any home. But one day the boy hid some of the sweetmeats in his cloth and took them home and showed them to his mother. His mother had never seen such sweetmeats before and

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was convinced that her brother-in-law wished to poison her son. So she took the sweetmeats away and the next day she herself took out the dinner to her brother-in-law and after he had eaten it she said that she would comb his hair and pick out the lice from it; so he put his head on her lap and as she combed his hair in a soothing way he went off to sleep. When he was asleep the woman took out a knife and cut off his head. Then she got up and leaving the head and body lying at the place went home. But the cow had seen what occurred and with her horns she pushed the head along until it joined the neck: whereupon the man immediately came to life again and learned what had happened to him. So he drove off all the cattle to a distant part of the jungle and began to live there.

Every day he milked his large herd of cows and got a great quantity of milk; he asked his friend the cow what he was to do with it and she told him to pour it into a hole in the ground at the foot of a pipal tree Every day he poured the milk into the hole and one day as he was doing so out of the hole came a large snake and thanked him for his kindness in supplying the milk and asked him what reward he would wish to receive in return. Acting on a hint from the cow the man said that he would like to have all the milk back again. Whereupon the snake vomited up all the milk which it had drunk and died on the spot. But the milk mingled with poison fell over the man and imported to his body a glorious and shining appearance, so that he seemed to be made of fire.

After this the man used every day to go and bathe in a river, and each day when he bathed he threw one of his hairs into the water: and his hairs were very long. Lower down the river a princess used to bathe and one day she saw one of the hairs come floating down and vowed that she would marry no one but the owner of the hair. So the father of the princess sent a Brāhman up the river to look for the man with the long hair. The Brāhman was a very thin man with his ribs showing through his skin. After some days he found our hero and was amazed at his shining appearance. He told him that a princess wished to marry him : he was invited to stay some days; he did so living on the milk from the herd of cows and in a short time became very fat. The cow told the man to take a basket and creep into the hole from which the snake had come he did so and at the bottom he found a heap of gold and silver: he filled his basket with this and came back and gave it all to the Brāhman and told him to go home and inform his master that he would come in a few days and marry his daughter. When the Rājā saw the gold and silver and how fat the Brāhman had got he was very pleased to think what a son-in-law he was getting.

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In a few days the cow said that it was time to start and as he had no other conveyance he set out riding on the cow. When they reached the boundary of the Rājā's kingdom the man woke up one morning and found that a great retinue of elephants and horses and $p\bar{a}lk$ and $sip\bar{a}k$ is had appeared during the night. This was owing to the magic of the cow. So the man mounted an elephant and went in state to the Rājā and married his daughter with great coremony. After staying some days he decided to return home and started off with his wife and grand retinue. When they reached the boundary of the kingdom all the elephants and horses and $p\bar{a}lk$ and $sip\bar{a}h$ is vanished into air, and the princess found that she and her husband had nothing but an old cow to ride upon. At this she was very unhappy but she was ashamed to go back to her father, so she went on with her husband and helped to tend the cows in the jungle.

One morning they woke up and found that in the night a grand palace had sprung up fitted with wealth of every kind, this was the last gift of the cow which soon afterwards died. Thus the man became a Rājā and founded a kingdom and he gave a rupee to every one who would come and settle in his kingdom. Many people came and among others his brother and sister-in-law who had fallen into great poverty. When they saw their brother they were afraid and thought that they would be killed, but he forgave them and gave them clothes and land and they all lived happily ever after.

(8)-THE BELBATI PRINCESS.

Once upon a time there were seven brothers the youngest of whom bore the name of Lita. The six elder brothers were all married but Lita refused to marry and when questioned he said that he would not marry any one but the Belbati Princess. His sisters-in-law laughed very much at the idea that he would marry a princess and worried him so much that at length he decided to set out in search of the Belbati princess. So one day he started off and after some time came to a jungle in which was sitting a holy muni. Lita went to him and asked if he knew where he would find the Belbati princess. The muni said that he did not know but that a day's journey farther on was another muni who might be able to tell him. So Lita travelled on for a day and found another muni who was in the midst of performing a three month's spell of fasting and meditation. Lits had to wait till the muni returned to thoughts of this world and then made his enquiry. The muni said that he did not know but that three days' journey farther on was another muni who might be able to help him. So Lita went on and found the third muni who was in the midst of a six months' fast

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When this muni came to himself and heard what Lita wanted he said that he would be very glad to help him. The Belbati princees was at the time imprisoned in the biggest bel fruit growing on a bel tree which was guarded by Rākshasas. If he went and plucked this fruit he would secure the princess, but if he took any but the biggest fruit he would be rained. Lits promised to bear this in mind and then the muni changed him into a biti bird and told him the direction in which to fiv. Lita flew off and soon came to the tree, which was covered with fruit; he was very frightened when he saw the Räkshasas there, so in a great hurry he went and bit off the first fruit that he came to; but this was not the biggest on the tree and the Rākshasas immediately fell upon him and ate him up. The muni, when Lita did not come back, knew that something must have happened to him so he sent a crow to see what was the matter. The crow came back and said that one bel fruit had been picked but that he could not see Lita. Then the muni sent the crow to bring him the droppings of the Rākshasas. The crow did so and from the droppings the muni restored Lits to life. The muni reproved Lits for his failure and told him that if he wished to make a second attempt he must remember his behest to pick only the biggest bel fruit. Lits promised and the muni turned him into a parroquet. In this form Lita again flew to the bel tree and picked the biggest fruit on the tree. When the Rākshasas saw the parrot making off with the fruit they pursued him in fury; but the muni turned the parrot into a fly so small that the Rākshasas could not see it, so they had to give up the chase. When they had departed Lita recovered his own form and went to the muni with the bel fruit and asked what more was to be done in order to find the princess. The muni said that the princess was inside the fruit; that Lita was to take it to a certain well and very gently break it open against the edge of the well. Lita hurried off to the well and in his anxiety to see the princess he knocked the fruit with all his force and split it suddenly in two. The result of this was that the princess burst out of the fruit in such a blaze of light that Lita fell down dead. When the princess saw that her brightness had killed her lover she was very distressed and taking his body on her lap she wept over him. While she was doing so a girl of the Kāmār caste came by and asked what was the matter. The princess said : "My lover is dead, if you will draw water from the well I will revive him by giving him to drink," but the Kāmār girl at once formed a wicked plan. She said that she could not reach the water in the well. Then said the princess : " Do you hold this dead body while I draw the water." "No," said the Kāmār girl, "I see you mean to run away leaving me with the dead body and I shall get into trouble." Then

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said the princess: "If you do not believe me take off my fine clothes and keep them as a pledge." Then the princess let the Kāmār girl take off all her jewellery and her beautiful dress and went to draw water from the well. But the Kāmār girl followed her and as the princess leant over the edge she pushed her in, so that she was drowned. Then the Kāmār girl drew water from the well and went back to Lita and poured some into his mouth, and directly the water touched his lips he came back to life, and as the Kāmār girl had put on the dress and jewellery of the Belbati princess he thought that she was the bride for whom he had sought. So he took her home to his brothers' house and married her.

After a time Lita and his brothers went to hunt in the jungle; it was very hot and Lita grew very thirsty; he found himself near the well at which he had broken the bel fruit and went to it for water. Looking down he saw floating on the water a beautiful flower; he was so pleased with it that he picked it and took it home to his Kāmār wife; but when she saw it she was very displeased and cut it up into pieces and threw the pieces out of the house. Lita was sorry and noticed shortly afterwards that at the place where the pieces of the flower had been thrown a small bel tree was sprouting. He had this planted in his garden and carefully watered. It grew well and after a time it produced ripe fruit. One day Lita ordered his horse and as it was being brought it broke loose and run away into the garden ; as it ran under the bel tree one of the bel fruits fell on to the saddle and stayed there. When the syce caught the horse he saw this and took the fruit home with him. When he went to cut open the fruit he found inside it a beautiful woman : he kept the woman in his house. At this time the Kāmār woman fell ill and was like to die. Lita was very distressed at the thought of losing his Belbati princess. At last the Kāmārin said that she was being bewitched by the girl who was living in the syce's house and that one or other of them must die. Lita at once ordered the girl to be taken into the jungle and killed. Four Ghāsis took her away and put her to death. Her last request to them was that they should cut off her hands and feet and put them at the four sides of her grave. This they did. After the death of the girl the Kāmār wife recovered her health.

After a time Lita again went hunting and at nightfall came to the place where the girl had been put to death. There he found standing a fine palace. He went in but the only living creatures he saw were two birds who seemed to live there; he lay down on a bed and went to sleep. While he slept the birds sat by him and began talking. One told the other the story of the search for the Belbati princess and how the Kāmār girl had thrown her into the well and taken her place. When Lita heard this he awoke and was very unhappy. The birds

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told him that once a year the Belbati princess visited the palace in which he was; her next visit would be in six months. So Lite stayed there and at the end of the six months he hid behind the door to await the princess. She came and as she passed through the door he caught her by the hand, but she wrenched herself away and fled. Lita was very depressed but the birds told him to be more careful the next time. So he waited a year and when the princess was expected he hid himself: the princess came and seeing no one entered the palace and went to sleep. While she slept Lita secured her. They were married and lived happily ever after, and the wicked Kāmār girl was put to death.

(9)-THE BREAD TREE.

There once was a boy who lived with his mother and was engaged all day in tending cattle. Every morning when he started his mother gave him two pieces of bread called "hunger bread" and "stuffing bread," -one to satisfy hunger with and the other to over-eat oneself on. One day the boy could not eat all his bread and he left the piece that remained over on a rock. When he went back the next day he was surprised to see that from the piece of bread a tree had grown which bore loaves of bread instead of fruit. After that the boy no longer took bread from his mother, but lived on the fruit of his tree.

One day he had climbed his tree to pick a loaf when an old woman came by with a bag over her shoulder and saying that she, was very poor begged for a piece of bread. The old woman was really a Rākshasi, The boy was kindhearted and told her that he would throw her down a loaf, but the old woman objected that it would get dirty if it fell on the ground. Then he told her to hold out her cloth and he would throw it into that: but she said that she could not see well enough to catch the loaf : he must come down and give it to her : so the boy came down to give her the loaf and when the Rākshasī had him on the ground. she seized him and put him in her bag and went off with him.

After going some way she came to a pool of water and as she was rather thirsty from carrying such a burden, she put down her beg and went to drink. Opportunely some travellers came by and hearing the boy's shouts let him out of the bag. The boy filled the bag with stones and tied it up as before and made the best of his way home. The old Rākshasī went off with the heavy bag and when she got to her abode told her daughter with whom she lived that she had captured a fine dinner but when the daughter opened the bag she found in it nothing but stones : at this she was very angry and abused her mother :

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then the old woman said that the boy had escaped on the road : so the next day she went back to the place where the boy was tending cattle and by the same trick she caught him and put him in her bag and this time went straight home. She made him over to her daughter and went out to collect fire wood with which to cook him. The boy being left alone with the daughter began to ask how he was to be killed; she said that his head was to be pounded in a Dhenki. He pretended not to understand and asked how that was to be done. The girl not understanding such stupidity put her head under the striker of the Dhenki to show him what would happen. Then the boy at once pounded her head in the Dhenki and killed her: he then put on her clothes and cut her body up in pieces ready for cooking. When the old woman came back with the fire wood she was pleased to find that her daughter, as she thought, had got every thing ready; and the meal was soon cooked and eaten. After the old woman had thus made a hearty meal off the remains of her own daughter she felt sleepy and took a nap. While she slept the boy struck her on the head with a large stone and Rilled her; thus he saved his life and took all the property of the old Rākshasī and lived happily ever after.

(10) - THE ORIGIN OF Sabai GRASS (ISCHEMUM ANGUSTIFOLIUM).

Once upon a time there were six brothers who lived with their sister. The brothers used to spend their days in the jungle hunting while the sister minded the house and cooked the dinner against their return.

One day while the brothers were hunting the girl went to cut herbs to cook with the dinner: as she was doing so she chanced to cut her finger and some drops of blood fell on the herbs, which were put in the pot. When the brothers came home to dinner they noticed how very sweet the food was and asked the reason. The girl said that she was afraid that it must be because some drops of her blood had fallen on it. Then the brothers took counsel together and agreed that if a few drops of her blood were so sweet, she must be very nice to eat. So they agreed to murder her and eat her. But the youngest brother named Lita, though he did not dare to oppose his elders, was sorry for the decision. The next day when the brothers came from the jungle they brought with them a beautiful flower of seven colours and gave it to their sister. She was delighted with it : she had never seen so beautiful a flower before and wanted to know where it grew and whether there were others like it. They said that if she liked to come with them they would take her to the tree on which the flowers grew and she could pick as many as she liked. So the next morning

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she gladly went with them and they took her to the tree with the seven-coloured flowers. She climbed the tree to pick the flowers and when she was up in the tree they shot arrows at her to kill her; but though they shot many arrows they could not kill her. Then they compelled Lita to shoot and he with his first arrow killed his sister.

Then they cut up the body of the girl ready for cooking and sent Lita to a well to fetch water in which to cook the flesh. Lita went to the well and overcome with sorrow sat down and wept. As he wept a large frog came to the surface of the water and asked him what was the matter; he said that he had been made to kill his sister and that now they were going to cook her flesh. The frog told him to be comforted and gave him a large roku fish. Lita took this back and when his brothers told him to cook the food, he hid the pieces of his sister's body and cooked the rohu fish. The brothers ate this thinking that it was their sister. Then they went on into the jungle hunting. After going a short way Lita said that he had forgotten to recover his arrow and that he must go back and fetch it. He went back to the place, and taking his sister's body buried it and building a hut near, spent the days in weeping over the grave. After he had spent some time thus the girl appeared alive out of the ground. Lita was overjoyed and he and his sister remained happily in the jungle.

One day a Rājā hunting in the jungle passed that way and seeing the girl at once fell in love with her and took her away and married her. Lita he also took with him and made him ruler of half the kingdom.

In honour of his marriage the Rājā resolved to construct an enormous tank: and people came from far and near to work at it. Among others came Lita's five elder brothers, who had fallen into great poverty, owing to their wickedness. When their sister saw them she forgave them and sending for them bestowed on them food and clothing. But they were so ashamed and repentent that they could only kneel on the ground and beat the earth with their hands. As they continued to do so the earth opened and swallowed them up: only their hair stuck out of the ground and that became sabai grass, and this was the origin of all the sabai grass which exists.

(11)-THE FAITHLESS SISTER.

Once upon a time there was a man who had a son and daughter: he used to cultivate his land and his son and daughter used to take his dinner to him. One day the man went to plough and while ploughing he stuck the spear which he had brought with him into the 1902.]

ground. As the man ploughed a tiger came and waited an opportunity to spring upon the man: but from whichever side the tiger approached the spear which was stuck in the ground bent its point towards the tiger and so protected its master. Just then the boy and girl came along with their father's dinner. The baffled tiger was hiding in some bushes by the field. As the children went along they saw a paddy bird on the ground. The boy of course had his bow and bird arrows with him and he shot an arrow at the paddy bird : he missed the bird, but it happened that the tiger was just in the line of fire; the arrow pierced the eye of the tiger and killed it instantaneously. When the girl saw the tiger lying dead she said that it was clear that their father had enticed them there in order that the tiger might kill them when they brought him his dinner : clearly the only way for them to save their lives was to leave their home at once. The boy agreed : drawing his arrow from the tiger's head and taking the tiger's eyes with him, he went away with his sister as fast as they could ran. After going some little distance they met in the way two tigers. The boy threw at the tiger the eyes of the first tiger which he had brought with him. The tigers at once fell down dead, but from the body of one proceeded, a hare, and from the body of the other, two dogs which peaceably followed the boy and his sister. Having escaped to a distence they lived in the jungle happily for some time with their three auimal friends. One day the hare said that he would like to have a spear, so the boy went with him to a blacksmith and got a spear made. As they were returning they met in the way a giant Rākshasa who wished to devour them, but the hare holding the spear kept jumping in and out of the giant's mouth with such speed that the Rākshasa was dumbfounded and surrendered at discretion, promising to be a faithful servant to them henceforth. With the help of the Rökshasa they had great success in hunting. The boy with the hars and the two dogs used to beat the jungle and drive the game towards. the Rakshasa who caught it in his month. One day they thus caught a monkey, whose life they spared and who joined their band. The monkey took a large drum and caught in it a nest of wild bees, which he preserved.

One day while the others were away a Rājā who was hunting in the jungle found the girl sitting alone and at once fell in love with her and wanted to marry her. The girl said that she was willing but that she was sure that her brother would never consent. The only thing was to kill her brother and the Rājā could never do that as the faithful animals would protect him. At last the girl consented to try and compass her brother's death. To this end she became very

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melancholy and seemed to pine away: her brother asked what was the matter and she said that she would never recover unless he could fetch her a certain flower which grew in the midst of a certain lake. Now this lake swarmed with gigantic fish and poisonous suakes. But the brother, never daunted, went to the lake and began to swim out to the centre where the flower grew. Before he got half way there one of the gigantic fish swallowed him up. The Rakshasa however saw this and set to work to drink the lake up : he soon drank the lake dry and not only caught the big fish but also was able to gather the flower that had grown in the lake. They then cut open the fish and took the boy unharmed from its belly. The Rakshasa then vomited up the water he had swallowed and filled up the lake again. Meanwhile the Raja thinking that the boy had died, carried off his sister. But the boy setting out with the hare and the dogs and the Rākshasa aud the monkey proceeded to attack the Rājā's capital and recover his sister. The monkey opened his drum and the bees issued forth and attacked the Rājā's army so that it fled. The Rājā had to capitulate and give the boy half his kingdom and his own daughter in marriage. then peace was declared and the animals all disappeared into the jungle and our hero lived happily ever after.

(12)-THE CRUEL SISTERS-IN-LAW.

Once upon a time there lived six brothers who had one sister. The brothers were all married and their wives hated their sister-in law. It happened that the brothers all went away to trade in a far country and her sisters-in-law took the opportunity to illtreat the girl. They said "If you do not obey us and do what we tell you we will kill you." The girl said that she would obey their They said "Then go to the behests to the best of her ability. well and bring this earthen pot back full of water." The khalsi had a large hole in the bottom so that as fast as it was filled the water ran out. The girl took the pot to the well and sitting down began to weep over her fate. As she wept a large frog rose out of the water and asked her what was the matter. She said ' "My last hour has come." If I caunot fill this pot with water I shall be killed and it has a hole in the bottom." The frog said, "Be comforted, I will cure that: I will sit on the hole and stop it up with my body and you will be able to fill it." This it did and the girl took the water back to the house. The sisters-in-law were very angry but could say nothing so they set her another task. They told her to go the jungle and bring home a full bundle of sticks: but she was not to take any rope with which to tie them. The girl collected a large quantity of sticks and

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then sat down and cried because she was unable to carry them home: as she cried a large snake came up and asked what was the matter. The girl told him, whereupon the snake said that he would curl himself round the sticks and serve as a rope. This he did and the girl was able to carry the sticks home on her head. Defeated in this attempt the sisters-in-law the next day told the girl to go to a field of pulse which had been sown the day before and bring back all the grain by the evening. The girl went to the field and picked up a few grains but it had been sown broadcast and the girl soon saw that the task was hopeless: she sat down and cried and as she cried a flock of pigeons flew to her and asked her what was the matter : she said that she could not pick up all the grain in the field. They said that that was easily managed, and the pigeons spreading over the field soon picked up all the grain and put it into the girl's basket, so that by evening she returned with the basket full. The sisters-in-law were more than ever enraged. They gave her a pot and told her that she must go to the jungle and bring it back full of bear's milk. The girl went to the jungle and being very frightened sat down and began to cry: a large she bear came by and asked what was the matter. The girl exclained and the she bear, sorry for her distress willingly allowed herself to be milked without doing the girl any harm. The sisters-inlaw then resolved to make a more direct attempt on the girl's life. They took her into the jungle and told her to climb a certain tree and pick them the fruit. The tree had a tall smooth trunk and the girl had to climb the tree by driving pegs into the trunk. When she reached the branches the sisters-in-law pulled the pegs out of the tree and went home leaving the girl to starve. Night came on and the girl stayed in the tree: it so happened that that day the six brothers were returning home and being benighted stopped to sleep under that very tree. The girl thought that they were dacoits and stayed still. She could not help crying in her despair and a warm tear fell on the face of one the brothers sleeping below and woke him up. He looked up and recognized his sister. The brothers soon rescued her and when they heard of the cruelty of their wives they went home and put them all to death.

(13)-THE FALSE RANI.

Once upon a time a Rājā who had just married was returning with his bride to his kingdom. It was hot weather and a long journey and as they passed through a jungle the Rājā and all his men went down to a stream to drink leaving the bride sitting in her *pālki*. As the bride thus sat all alone she was frightened at seeing a she-bear come up. The bear asked the bride who she was and where she was going.

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When she heard, she thought that she would like to share so agreeable a fate, so by threats she made the Rani get out of her pälki and give her all her fine clothee and jewellery and go away into the jungle. The bear dressing herself in the Rani's clothes, got into the palki, and when the men came back they took up the pälki and went on their way without noticing any change, nor did the Rājā detect the fraud: he took the bear to his palace and installed her as his wife. Meanwhile the real bride had picked up the walking stick of the Raja and a cloth which he had left on the road when he went to the stream, and ran into the jungle. She made her way to the house of a Ghasi woman who lived by the Raja's palace with her daughters. The daughters earned a living by selling flowers and one day one daughter, as she sold the Rājā a garland, told him that his real bride was living in their house. The Rājā was very distressed and at once went to see his bride and was satisfied of her identity when she produced his stick and cloth. The real Rani refused to go to his palace until the she bear had been put to death. Thereupon the Rājā gave instructions to his followers and sent word to the palace that he was dead. The officers and servants at the palace then prepared a big pit and lit a large fire in it: they then sent for the she bear and told her that she must perform the funeral ceremonies of her husband. They made her take off her fine clothes and told her to kneel down by the burning pit and make salaam to it. As she was doing so they pushed her into the pit and she was burned to death. Then the Rájā brought home his real bride in triumph. But from that time bears attack men when they get the chance.

(14)-THE JACKAL AND THE KITE.

Once upon a time a jackal and a kite agreed to join forces and get their food together. In pursuance of their plan they sent word to a prosperous village that a Rajā with his army was marching that way and intended the next day to loot the village. The next morning the jackal took an empty kalsi and marched towards the village drumming on the kalsi with all his might and the kite flew along overhead screaming as loud as he could. The villagers thought that the Rājā's army was approaching and fled into the jungle. The jackal and the kite began to feast on all the good things that had been left in the houses. There was however one old woman who was too infirm to run away with the other inhabitants : and had hid herself inside her house. When she saw that no army came but only a jackal and a kite she crawled away into the jungle and told her friends. They came back, and surrounding the village, caught the jackal : they began

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to beat the jackal with sticks to kill it : the jackal uttered no sound and pretended that it did not mind being beaten : after a time it began to jeer at its captors and told them that they could never kill it by beating. They asked how it could be killed and it said by burning. So they tied a bunch of old cloths on to its tail and poured oil over them and set them on fire : the jackal ran off with the burning bundle at the end of its tail and jumping on to the nearest house set fire to the thatch : the fire spread and the whole village was burnt down The jackal then ran to a tank and jumping into the water extinguished its blazing tail. But if you look you will see that all jackals have aburnt tip to their tail to this day.

(15)-THE SONS OF THE RABAN RIJI.

There was a Rājā who used to bathe daily at a certain tank. In the tank was a great fish : as the Rājā washed his mouth this fish used daily to swallow the rinsings of his mouth. In consequence of this the fish after a time gave birth to two human children. As the two boys grew up they used to go into the village near the tank and play with the other children. One day however, a man beat them and drove them away from the other children jeering at them because they had no father. Much disturbed at this they went to the fish and asked whether it was true that they had no father. The fish told them that their father was the Rāban Rājā. The two boys resolved to go in search of the Rāban Rājā: they set out and after a time met a man and asked him if he knew the Rāban Rājā. The man asked why they wished to know. They said that they were his sons. Then the man at once killed them because the Rāban Rājā was an enemy of his country. From the place where the bodies of the dead boys lay, two large bamboos grew up When the bamboos had grown very big, a Jogi came by that way and cut them down, making from them two flutes. These flutes produced such beautiful music that every one was charmed and the fame of the Jogi spread far and wide: so when in his wanderings the Jogi reached the kingdom of the Rāban Rājā the Rājā sent for him and the Jogi came to the palace with his two bamboo flutes. When the flutes were brought into the presence of the Rājā they burst open and from them appeared the two boys. When the Rājā heard their history he recognized them as his sons, and sent the Jogi away with large rewards.

(16)-THE POTTER'S SON.

Once upon a time there was a Kumhār whose wife was about to have a child. As they were very poor the pair resolved that if the

child should prove to be a boy they would abandon it, but if it were a girl they would bring it up. When the child was born it was found to be a son so the Kumhär took it into the jungle and left it there. There it was found by a tiger and tigress whose cubs had just died and who determined to bring up the man-child as their own. They accordingly fed it and looked after it; the boy grew up strong and healthy. When he got big the tiger went to a blacksmith and had made for him a bow and arrows of iron with which he used to hunt. When the boy became a young man the tiger decided that his marriage must be arranged for. So he went to the capital of a neighbouring Raja, and when the Rājā's daughter came to a tank to bathe the tiger seized her and carried her off into the jungle, where she was married to the Kumhār's son. The princess was very pleased with her new husband bat found the life with the tigers in the jungle very irksome. She constantly begged her husband to run away, until at last he agreed. One day when the tigers were at a distance they started off and soon arrived at the palace of the princess' father. Leaving her husband by the palace tank, the princess went ahead to see how matters stood and to prepare a welcome for her husband. He being left alone decided to bathe in the tank. Now a dhoba was there washing the palace clothes, and seeing a stranger he concluded that it was a thief come to steal the clothes. He accordingly killed him and then in fear threw the body into the water. When the princess returned she was distressed to find no sign of her husband but his iron bow and arrows. Search was made everywhere and the tank was netted but no trace could be discovered of her missing spouse.

Shortly afterwards a Ghāsi girl came to catch chingris in the tank, and while doing so suddenly laid hold of a large fish. In great delight she took it home. When she came to cut it up she found inside the belly of the fish a living child. Pleased with its appearance she decided to adopt it. She put it in a basket and tying the basket under her cloth pretended to be pregnant, and shortly afterwards announced that she had given birth to a child. The boy grew with marvellous rapidity.

Meanwhile the father of the widowed princess insisted that she should marry again. But she was faithful to the memory of her husband and declared that she would only marry the man who could draw the iron bow. Many suitors came but they all failed to draw the bow. At length the reputed son of the Ghāsi woman came and pulling the bow with ease annonneed himself as the true husband of the princess with whom he lived happily ever after.

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(17)-THE WONDERFUL COWHERD.

Once upon a time there was a Rājā who had seven daughters. The seven princesses used to bathe daily in a tank and when they bathed they used to put the scrapings from their bodies in a hole in the ground. From this hole there grew a tree, and the eldest princess announced that she would marry the man who could tell her what had caused the tree to grow; many suitors came and made guesses but none divined the truth; her father was anxious that she should be married, and insisted on every one in the kingdom being questioned. At last a miserable poverty-stricken and sickly cowherd was asked; he had always grazed his cattle on the banks of the tank and had often seen the princesses bathing so he knew from what the tree had spring. The princess being bound by her oath had to marry the miserable cowherd and go and live with him in his hut.

All day long the cowherd used to be groaning in sickness and misery; but at night he used to come out of his skin and appear as a beautiful and shining man; in this form he used to go and play and dance in the moonlight in the court yard of the Rājā's palace. One night the princess's maid-servant saw her master return and creep into his ugly skin; she told her mistress who resolved to keep watch the next night; when she saw her husband assume his shining form and go out of the house leaving his ugly skin lying on the ground, she took the skin and burnt it in the fire. Immediately her husband came rushing back declaring that he was suffering the agonies of burning; but the skin was burnt and the former cowherd retained his glorious and shining appearance; and on the application of oil the pain of the burning ceased. The princess then began to live with pleasure in the company of so glorious a husband, who however only went out of the house at night as his body was too bright for ordinary eyes to look upon.

It began however to be whispered about among the neighbours that a shining being was to be seen at the princess's house and the rumour eventually reached the ears of the Rājā. The Rājā sent a messenger to see who the being was, but when the messenger saw the shining man he was blinded and driven out of his senses and returned to the Rājā in a state of madness. Two or three other messengers successively met the same fate. At length the Rājā resolved to go himself; when he saw the shining form of his son-in-law be fell down in a faint; the princess's husband ran and lifted up the Rājā in his arms and revived him. After this the former cowherd became only bearably bright, and being recognized as the heir to the kingdom went to live with his wife in the Rājā's palace.

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There was once a king who, though he had two wives, had no son. He was very anxious to have a son and heir and went away into the midst of the hills and jungles and there began a course of worship and sacrifices. His prayers were heard and while he was away it was found that both his wives were pregnant. In due time the senior Rāni gave birth to a son and sent a Brāhman to the king with the welcome news. The Brāhman was a very holy man and he had to pray and bathe so often that he made very slow progress on his journey. A day or two later the younger Rāni also gave birth to a son and she sent a low casts Ghāsi to give the news to the Rājā. The Ghāsi travelled straight shead and reached the Rājā some time before the holy Brāhman. On hearing the news that the younger Rāni had given birth to a son the Rājā had at once declared that this boy should be his heir. He was therefore much put out when the Brāhman arrived with the news that the senior Rāni had given birth to a son first.

The Rājā returned home and entering the palace saw the senior Rānī sleeping with her babe beside her. The boy had sore eyes and the Rājā, declaring that the child bore no resemblance to himself said that it was not his son and that the Rānī had been unfaithful to him.

The Rani indignantly denied the accusation and said that if the two brothers fought her son would prove his parentage. Accordingly the two boys were set to wrestle with each other. The struggle was an even one. As they swayed to and fro it happened that the elder boy caught hold of the Raja and pulled him to the ground. This incensed the Rājā more than ever and he ordered the senior Rāni to leave the kingdom with her child. . On the road by which they had to pass the Raja stationed a mast elephant in order that they might be killed, but when in due course the elephant attacked them the boy caught hold of it and threw it to a distance of four kos. After this feat the prince and his mother journeyed to another kingdom. There they took up their quarters near the ground where the Rājā's palwāns wrestled. The prince went to wrestle with them and easily overcame the most renowned palwans. In many ways he showed his strength. One day he went to a mahājan's shop and the mahājan instead of serving him promptly kept him waiting. In indignation the boy took up the entire building and threw it to a distance; hearing of these feats the Raja of the country sent for him and took him into his service; but here also he caused trouble. He insisted on being treated with deference. Going up to the highest officials he would tell them not to twist their monstaches at him, and knock them down. On the throne in the palace when the Raja was absent a pair of the Baja's shoes was

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gi ett placed and every one who passed by had to salaam to these. This our hero flatly refused to do. In fact he became such a nuisance that he was promised that he would be given his pay regularly if he would only stay away from the palace. After this he spent his days in idleness and by night he used to go to the shore and disport himself in the sea.

One night the godess Kālī came to the Rājā's palace and knocked at the gate: but no one would come to open it. Just then the prince came back from bathing in the sea. Seeing him, Kālī Mā, said that she was so hungry that she must eat him, though she had intended to eat the people in the palace. She, however, promised him that though eaten he should be born again. The boy agreed to form a meal for the godess on these terms and was accordingly eaten. Afterwards gaining admission to the palace Kālī Mā ate up everyone in it except he Rājā's daughter. Then our hero was born again and marrying the Rājā's daughter succeeded to the kingdom, and lived happily ever after.

(19)-THE PRINCE WHO BECAME KING OF THE JACKALS.

Once upon a time there lived a Rājā whose son formed a great friendship with a barber. For some reason the Rājā quarrelled with his son and ordered him to leave the kingdom. Accordingly the prince departed to a far country in company with his friend, the barber. In order to earn a living the barber opened a school and the prince took service with a mahājan. They were in such straits that the prince had to submit to very hard terms, it was arranged that his wages were to be one leaf-plate full of rice a day: and that if he threw up the service he was to lose a piece of his skin a span long. After a short time the prince who had been brought up in luxury found the work so hard and the food so scanty that he resolved to leave the mahājan: but before he went he had to submit to a piece of skin being cut off, in terms of the agreement. The prince then went to the barber and told him how ill he had fared. The barber vowed that he should be avenged. So he went and offered himself as a servant to the mahājan: he was engaged and it was agreed that whichever party first proposed to terminate the contract should lose a piece of skin a span long. The barber worked so badly and ate so much that one day the mahājan in a fit of rage ordered him to leave the place and in consequence forfeited a piece of his skin.

Having repaid the mahājan in his own coin the prince and the barber left those parts and journeyed to the land of the king of the jackals. They found the king of the jackals asleep in front of his

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cave. While he still slept the barber shaved all the hair off his tail. Then the two friends hid in the cave, drawing a cart in front of the entrance. When the jackal awoke and found that he had been shaved he concluded that there were bongas (spirite) about, and ran away in terror. After going a short distance he met a bear who asked where he was going in such a hurry. The king of the jackals said that some bongas had taken possession of his cave and shaved off his hair. The bear agreed to go back with the jackal and see if he could exorcise the spirits. Going to the cave the bear climbed on to the cart to offer a sacrifice. As he sat there the barber caught hold of his tail and held on to it while the prince began to stab the bear with a knife. The bear howled and groaned but could not get away. The king of the jackals who was looking on was delighted, for he concluded that the bongas had taken possession of the bear who would learn who they were and how they were to be exorcised. At last the bear broke free and ran away: the jackal ran after him and asked him what the bongas had told him: but the bear only said 'ugh' 'ugh' and ran into the jungle. Then the jackal met a tiger and telling his story persuaded the tiger also to try his hand at exorcising the spirits. The tiger was treated in the same way as the bear had been and ran of without giving the jackal any information.

Then the king of the jackals resolved to try himself and mounted on to the cart. But the barber stabbed him through the banboos and killed him. Then the prince succeeded to the kingdom of the jackals, and not only so, but replaced the piece of skin which he had forfeited to the mahājan by a piece of the skin of the dead jackal.

(20)-THE MONGOOSE BOY.

Once upon a time there was a Rājā who had seven wives but no children. In hope of issue he retired to the jungle and began a course of prayers and sacrifices. While he was so engaged a Brāhman came to him and told him to take a stick and with it knock down seven mangoes from a neighbouring tree, and catch them before they reached the ground : he promised that if the Rānīs ate these mangoes they would bear children. The Rājā did as he was directed and took the mangoes home and gave one to each of his wives,

The youngest Rāni happened at the time to be sweeping out a room and so she put her mango in a niche in the wall. Just then a neighbour sent a mongoose, who was her servant, to ask for a light. While the Rāni was fetching a firebrand from the hearth the mongoose saw the mango and climbing up nibbled part of it without being seen. After this the Rāni ate the mango. In due time the seven Rānis

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each gave birth to a son: but the son of the youngest Rāni was the most beautiful with a face like a mongoose. The eldest Rāni was jealous of the beauty of the youngest Rāni's son so one day she sent the youngest Rāni to fetch some water: and during her absence took up the mongoose boy and putting a stone and a broom in its place took the child away and buried it in the pit from which the potters dig their earth. When the Rājā heard that his youngest wife had given birth to nothing but a stone and a broom he was very angry and turned her out of the palace.

Meanwhile a potter had found the mongoose boy still alive and had taken him to his home. There the child grew up and became a strong boy. One day he asked the potter to make him an earthenware horse. On this horse he used to ride about, for directly he mounted it, it was endowed with life. One day the mongoose boy took his earthenware horse to water it at a tank near the palace and there his six brothers saw it and insisted that they also should have earthenware horses to ride. Horses were accordingly made for them but when they mounted, the horses would not budge an inch. Enraged at this the princes complained to their mothers. The Rānis at once suspected the identity of the potter's boy and told their sons to kill him.

So one day when the young princes met him at the tank they killed the mongoose boy and buried his body. At the place where the body was buried there grew up a bamboo of extraordinary size and a bush with sweet and beautiful flowers: many people tried to cut down the big bamboo and to pluck the beautiful flowers but every arm that was raised to do so was restrained by some unseen power. Eventually the news of this portent reached the ears of the Rājā who went to see what was happening. When the Rājā trid to pluck a flower he succeeded at the first attempt. The Rājā then cut down the bamboo and out of it stepped the mongoose boy who told of the illtreatment which he had received at the hands of the six Rānīs and their sons. The Rājā wished him to come to the palace but he insisted that his mother should first be sent for. This was at once done.

Then the Rājā had a wide and deep well dug and announced that a Pajā was to be performed at the opening of the well. To the ceremony came the six Rānīs and their sons. As they all knelt at the edge of the well doing puja the Rājā had them pushed into it, so that they were all drowned. Thus the wicked were punished and the mongoose boy eventually succeeded to his father's kingdom.

(21)-THE PRINCE AND THE TIGRESS.

Once upon a time there was a Rājā who had seven sons. One day

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a tigress came to the palace and asked the Rājā to allow one of his sons to be her servant and look after her cattle. The Rājā consented and ordered his eldest son to go with the tigress. The young man took his axe and bow and arrows and went with the tigress to her cave. When he got there he asked where were the cattle which he was to tend. The tigress pointed out to him all the bears which were roaming in the jungle and said that they were her cattle. By the cave stood a large rock and the tigress told the prince to take his axe and cut it in two. The prince tried, but the rock only turned the edge of his axe and he quite failed to cut it. The tigress being thus satisfied that the prince had no superhuman powers sprang upon him and killed him and devoured his body. Then she went back to the Raja and said that she had too much work to be done, that she wished him to give her a second son. The Rājā agreed, but this prince met the same fate as the first; and in succession, all the sons of the Rājā, except the youngest, went with the tigress and were devoured by her. At last the youngest son went with the tigress: when bidden to cut the rock in two, he easily accomplished the task. Then the tigress knew that she had met her master and ran into her cave. Looking into the cave, the prince saw the bones of his dead brothers. Gathering the bones together, he prayed for fire to burn them, and fire fell from above and burned the bones.

Then he climbed a tree in order to be out of the reach of the tigress, and the tigress came and sat at the foot of the tree so that he could not descend. Then he prayed again and wind arose and wafted him away and set him down by a house where lived an old man and his wife. The tigress followed in pursuit, but the aged couple hid the prince and assured the tigress that he had not been seen; so the tigress returned disappointed. The prince stayed with the old people and worked on their land. One day as he was ploughing, the tigress came and killed one of the bullocks that were drawing the plough. The prince at once ran to the house to fetch his bow and arrow that he might kill the tigress. When he returned, he found that several tigers were sucking the blood of the bullock and with them a wild boar. He shot an arrow which wounded the boar. The boar maddened by the pain turned on the tigers and killed them all; including the tigress which had killed the Rājā's sons.

The prince then being no longer in danger from the tigress returned to his father's palace.

(22)—THE CUNNING POTTER.

Once upon a time there lived at the gate of a Rājā's palace a

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Potter who had a pretty wife. The Rājā fell in love with the Potter's wife and schemed to get rid of the husband. He could not bring himself to commit a cold blooded murder, but he tried to accomplish his object indirectly by setting the Potter impossible tasks which he was to accomplish on pain of death. The Rājā accordingly sent for the Potter and ordered him to bring him the heads of twenty-four jackals.

The Potter went away to the jungle and began to dig a large hole in the side of a hill. A jackal presently came by and stopped to ask why he was digging the hole. The Potter said that it was going to rain fire from heaven, and that every one who had not such a shelter would be burnt. At this the jackal became very frightened; the Potter thereupon said that he was so sorry for them that he would allow the jackal and his friends to share the hole which he was digging. The jackal gratefully ran away and returned with a number of other jackals. They all went into the hole and the Potter closed the entrance. After a time the Potter looked out and said that the fire was over; he then stationed himself at the mouth of the hole and as the jackals came out he cut off their heads with a knife; in this away he beheaded twenty-three jackals; but the last jackal saw what was happening and dodged the knife and escaped. The Potter took the twenty-three heads to the Rājā; but the Rājā pretended to be angry and said that if the Potter did not at once procure a twenty-fourth head, he would be beheaded himself. The Potter took a pot of gur and went to a pool of water which lay in the direction in which the twenty-fourth jackal had fied. Smearing his body all over with gur, he lay down by the water and pretended to be dead. Presently the jackal which had escaped passed that way with a friend. Seeing the body the second jackal proposed at once to go and eat it; but the first jackal warned the other that there was probably some plot and related how twenty-three of his friends had lost their lives at the hands of this very Potter. But the second jackal would not listen to advice and going to the supposed corpse smelt it and then began to lick it; finding the taste of the *aur* very pleasant it set to work to lick the body all over beginning at the feet; it licked the feet and then the legs, when it reached his waist it was within reach of his hand and the Potter stabbed it with his knife and took the head to the Rājā.

Foiled in this design, the Rājā next ordered the Potter to bring him a jar of tiger's milk. Taking some loaves of bread, the Potter went into the jungle and soon found a cave in which was a pair of tiger cubs whose parents were away hunting. The Potter told the cubs that he was their uncle and gave them the bread to eat; they liked the taste of the bread very much. Then the Potter hid himself in a tree near the cave. Presently the tigress came back but her cubs refused to suck her milk as usual, the tigress asked the reason of this and the cubs said that their uncle had come and fed them with something nicer than milk and they were no longer hungry. They then pointed out the Potter in the tree and the tigress wanted to know what he had given her cubs to eat. He told her that it was bread : the tigress said that she would like to try some herself, whereupon the potter replied that he would give her some if she would first give him some of her milk. The tigress agreed and also consented that her legs should be tied while she was being milked in order that she might not be able to harm the Potter. The tigress having been milked, the Potter gave her a loaf of bread and then ran away as fast as he could.

Finding that he would not be able to get rid of the Potter by any such devices, the Rājā then persuaded the faitbless wife to put the Potter to death. She accordingly set up an idol in her house and prayed daily to this that her husband might become blind and die. One day the Potter overheard her prayers: the next day he hid behind the idol and when the woman came and prayed he answered from behind the idol that her prayer was granted and that in two days her husband would become blind. Accordingly, two days later the Potter pretended to become blind. Then the woman sent word to the Rājā that her husband was blind and that they had nothing to fear from him. The Rājā accordingly came one night to visit the woman. and the Potter killed them both with an axe. He buried the body of his wife, but he was in great trouble as to how to dispose of the body of the Rājā: for he knew that there would be a hue and cry when the disappearance of the Rājā was discovered. At last he decided to put the body in a field of brinjals belonging to a neighbour. Towards morning, the owner of the field came to see that his property was all right, and seeing some one among the brinjals, thought that it was a thief. He accordingly hit the supposed thief on the head; and when he came to examine the body, he was shocked to find that he had, as he thought, killed the Rājā. In great distress he went to consult his friend, the Potter; the Potter advised him to put the body among the buffaloes belonging to a Goālā. At dawn the Goālā came to look at his buffaloes and seeing the body of the Rājā thought that it was a thief stealing the milk of the buffaloes : catching up a club, he inflicted a blow which caused the body to fall over. When the Goālā, found that the body was that of the Rājā and that he had apparently killed him, he was in great fear and went to his friend, the Potter, for advice. It was finally decided to dispose of the body by putting it down a well. The next day great search was made for the missing

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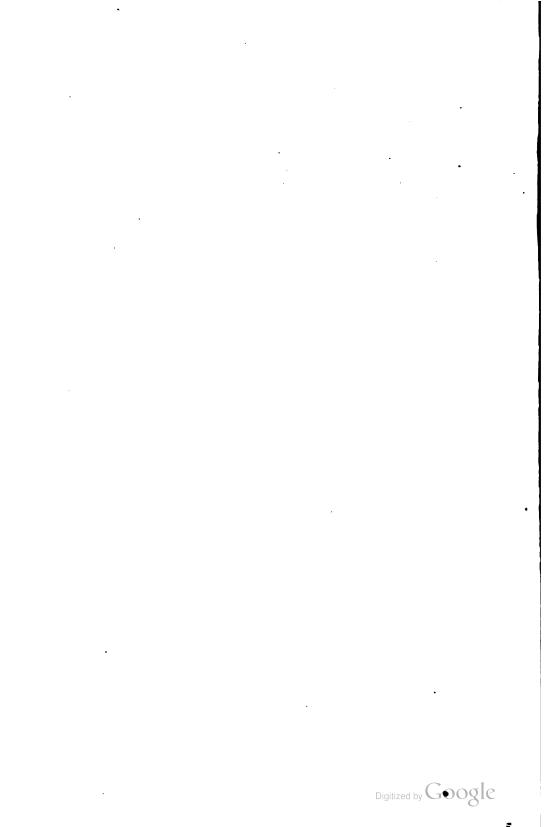
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Rājā and the body was found in the well by a Brāhman. Preparations were made for the obsequies and a funeral pyre erected. The Potter saw his opportunity and digging a hole in the ground under the pyre hid himself in it. When the body had been cremated and the mourners were still collected at the spot, the Potter began to speak from the hole in which he was concealed: the bystanders thought that they heard the voice of the Rājā declaring that the Potter had always been his true friend and that he desired that he should be given half the kingdom and the hand of his daughter in marriage. The supposed wishes of the late Rājā were obeyed and the Potter lived in luxury for the rest of his life.



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