

PROCEEDINGS
OF THE
ASIATIC SOCIETY OF BENGAL.

EDITED BY

THE HONORARY SECRETARY.



JANUARY TO DECEMBER,
1903.



CALCUTTA:

PRINTED AT THE BAPTIST MISSION PRESS

AND PUBLISHED BY THE

ASIATIC SOCIETY, 57, PARK STREET.

1904.

THE NEW YORK
PUBLIC LIBRARY
ASTOR, LENOX AND
TILDEN FOUNDATIONS.
R 1909 L

CONTENTS.

	<i>Pages.</i>
Proceedings for January and February, 1903 (including Annual Report) ...	1-50
Ditto „ March, 1903	51-62
Ditto „ April „	63-90
Ditto „ May „	91-96
Ditto „ June „	97-104
Ditto „ July „	105-114
Ditto „ August „	115-120
Ditto „ November „	121-130
Ditto „ December „	131-137
List of Members of the Asiatic Society on the 31st Decem- ber, 1902 (Appendix to the Proceedings for February, 1903)... ..	i-xiv
Abstract Statement of Receipts and Disbursements of the Asiatic Society for the year 1902 (Appendix to the Proceedings for February, 1903)	xv-xxiii

PROCEEDINGS
OF THE
ASIATIC SOCIETY OF BENGAL.
FOR JANUARY & FEBRUARY, 1903.

The Annual Meeting of the Society was held on Wednesday, the 4th February, 1903, at 9 P.M.

THE HON. MR. C. W. BOLTON, C.S.I., I.C.S., President, in the chair.

The following members were present:—

Mr. J. Bathgate, The Hon. Mr. J. A. Bourdillon, C.S.I., Mr. P. J. Brühl, Mr. I. H. Burkill, Mr. J. N. Das Gupta, Mr. F. Doxey, Mr. E. A. Gait, Lt.-Col. G. W. A. Harris, I.M.S., Mr. H. H. Hayden, Mr. D. Hooper, Dr. Wm. Roy Macdonald, Dr. H. H. Mann, Mr. W. H. Miles, Mr. L. Morshead, The Hon. Dr. Asutosh Mukhopadhyaya, Mr. R. D. Oldham, Mr. H. W. Peal, Captain L. Rogers, I.M.S., Dr. E. D. Ross, Rai Ram Brahma Sanyal Bahadur, Pandit Jogesh Chandra Shastree, Dr. C. Schulten, Mahamahopadhyaya Haraprasad Shastri, Pandit Satis Chandra Vidyabhushan, Mr. C. R. Wilson.

Visitors:—Mr. M. Churchill-Shaun, Mr. E. C. Cotes, Mr. B. A. Gupta, Mr. F. J. Norman, Rai Sahib Jaimat Rai, Mr. Tokiwo Yokoi.

According to the Rules of the Society, the President ordered the voting papers to be distributed for the election of officers and members of Council for 1903, and appointed Mr. D. Hooper and Dr. H. H. Mann to be Scrutineers.

The President then called upon the Secretary to read the Annual Report.

ANNUAL REPORT FOR 1902.

The Council of the Society have the honour to submit the following Report on the state of the Society's affairs during the year ending 31st December, 1902.

Member List.

There is a steady increase in the list of Ordinary Members.

During the year under review 32 Ordinary Members have been elected and we have lost 26, namely, 14 by withdrawal, 8 by death, 1 by removal under Rule 9, and 3 by removal under Rule 40. The total number of members at the close of 1902 was 334, against 328 for the preceding year: of these 126 were Residents, 126 Non-Residents, 14 Foreign Members, 21 Life Members, 46 Absent from India, and one a Special Non-Subscribing Member, as will be seen from the following table, which also shows the fluctuations in the numbers of Ordinary Members during the past six years:—

YEAR.	PAYING.				NON-PAYING.				GRAND TOTAL.
	Resident.	Non-Resident.	Foreign.	Total.	Life.	Absent.	Special Non-Subscribing.	Total.	
1897	106	115	9	230	22	35	1	58	288
1898	122	108	11	241	23	35	1	59	300
1899	120	119	13	252	21	27	1	49	301
1900	116	124	18	258	22	30	1	53	311
1901	123	133	13	269	22	36	1	59	328
1902	126	126	14	266	21	46	1	68	334

We have to deplore the death of the following Ordinary Members: Mr. John Cockburn, The Hon'ble Sir Griffith Evans, K.C.I.E., General J. E. Gastrell (Life Member), Captain A. F. McArdle, I.M.S., Babu Karttik Chandra Mitra, Mr. E. E. Oliver, M.I.C.E., Mr. V. R. Painsay, and The Hon'ble Sir John Woodburn, K.C.S.I.

There was one death amongst the Honorary Members, *viz.*, Dr. Albrecht Weber. During the year, on the recommendation of the Council, Monsieur R. Zeiller was elected as an Honorary Member in the

place of Dr. Weber. Thus the number of Honorary Members stands at 26.

One Associate Member has been elected during the year, namely, the Revd. A. H. Francke. The number stands at 13.

The lists of Special Honorary Centenary Members and Corresponding Members continue unaltered from last year, the numbers standing at 4 and 1 respectively.

No members compounded for their subscription during the year.

Indian Museum.

There was only one change amongst the Trustees, caused by the resignation of Mr. W. K. Dods, and the Hon'ble Mr. J. A. Bourdillon, C.S.I., has been appointed to fill the vacant place. The other Trustees who represent the Society are Mr. A. Pedler, F.R.S., Dr. Mahendralal Sircar, C.I.E., Mr. G. W. K uchler, M.A., and Mr. T. H. Holland, F.G.S.

Finance.

The Appendix contains the usual Classified Statements showing the accounts of the Asiatic Society.

Under Statement No. 1 will be found the account of receipts and disbursements of the Asiatic Society during the year 1902.

Statement, Nos. 2 and 3 show how the money administered through the Society in the Oriental Publication and Sanskrit Manuscript Funds has been spent during the past year. A fixed allowance of Rs. 750 per month is given by the Government of India to the Oriental Publication Fund and a yearly sum of Rs. 3,200 is paid by the same authority to the credit of the Sanskrit Manuscript Fund.

Statement No. 4 gives an account of monies due by and to the members of this Society.

In Statement No. 5 an account is given of the sums invested in Government Securities and held in deposit by the Bank of Bengal.

Statement No. 6 shows the sum invested in Government Security known as the Trust Fund, the interest of which is applied to the payment of pensions to old servants of the Society.

The cash receipts and expenditure of the Society as well as those of the different funds are summed up in Statement No. 7.

Statement No. 8 exhibits the balance sheet of the different Statements.

The Budget Estimate for 1902 was taken at the following figures : Receipts Rs. 18,375, Expenditure Rs. 18,011-4-0 (Ordinary Rs. 16,911-4-0, Extraordinary Rs. 1,100-0-0).

Taking into account only the ordinary items of receipts and expen-

diture for the year 1902, the actual results have been: Receipts Rs. 27,727-6-0, Expenditure Rs. 13,529-4-0.

The Receipts thus show an increase of Rs. 8,352-6-0, while the Expenditure shows a saving of Rs. 3,382 on the Budget Estimate, leaving a balance in favour of the Society, on its ordinary working, of Rs. 14,198-2-0. In addition to this, a sum of Rs. 1,000 has been added to the Reserve Fund on account of entrance fees paid during the year.

There is an increase in Receipts under the heads of "Subscriptions," "Interest on Investments," "Government Allowances," and "Miscellaneous." Subscriptions were estimated at Rs. 7,500, while the actuals were Rs. 7,689-5-0, the excess being due to some of the arrear subscriptions from members having been realized. During the year Temporary Investments were made and there is thus an increase of Rs. 345-8-0 under the head of "Interest on Investments." Owing to a grant of Rs. 8,750 from the Government of the Straits Settlements for the purpose of defraying the cost of publication of Sir George King's Materials for a Flora of the Malayan Peninsula "Government Allowances" show an increase. There is an increase of Rs. 205-1-0 under the head "Miscellaneous." This is due to an advance recovered from the Baptist Mission Press.

The falling-off in the Receipts under the head "Sale of Publications" is due to Messrs. Luzac and Co. not having submitted their Statement of Sales during 1902.

Our expenses have been well within the sanctioned Budget Estimate except in respect of "Contingencies" and "Books." Owing to the payment of Rs. 96 to Messrs. Mackintosh, Burn and Co. for their report on the valuation of the Society's house and site and Rs. 106-10-0 spent in repairing bookcases, there is an increase of Rs. 174-14-8 under the head "Contingencies." "Books" were estimated at Rs. 2,000, whilst the expenditure has been Rs. 2,755-8-8. This is due to the adjustment of Messrs. Luzac and Co.'s account to end of March 1902. There is a very slight increase under the head "Freight."

Owing to the death of our late Collecting Sircar, there is an expenditure of Rs. 4 only under the head "Pension." During the year no payments have been made to the Oriental Gas Co. for lighting. Certain bills were returned to them, as the amounts seemed to be unusually high. The bills have not been re-submitted for payment.

There were three Extraordinary items of expenditure during 1902 under the heads of "Royal Society's Catalogue," "Max Müller Memorial Fund," and "Furniture" not provided for in the Budget. The expenditure on the Royal Society's Catalogue has been Rs. 1,037-10-0, while the receipts under this head received as subscriptions on account of the Central Bureau has been Rs. 510. Rupees 38-6-0 has been spent on account

of the Max Müller Memorial Fund, and a sum of Rs. 60 has been paid to Messrs. Johnston and Hoffmann for preparing an enlarged photograph of the late Mr. E. Blyth for the Society.

There has been an expenditure of Rs. 1,150 under the head "Library Catalogue." Out of Rs. 1,100 budgetted for the Society's Library Catalogue, Rs. 800 has been paid to Mr. H. B. Perie in full settlement of the compiler's remuneration, the remainder has been paid to the assistant who is revising the Catalogue.

The Budget Estimate of probable Ordinary Receipts and Expenditure for 1903 has been fixed as follows: Receipts Rs. 18,500, Expenditure Rs. 16,949-4-0.

On the Receipts side the estimated income under the head "Interest on Investments" has been increased by Rs. 100 on account of the interest on Temporary Investments. "Rent of Rooms" shows an increase. This is due to the Photographic Society of India being charged an increased rent of Rs. 25 per month.

"Sale of Publications" has been reduced by Rs. 100, taking into account the sale of last year.

On the Expenditure side, the changes in last year's estimate are small. "Lighting" has been increased by Rs. 40 to meet gas bills unpaid last year. During last year the servants of the Society have been supplied with cold weather uniforms and to meet this bill an extra sum of Rs. 100 has been budgetted for under the head "Contingencies."

The item of "Postage" has been reduced by Rs. 50, as the expenditure of last year has been smaller than usual.

There will, however, be three Extraordinary items of expenditure to be dealt with during the year 1903. Rupees 1,000 has been budgetted for under the head "Library Catalogue." This includes the pay of the assistant who is revising the Library Catalogue and other expenses that may be incurred in connection therewith. It is contemplated to fit the Society's rooms with electric lights and fans at an approximate cost of Rs. 2,500. As the Council propose to purchase a considerable number of new books for the Society's library, a sum of Rs. 2,000 has been allotted for the purpose in addition to Rs. 2,000 budgetted for under the head "Books." During the past two years comparatively few new books have been purchased for the Library.

BUDGET ESTIMATE FOR 1903.

Receipts.

	1902.			1902.			1903.		
	Estimate.			Actuals.			Estimate.		
	Rs.	As.	P.	Rs.	As.	P.	Rs.	As.	P.
Subscriptions ...	7,500	0	0	7,689	5	0	7,500	0	0
Sale of Publications ...	700	0	0	562	8	0	600	0	0
Interest on Investments ...	5,700	0	0	6,045	8	0	5,800	0	0
Rent of Rooms ...	1,375	0	0	1,375	0	0	1,500	0	0
Government Allowances ...	3,000	0	0	11,750	0	0	3,000	0	0
Miscellaneous ...	100	0	0	305	1	0	100	0	0
Total ...	18,375	0	0	27,727	6	0	18,500	0	0

Expenditure.

	1902.			1902.			1903.		
	Estimate.			Actuals.			Estimate.		
	Rs.	As.	P.	Rs.	As.	P.	Rs.	As.	P.
Salaries ...	3,800	0	0	3,711	6	3	3,800	0	0
Commission ...	425	0	0	420	5	5	425	0	0
Pension ...	52	0	0	4	0	0	.....	
Stationery ...	120	0	0	119	1	0	120	0	0
Lighting ...	60	0	0	.....			100	0	0
Municipal Taxes ...	884	4	0	884	4	0	884	4	0
Postage ...	550	0	0	450	11	3	500	0	0
Freight ...	60	0	0	60	6	8	60	0	0
Meetings ...	80	0	0	75	0	0	80	0	0
Contingencies ...	300	0	0	474	14	8	400	0	0
Books ...	2,000	0	0	2,755	8	8	2,000	0	0
Binding ...	750	0	0	608	12	0	750	0	0
Journal, Part I ...	2,100	0	0	1,023	5	6	2,100	0	0
" " II ...	2,100	0	0	964	1	3	2,100	0	0
" " III ...	2,000	0	0	514	13	1	2,000	0	0
Proceedings ...	600	0	0	492	4	6	600	0	0
Printing circulars, &c.	200	0	0	172	5	6	200	0	0
Registration Fee ...	5	0	0	5	0	0	5	0	0
Auditors' Fee ...	100	0	0	100	0	0	100	0	0
Petty Repairs ...	100	0	0	68	0	3	100	0	0
Insurance ...	625	0	0	625	0	0	625	0	0
Total ...	16,911	4	0	13,529	4	0	16,949	4	0

Extraordinary Expenditure.

	1902.			1902.			1903.		
	Estimate.			Actuals.			Estimate.		
	Rs.	As.	P.	Rs.	As.	P.	Rs.	As.	P.
Library Catalogue ...	1,100	0	0	1,150	0	0	1,000	0	0
Royal Society's Catalogue			1,037	10	0	.....	
Max Müller Memorial Fund			38	6	0	.....	
Furniture			60			.....	
Electric Lights and Fans			2,500	0	0
Books			2,000	0	0
Total			5,500	0	0

Agencies.

Our London Agency is still in the hands of Messrs. Luzac and Co. They have submitted Statement of sales during 1901 and Statement of goods supplied to end of March 1902. £76-8-10, due to them up to the end of March 1902, has been remitted. The value of the publications sent to them during the year amounts to £83-6-6, representing 667 pieces of the *Journal and Proceedings* and Rs. 481, representing 1,005 components of the *Bibliotheca Indica*. From them we have received books and papers of the value of £18-6-9.

Our Continental Agent is Mr. Otto Harrassowitz, to whom we have sent publications valued at £26-8-0 and Rs. 601-12-0, of which £4-6-5 and Rs. 196-7-0 worth have been sold for us. The balance of £54-17-2, due to him to end of June 1902, has been remitted.

Library.

The total number of volumes or parts of volumes added to the Library during the year was 2,955, of which 897 were purchased and 2,058 presented or received in exchange for the Society's publications.

As recommended by Council certain periodicals purchased for the Society's Library were discontinued.

On the recommendation of the Library Catalogue Sub-Committee, the new edition of the Society's Library Catalogue, compiled by Mr. H. B. Perie, is being remodelled under the supervision of the General Secretary and it is hoped that the manuscript will be sent to press early this year.

International Catalogue of Scientific Literature.

During the year 1902, the work of the Catalogue, the preparation of the Index-slips or cards as required by the International Catalogue Committee has been steadily increasing. Nineteen batches, making a total of 905 slips, were sent to the Director of the Catalogue.

The first copies of the Catalogue, the parts for Chemistry and

Botany, were received during the latter end of September. Of these 73 copies were distributed to subscribers and 6 copies were presented at the request of the Director to the Editors of Indian Journals for review.

Subscriptions have been received and sent to the Director from the Government of Burma and the Kashmir Museum.

The Government of United Provinces of Agra and Oudh have advised the remittance of their subscription, and the Political Agent, Central India, of a part of his subscription direct to London.

Max Müller Memorial Fund.

The list for subscriptions to the Max Müller Memorial Fund is still open. Rupees 716 has been received, which amount, after deducting sundry expenses, will be remitted.

Proposed Re-organization of the Society.

In last year's report it was stated that the final consideration of the proposed alterations in the status of the Society was postponed, pending a further report from the Committee. A Meeting was called of the remaining Members of the Committee appointed to consider the proposed re-organization of the Society, but there was no quorum. The Council resolved that the question of re-organizing the Society and extending its operations should stand over until the finances of the Society had been placed on a more settled basis.

Proposed sale of the Society's premises.

In order to ascertain what sum is likely to be received by the sale of the Society's house and site the Council obtained a report from Messrs. Mackintosh, Burn and Co. on the valuation of the Society's house and site. The report was circulated to the Members of the Sub-Committee and a plan had been lithographed of the premises. The plan with a covering circular was sent to several House Agents, but no reply has been received. The Council have now resolved to abandon the proposal, and it has been decided to fit the Society's rooms with electric lights and fans.

Exchange of Publications.

During the past year the Council accepted four applications for exchange of publications with other Societies, *viz.*: (1) from the Royal Botanic Gardens, Peradeniya, the Society's *Journal*, Part II, for their *Annals*; (2) from the Government of Mysore, Geological Department, the Society's *Journal*, Parts I-III, being exchanged for their publications; (3) from the New York Botanical Garden, the Society's *Journal*, Part II, for their *Bulletin*; (4) from the Académie Malgache de Tana-

narive, the Society's *Journal*, Parts I-III, and *Proceedings* being exchanged for their publications.

Secretaries and Treasurer.

Dr. T. Bloch carried on the duties of Philological Secretary and Editor of the *Journal*, Part I, till June when he was absent on leave and Dr. E. D. Ross took charge of the office.

Mr. F. Finn continued Natural History Secretary and Editor of the *Journal*, Part II, till November when he left India on furlough and Captain L. Rogers, I.M.S., kindly agreed to carry on the work.

Mr. E. A. Gait carried on the duties of the Anthropological Secretary and Editor of the *Journal*, Part III, throughout the year.

Mr. J. Macfarlane carried on the duties of General Secretary and Editor of the *Proceedings* throughout the year.

Mr. W. K. Dods resigned the office of Treasurer in March and Captain A. F. McArdle, I.M.S., was appointed. Captain McArdle continued till his death in October when Mr. C. R. Wilson kindly consented to undertake the work.

Mahamahopadhyaya Haraprasad Shastri was in charge of the *Bibliotheca Indica* and the search for Sanskrit manuscripts and carried on the duties of Joint Philological Secretary throughout the year.

Mr. J. H. Elliott continued Assistant Secretary and Librarian throughout the year.

Publications.

There were published during the year ten numbers of the *Proceedings* (Nos. 10 and 11 of 1901 and Nos. 1-9 of 1902), containing 92 pages of letter-press. Owing to the increase in the number of members the printing of the Society's *Proceedings* was increased to 650 copies for February and 600 copies for other months instead of 575 copies as usual.

Of the *Journal*, Part I, three numbers were published (Extra No. 1 of 1901, and No. 1 and Extra No. 1 of 1902) containing 375 pages of letter-press and 19 plates. The Extra No. 1 of 1901 consists of Dr. A. F. R. Hoernle's report on A Collection of Antiquities from Central Asia, Part II, with 13 facsimile plates issued under separate cover, all of which were paid by the Government of India. The Extra No. 1 of 1902 is Colonel J. Davidson's notes on the Baghali (Kāfir) language and it was printed at the office of the Superintendent of Government Printing, India, free of charge.

Of the *Journal*, Part II, four numbers were published (No. 2 of 1901 and Nos. 1-3 of 1902), containing 208 pages of letter-press and 9 plates. A contribution of Rs. 8,750 was received from the Government of the Straits Settlements for the purpose of defraying the cost of publication

of Sir George King's Materials for a Flora of the Malayan Peninsula. In thanking the Colonial Government, the Council forwarded 30 copies of the Society's *Journal* from 1889-1901 containing the earlier numbers of the Flora and promised the same number of the future issues. The Council further proposed to add to the title-page of the later issues of the *Journal* the following words "Published with the assistance of His Excellency the Governor of the Straits Settlements."

Of the *Journal*, Part III, three numbers were published (No. 2 of 1901 and Nos. 1-2 of 1902) containing 137 pages of letter-press and 7 plates. In connection with the proposed discontinuance of the grant of Rs. 1,000 per year for *Journal*, Part III, from the Assam Administration, the Secretary to the Chief Commissioner of Assam was furnished with a report showing the work done and the necessity for the continuance of the grant subject to a further consideration of the question five years hence. On a note by Mr. E. A. Gait, the Anthropological Secretary, relative to contributions to Part III, of the Society's *Journal*, the Council agreed to have short notes on Anthropological subjects published as a supplement to Part III, of the *Journal* and they further authorised the addition of a similar supplement to other parts of the *Journal*.

Proceedings.

The papers and abstracts published in the *Proceedings* are, some of them at least very interesting. The proceedings serve as a vehicle for the ready circulation of interesting discoveries made by busy men who cannot write long papers for the *Journal* and do not wish to keep back information which might be useful. Babu Manmohan Rāya's paper on the Rajavañcis and Cochs removes a common notion that these are one and the same caste. The writer proves that these castes belong to two distinct races of men; the Rajavañcis are of Mongolian while the Cochs are of Dravidian descent. Babu Satish Chandra Acharya's paper on the Licchavi race of ancient India attempts to prove that even 2,400 years ago Mongolian tribes settling in India passed as Kshatriyas. Mahamahopadhyaya Haraprasad Shastri's paper on the Magi shows that the ancient sacerdotal caste of the Magi in Persia settled in India from time to time and introduced astrology and necromancy in the country and that their descendants are still to be found all over India exercising the profession of astrologer passing as brahmans of an inferior quality. The same writer has another paper on the organization of the caste system in Bengal in the thirteenth century by Ballala Sen belonging to the last Hindu dynasty of Bengal. The Rājā from political reasons degraded the Suvarnavanikas and raised the Kaivarttas in the hierarchy of the caste system.

Journal, Part I.

In the Philological Section of the Society's *Journal* three numbers have been published, covering altogether 357 pages of letter-press; exclusive of four separate plates. Besides these an extra number of Vol. LXX, Part I, has been issued, containing plates illustrating Dr. Hoernle's Report on Central Asian Antiquities.

Materials for another number are ready, but the delays of the printers and the fact that some of the contributors are resident in England, have made it impossible to publish a second number of Part I during 1902. It is a moot question whether it would not be more satisfactory from the points of view both of accuracy and expedition, if articles by home residents, and these include quite half the contributions to the Society's *Journal*, could be printed at home. That is to say: a paper received from England having been sanctioned in Calcutta should be sent back to the author to print, correct, and forward to the Philological Secretary, ready for incorporation with the rest of the number. The most important philological contribution made during the past year was a study of the Bashgali language by Colonel J. Davidson, C.B. Bashgali is one of the many dialects of Kafirstan. These notes consist of altogether 195 pages. The first 66 are devoted to an account of the grammar of this dialect, which present great difficulties, and in many points seems to defy analysis. Following this is a collection of upwards of 1,750 short sentences in English and Bashgali, which not merely form very valuable material for travellers who may be in need of using that language but will also doubtless be of the utmost interest to philologists. In the *Journal* itself we have a most interesting continuation of Dr. Hoernle's report on the British collection of Central Asia. Herein he deals with every aspect of the manuscripts of this remarkable collection. Many of these manuscripts still remain to be deciphered. Dr. Hoernle has, however, by patient research been able to decipher the alphabet of certain documents of which the language yet remains to be identified. The Revd. T. Grahame Bailey, of Wazirabad, furnishes some interesting specimens of the secret vocabulary employed by the Cāhrās, a tribe of professional thieves, who apparently while using ordinary Punjabi introduce private words and slang expressions where there is need for secrecy. Mrs. Francke has contributed a translation of a Tibetan document relating to the history of Ladakh which completes a former series of translations and texts contributed to this *Journal* on the same subject. There were several other papers of interest published during the year.

Journal, Part II.

During the last year four numbers of Part II of the Society's

Journal have been issued containing a number of important and interesting papers, botany, zoology and general subjects being all well represented.

Among the botanical papers are included a further important contribution by Sir George King of Materials for a Flora of the Malayan Peninsula, which carries the work on to the end of the Calycifloræ, eight orders being included and eighteen new species described. Some new species of Orchidæ from North-West and Central India have been described by Mr. J. F. Duthie and a new Indian Dendrobium by Major Prain, I.M.S. An important paper entitled On the Variation of the Flower of *Ranunculus Arvensis* has been contributed by Mr. I. H. Burkill, based on the laborious examination of over 6,000 flowers, curves illustrating the variations of the different parts being worked out, and he finds that the sepals vary least, then the petals, then the carpels, while the stamens vary most; so that the variation of this flower is broadly similar to what is seen in a general view of the whole Phanerogamic Sub-Kingdom.

The Zoological series contain a variety of papers, among which the following may be mentioned: a list of Butterflies of Hong-Kong and Southern China by the late Lionel de Nicéville, the last contribution to science of that hard-working and gifted naturalist and some new species of Hymenoptera, by Major C. G. Nurse. Mr. F. Finn has contributed several interesting papers on variations in Indian Birds, illustrated by five plates, on hybrids between the Guinea Fowl and the Common Fowl and on specimens of two Mauritian Birds. An interesting series of notes on Animals in the Alipore Zoological Gardens have been contributed by the Superintendent of the Garden, Rai R. B. Sanyal Bahadur, including the subjects of Telegony and Melanic species of the Common Palm Squirrel. A paper on A Collection of Birds from Upper Burma, by Lieut. H. Wood and F. Finn, includes a description of two species illustrated by plate which had not previously been found among the Indian fauna, while several very rare birds are in the collection, which has nearly all been presented by Lieut. Wood to the Indian Museum. Major J. Manners-Smith has contributed a paper on Wolf Hybrids in Gilgit. Lastly, Dr. Harold H. Mann has presented an interesting note on the life history of the insect known popularly as the mosquito blight which causes such extensive damage on tea garden, with regard to which he concludes that the whole life history is spent on the tea bushes and not partly on other trees in the jungle close by as previously thought, a very important discovery from the practical point of view.

Among the general papers is an important one entitled Studies in the Chemistry and Physiology of the Tea Leaf, also by Dr. Mann,

in which he shows that the most important agent in producing the flavouring of tea is an enzyme, and that this materially increases during the process of withering, while the largest amount is found in the tip leaves, which make the best tea, and that the amount of phosphates in the soil increases the amount of enzyme and the quality of the tea; all highly important points. Another very interesting paper in this section is one on Tidal periodicity in the Earthquakes of Assam by Mr. R. D. Oldham, Superintendent, Geological Survey of India, in which he considers the effect of the tidal stresses set up by the attraction of the sun on the time of occurrence of earthquakes recorded in Assam since the great one of 1897, and he concludes that there is such a relationship.

Altogether the year has been a good one in this section, both the number and the variety of the papers having maintained a high level.

Journal, Part III.

In all, three numbers of this part of the Journal, containing ten papers, were issued during the year, *viz.* : No. 2 for 1901, and Nos. 1 and 2 for 1902. The first of these numbers contains a paper by Mr. T. H. Holland, F.G.S., on the Coorgs and Yeruvas, in which the affinities of the two tribes are discussed on an anthropometrical basis. Apart from the fact that the Coorgs are shown to differ in a very marked degree from their Dravidian neighbours, this paper contains an interesting discussion on the manner of applying in practice the results obtained from anthropometry.

Amongst other papers may be mentioned Mr. Friend-Pereira's account of the "Marriage Customs of the Khonds," the "Folklore of the Kolhān," by Mr. C. H. Bompas, I C.S., and "Some Notes on the Rājvaṃṣi Caste" by Babu Monmohan Roy. The last mentioned paper offers an explanation of the divergent views that have been expressed regarding the origin of the Rājvaṃṣis of North Bengal and of the Koch and other tribes in their neighbourhood. It appears that the original Rājvaṃṣi was a Dravidian, but that the term has also been assumed by the Mongoloid Koch, and that in some parts the assumption of the name has been accompanied by intermarriage between the two groups. It has recently been arranged to add a supplement to this part of the Journal for the publication of miscellaneous notes on anthropological subjects.

Coins.

16 coins were presented to the Society by the Governments of Bombay, Madras, United Provinces of Agra and Oudh during the year under review. Of these 2 are gold, 12 silver, and 2 copper coins. The

gold coins comprise: a coin of Shri Pratap Harihara (Vijayanagar Dynasty), found in the Ahmednagar collectorate and a half pagoda of Shri Pratap Deva Raya of the first Vijayanagar Dynasty found in the Poona District. The remaining are not of much importance.

The question of the proposed amalgamation of the two collections of coins now held separately by the Indian Museum and the Asiatic Society made by the Hon'ble Mr. J. A. Bourdillon was referred to the Trustees of the Indian Museum. The Trustees have asked the Council the probable purchased price of the collections of coins belonging to the Society and Dr. Bloch has undertaken to make the valuation.

Bibliotheca Indica.

Twenty-five fasciculi were published during the Calendar year 1902; of these two were in the Arabic-Persian, and the rest in the Sanskrit Series. The cost of the year's publication came up to Rs. 6,426-0-6. The average cost of fasciculus being Rs. 257; Rs. 92 in editing-fees and Rs. 165 in printing charges.

Three new works have been commenced: two in the Sanskrit Series and one in the Arabic-Persian.

1. Bodhicaryyavātāratikā by Prajnākanamati. Since the discovery of Buddhism and Buddhist literature in Nepal by Brian Hodgson in the early part of the nineteenth century, Bodhicaryyavātāra by Čāntinātha has engaged the attention of Oriental scholars all over the world. It was described at length by Dr. Rājendralāla Mitra in his Nepalese Buddhist Literature and published by Professor Minaev at St. Petersburg. It is the best handbook of the later Mahāyāna School, written in standard Sanskrit and in an engaging style, but without a commentary it could not be thoroughly studied and properly translated. A search was instituted by Mahāmahopādhyāya Haraprasād Shāstri and his efforts was completely successful by the discovery of a complete copy of Prajnā-kara's Commentary, and another copy of a portion of it, in 1895. In 1898 the same Pandit found a tippana in the Darbar Library, Nepal. Professor La Vallée Poussin of Ghent found a copy of the Tibetan translation of the work in Europe and undertook to bring out an edition of the Text and Commentary filling up the gaps and lacunæ in the commentary from the Tibetan. The first fasciculus of his work was published in 1902.

2. Čatasāhasrikā Prajnāpāramita reported to have been brought up from the Nether world by Nāgārjuna. This too was discovered by Brian Hodgson in Nepal. A Tibetan version of it was published in the *Bibliotheca Indica* by Babu Pratāpa Čandra Ghoṣa. The work is in prose, but, if measured in verses of 32 letters each, its extent will come to

one hundred thousand verses, hence it is called the *Çatasāhasrikā*. It is full of repetitions like many great Buddhist works. After finishing the publication of the Tibetan version, Babu Pratāpa Çandra offered to edit the Sanskrit original and the permission was gladly accorded by the Council. In the very first year the learned editor has pushed the work through four fasciculi.

3. The *Riyazu-s-Salātin*, a history of Bengal, by *Ghulan Husain Salin* is a well-known work written in the eighteenth century at Malda. The English translation of the work has been entrusted to Maulvi Abdus Salan, M.A., Bengal Provincial Service, and he has published one fasciculus during the year under review.

Search for Sanskrit Manuscripts.

The search for manuscripts was conducted by Mahamahopadhyaya Haraprasad Shastri during the year under review. About 200 manuscripts were collected and more than 200 notices of rare manuscripts made in various districts of the Provinces of Bengal. The Shastri undertook three trips to Nadia, one to Burdwan, and one to Puri. His assistants, the travelling Pandits, worked in the districts of Puri and Birbhum, visiting other districts too on occasions. The search in the city of Navadvipa is very nearly complete. Three or four private collections only remain to be examined. The examination resulted in the discovery of about 30 manuscripts which were known only from quotations.

The Report having been read and some copies having been distributed, the President invited the meeting to consider it at their leisure.

The President announced that only one essay had been received in competition for the Elliott Prize for Scientific Research for the year 1902, sent to Mr. Pedler, one of the Trustees, for report, and that the result had not yet been received by the Society.

The President also announced that the Barclay Memorial Medal for the year 1902 had been offered to Major Ronald Ross, F.R.C.S., C.B., C.I.E., F.R.S., I.M.S. (Retired).

The President then addressed the meeting.

ANNUAL ADDRESS, 1902.

GENTLEMEN,

It is not incumbent on your President to deliver an Address on the termination of his first year of office, and, following precedent, I

might have refrained from preparing one on this occasion. I have been loath, however, to meet you this evening without supplementing with some remarks the Annual Report which lies before you, and would ask you to accept these remarks indulgently, as the fullest contribution which official duties have permitted me to make to the proceedings to-night. On reference to some of the Presidential Addresses of the past, I am regretfully conscious of the unfavourable comparison which mine may evoke, but it would have been beyond the power of myself, and of those to whom I could look for assistance, to undertake in the present season a full review of all that has been done not only in India, but elsewhere also, and not only by this Society, but also by other Societies, by *Savants* and by Departments of the Government, in the branches of literature and science with which, by its aims and constitution, our Society is concerned. Such a task must be postponed to a later occasion.

I would, in the first place, speak to you on what I would term homely matters, relating to our building, its internal arrangements, and the improvements which are desirable. The Annual Report alludes to the proposal which has been under consideration for the disposal of our premises. It was hoped by the members with whom the proposal originated that a sufficient sum would be obtained for the acquisition of a site and the erection of a new building, with residential quarters for the Secretary, and that there might even be an adequate balance to provide for a paid Secretaryship. These anticipations have, however, proved too sanguine. No offer has, in fact, been made for the purchase of the premises, and it seems clear that they could not be sold at a price which would justify our parting with them for accommodation elsewhere. The proposal must, therefore, be abandoned. Nor is this, in my opinion, much to be regretted. Our building is old, but it provides us with this spacious hall for our meetings and it admits of improvement. That which has specially suggested itself to me is the raising of the floor of the ground rooms and passage, which now show signs of constant dampness and cannot, for that reason, be fully used. The matter is under enquiry, and I trust that professional opinion will be in favour of the work; and that it may be carried out at moderate cost. An improvement of the drainage outside may simultaneously be effected. The arrangements for the lighting of our rooms and for punkahs should also be brought up-to-date, by the introduction of electric lights and fans, and provision for this change has been made in the Budget for the ensuing year. The gas has now to be supplemented by lamps, which are an inconvenience, and the antiquated hanging punkahs should give place to the more convenient electric fans now in general use. Our Library

demands much attention. The space now available in the almirahs is deficient, two rows of books being found on many of the shelves, and a thorough re-arrangement of the volumes should be effected, after the removal of such as may be dispensed with, and the provision of additional almirahs, for which space would be found in the improved rooms on the groundfloor. We are fortunate in having as our General Secretary, Mr. Macfarlane, the Librarian of the Imperial Library, whose advice and assistance in this matter will be of great advantage to the Council. He has already undertaken the revision of the Catalogue, and will advise as to the purchase of new books, in regard to which too little has been done in recent years. The expenditure to be incurred on this and on the improvements in the building will be well within our financial capacity.

The proposal to modify the status of the Society, which was mentioned in the last Annual Report, has been indefinitely postponed, and may be regarded as abandoned, by a resolution of the Council that it should stand over until the finances of the Society have been placed on a more settled basis. It erred, in my opinion, in seeking to give too scientific a character to the Society, and to alter its name of Asiatic Society, which so well recalls the objects of its foundation and its great achievements in the cause of Oriental research. What the history of the Society has been I would here briefly notice. Founded in 1784, on the initiation of Sir William Jones, it is among the oldest learned Societies of the world. It has published, first, in its volumes of Asiatic Researches, and subsequently in its Journal, innumerable papers of the highest value on the literature, language, history, archæology, and ethnography of India and other Asiatic countries, and on the natural sciences, including astronomy, meteorology, geology, zoology, and botany. It commenced early the formation of a Library and a Museum, giving the lead by more than one generation to the Government in its Natural History collection, including geological specimens. That collection, for many years in charge of the distinguished naturalist Blyth in its zoological section, was eventually made over to the Government in 1866 and converted into the Imperial Museum, now located in the great building in Chowringhee. The Library remains with us, and now consists of over 40,000 volumes, of which about 11,000 are manuscripts. The publication of Oriental works was systematically undertaken by the Society in 1835, and its Bibliotheca Indica Series of publications has since included a very large number of original texts and of translations of the leading works of Brahmanic literature and of works in Arabic and Persian. The conservation of Sanskrit Manuscripts has been another important work of the Society, and both in this and in the Bibliotheca Indica section it has received

liberal pecuniary aid from the Government. The Society has also a large collection of coins of great interest to the numismatist. The transfer of this collection to the Indian Museum has been suggested, but it is a question which will demand thorough consideration. Credit is especially due to the Society for the discovery of keys to the ancient Indian alphabets, for the early investigations in the languages of Ancient India, including Pali, for the light which has been thrown on the history of India and of the adjacent countries on the North-West by the labours of the great numismatists who have been among its members, and for the development of the study of the Indian vernaculars.

This, gentlemen, is the brief record of the Society's work. It is a record on which we may well look with pride, and which the world of learning and of science will acknowledge to be worthy of the aspirations of the distinguished men to whom the Society owes its birth. Have we cause to fear that the Society has not still before it a long career of usefulness on its present basis? I think not. The era of great discoveries in India itself may have passed. No undiscovered Asoka pillars, Buddhist Topes and Buddhist caves, no undeciphered inscriptions and coins of an unknown language and an unknown epoch, and no great unpublished work in the Sanskritic and Semitic classics may remain to win for antiquarians and scholars the reputation of a William Jones, a Horace Hayman Wilson, a James Prinsep, an Alexander Cunningham and a Blochmann, to mention but a few of our distinguished past members, but a large field is yet open for valuable, if minor, work in the exploration of great ruins and historical sites, and in the editing and translating of unpublished works of interest and repute. And discoveries, though not so great as in the past, will doubtless be made in various parts of India. Beyond India, Central Asia and Mongolia, the ancient realm of Jenghis Khan and Tamerlane, now opened by the construction of the great Russian railway, present an immense region for research; and the ruins of Cambodia, notably the ancient city of Angkor, are already engaging the attention of the French Oriental Society of Cochinchina, to whose Congress last December our members were courteously invited. Our Journals have been always open to papers relating to Asiatic countries other than India, and not a few such contributions will be found in their pages.

In archæology, philology, and anthropology, in particular, much remains to be done in India. The conservation of ancient monuments is an organized department of the Government, and Archæological Surveyors are attached to the Provinces. Archæological enquiry is a special duty of these gentlemen, but there is still room for private workers in the

same field, and they should not be discouraged. Their collaboration will be of value, and they may find reasons, from time to time, for differing from the official archæologists. There is always much scope for controversy, and our Journals may be enlivened by rival contributions. They are not wanting in evidence that the antiquarian and the philologist may often be assigned a place in the *genus irritabile* to which the poet is proverbially ascribed. I would specially invite officers employed in land settlements and surveys, as some have, indeed, already done, to notice antiquities, shrines and strange local observances which they may find in the course of their operations. Philology is also receiving much enlightened help from the Government. The deputation of Dr. Grierson to prepare a Linguistic Survey of India gives promise of great development in philological studies. His labours cannot but attract attention to the numerous languages and dialects of India, and enlist the co-operation of many in the same fruitful field for long years to come. We are already indebted to him, and his former co-adjutor, Dr. Hoernle, for much advancement in the knowledge of the Bibari vernaculars. Another important work carried out at the expense of the Government has now been completed, and will, I trust, be soon published—the compilation of a Tibetan-English Dictionary, with Sanskrit Synonyms, by Rai Bahadur Sarat Chandra Das, C.I.E. This work, as distinguished from the Dictionary of Csoma de Körös, which was based on the classical language of Tibet, and that of Jäschke, which has a similar basis and reproduces also largely the language of Western Tibet, claims the merit of dealing specially with the language of the central country and of the modern and current literature, and also of furnishing the Sanskrit equivalent of each Tibetan term—an important contribution towards the exact study of Tibetan literature, which is so largely founded on Sanskrit. In the Sanskrit rendering of the Tibetan valuable help has been given by Pandit Satis Chandra Acharjya Bidyabhusan, one of our promising junior members; and the Rev. Graham Sandberg and the Rev. A. Heyde have also very materially improved the whole work by a thorough revision. Anthropological research has been stimulated in the past by the successive Census operations, and will receive fresh stimulus from the recent Census. We have as Secretary in that section Mr. Gait, the officer to whom the Census was entrusted in Bengal, and the Society may look to much valuable work at his hands. We owe to his suggestion the apparently small, but important, innovation of publishing short notes in our Journals, which the Council have sanctioned. It is hoped that many persons who are in a position to contribute interesting anthropological, philological, and other items of information which, though too small to be published as separate papers,

are well deserving of permanent record, will avail themselves of the facility afforded to them. Such notes, instructive in themselves, will often suggest enquiry, which will add to the store of information on the subjects dealt with. These minor points for discussion will often suggest themselves to students in language and literature, in anthropology and in archæology.

In other branches of science more and more is being done in India under the auspices of the Government or by private individuals, and the Society affords, through the medium of its Journal, a ready means of communicating to the world observations and results which interest the student and the man of business.

Speaking now generally, I would say that a Society which embraces so wide a range of subjects as ours cannot fail to find at all times interesting matter for discussion. New theories in science are constantly presented to the world: some survive to an enduring acceptance; some pass away after a stormy life of controversy; and some perish almost at their birth; but all afford matter for thought, speculation, and discussion. The vicissitudes of scientific ingenuity are humourously alluded to in the following lines of Moore, which I am tempted to quote to you:—

“ In science, too—how many a system, raised
 Like Neva’s icy domes, awhile hath blazed
 With lights of fancy and with forms of pride,
 Then, melting, mingled with the oblivious tide!
 Now earth usurps the centre of the sky,
 Now Newton puts the paltry planet by;
 Now whims revive beneath Descartes’ pen,
 Which now, assailed by Locke’s, expire again.
 And when, perhaps, in pride of ohemic powers,
 We think the keys of Nature’s Kingdom ours,
 Some Davy’s magic touch the dream unsettles
 And turns at once our alkalis to metals.”

I trust, gentlemen, that the remarks which I have offered on our past and future work have sufficed to make it clear that this Society has still before it a life of robust vitality. I would express the hope that our numbers may increase, and that we may count on additions to our list of active members. The Annual Report indicates a steady growth in our Members’ list during the past five years, but the roll falls short of the figures attained in some former years, and we may reasonably look forward to an accession of members. Many may be deterred

by a modest diffidence from entering the portals of a learned Society, but we demand no thesis for admission into our ranks, and we do not expect, although we are always gratified, to receive contributions from our members. In the words of Sir William Jones, we do not require "any other qualification than a love of knowledge and a zeal for the promotion of it;" and that zeal may manifest itself by general support to the Society as well as by active labour on its behalf.

I now pass to a brief notice of our publications and of the papers read at our meetings during the past year. The former include three works in the *Bibliotheca Indica* Series, of which the first is a Commentary on the best handbook of the later Mahāyāna School of Buddhism. A copy of this work, which was greatly needed for the proper translation of the handbook, was discovered by Mahāmahopādhyāya Haraprasād Shāstri in the Durbar Library of Nepal, and an edition of it and of the handbook is being brought out, Professor Ponssin of Ghent having undertaken the task for the Society. Another philosophic Buddhist work in Sanskrit under publication is in the editorial charge of Babu Pratāpa Chandra Ghosa. The first portion of a translation, by Maulvi Abdus Salam, Deputy Collector, of the *Riyazu-s-Salatīn*, a well-known Muhammadan history of Bengal written in the eighteenth century at Malda, has also been published. Of the Journal of our Philological Section three Parts appeared during the year, of which two were Extra numbers containing Dr. Hoernle's erudite report on a collection of antiquities from Central Asia, and a valuable contribution from Colonel J. Davidson, in the form of notes and short sentences, on the grammar and language of the Bashgali dialects of Kafiristan. The publication of Sir George King's *Materials for a Flora of the Malayan Peninsula* was continued in the *Natural History Part* of the Journal, the Government of the Straits Settlements contributing largely to the cost, in appreciation of this important work. Of the *Anthropological Part* of the Journal three numbers were published, containing, among others, papers of great interest by Mr. Holland on the Coorgs and Yeruvās of Southern India, by Mr. Friend-Pereira on the Marriage Customs of the Khonds, by Mr. Bompas on the Folk-lore of the Kolhān and by Babu Monmohan Roy on the Rājvanṣi Caste of North-Eastern Bengal. I would congratulate Mr. Holland on his versatile excursion into research outside of his special domain of Geology, in which he has done so much good work for the Government, and express the hope that both he and the other gentlemen whose papers I have mentioned will place us under further obligation for many interesting contributions to our Journal. Dr. Ross, our Philological Secretary, has drawn attention to the delay which occurs through the printing in India of contributions to our Journal by home residents,

and the matter will be considered by the Council. I trust that our Journal will be fuller during the present year.

Of the papers read at our meetings many have appeared in our Proceedings and Journal, and the rest should be published shortly. The list is a long one, comprising 45 papers, and we are much indebted to the contributors. Mr. Finn, our late Natural History Secretary, favoured us with several of his always interesting papers on Birds, and Mahamahopādhyāya Haraprasād Shāstri, our Joint Philological Secretary, gave us much information on subjects which lie within his special branch of research; while among the papers which I have not noticed in referring to the issues of our Journal, I would specially mention the thoughtful and suggestive paper On Tidal Periodicity in the Earthquakes of Assam, by Mr. Oldham, the excellent Anthropological Notes on Calcutta Juvenile Criminals by Major Buchanan, the Inspector-General of Jails in Bengal, and Dr. Mann's Notes on the Tea Bug, or Mosquito Blight, of Assam, and on the enzymes of the Tea Leaf, both of which record the results of enquiries of great importance to the Tea Industry. Major Buchanan's Notes indicate the marked similarity in physical and anatomical peculiarities which exists between the boy criminal of this city and his social type in the European cities. He has disarmed protest on behalf of those well-behaved and worthy members of society to whom nature has inconsiderately given one or more of these peculiarities, by disclaiming any intention of proving more than that the peculiarities are found in far greater number in the individual criminal, and among criminals as a class, than among normal individuals.

It is my duty to refer to the death during the past year of our Treasurer, Captain McArdle, and our late President, Sir John Woodburn. The Council recorded resolutions of sympathy and condolence on these sad events, and a similar resolution on the death of our late President was passed at the last monthly meeting, which has been respectfully conveyed to Lady Woodburn. Captain McArdle had at an early age attained distinction as a naturalist, and his premature death has been a loss to science, and to this Society, in whose proceedings he would have taken a prominent part. The late Lieutenant-Governor was for many years a member of the Society, and he gave practical evidence of his interest in its work by holding in 1900 and 1901 the position of its President, and taking a share in the duties of the Council, amidst the ceaseless labours of his great official charge. In the universal regret at his death none felt more than the members of this Society, who always received from him the genial and patient courtesy which won the admiration of all. You will remember, gentlemen, his promise on the last occasion on which he addressed us, that he would

read at some future meeting a paper on the work of conservation of monuments done at Gaur and Paudua in the district of Malda during his administration. It is due to his memory in this Society that I should, on this occasion, however briefly, place before you some account of that work.

The ruins of Gaur have for more than a hundred years attracted the notice of Englishmen, and we have early descriptions of them, besides that, accompanied by photographic illustrations, which is so well known to us as the work of Mr. Ravenshaw, edited and published by his widow in 1878. No systematic restoration and preservation of the most striking and beautiful among them appears, however, to have been undertaken until the present day. On the contrary, the work of destruction, begun in early years, was apparently allowed to continue in our time. Mr. Ravenshaw remarks that there is not a village, scarce a house, in the district or the surrounding country which does not bear evidence of having been constructed from these ruins, materials from them having been carried even as far as the cities of Murshidabad, Rajmahal, and Rangpur; and a footnote of his book brings to notice the strange, but melancholy, fact that in the early days of our revenue administration the right to dismantle Gaur of the beautiful enamelled bricks which adorned its buildings was farmed out to the landholders of the district! The capital of the Hindu Kings of Bengal, Gaur, passed, by conquest, into the hands of the Muhammadan rulers of the Province in 1198, and it was during their occupation that it attained its enormous dimensions and its magnificence, until its sack by Sher Shah in 1537, followed by its depopulation by a virulent epidemic of plague in 1575, led to its abandonment. During the centuries which have since passed the climate and the spoliation to which I have referred have necessarily left of the city but a number of scattered ruins, many in hopeless dilapidation, but some fortunately retaining enough of their structure and beauty to merit and reward careful preservation. Among these are the large Golden Mosque, the Dakhil Gate, the Qadam Rasul Mosque, the Minār, the Tantipārā Mosque and the Lattan Mosque, on all of which work has been done by the Bengal Government. The Golden Mosque, or Bāradarwāji, commenced by Husain Shāh and completed by his son Nasrat Shāh between 1521 and 1532 A.D., was perhaps the finest of the Gaur mosques. The principal portion now left is a corridor, having arched openings at each end and eleven graceful arches on each side, surmounted by domes, the whole being faced with large blocks of black hornblende, and the total length being 180 feet by 80 feet. The arches and the crowns of the domes have been repaired, the fallen domes have been restored and facing stones have been put in part of the walls. The stones in a tower at the northern

gate have also been re-set. It is proposed to replace at the springing level of the arches a band of a peculiar blue-coloured stone, which is still procurable. The Dakhil Gate, or northern entrance to the Fort, with a frontage of 70 feet, has an arch of great height, leading into a corridor of 112 feet in length and containing four doors on either side opening into rooms which were probably used by the guard. It was a substantial structure of small red bricks, ornamented with embossed bricks, and having towers at the four corners, and is believed to have been built by Bārbak Shāh between 1460 and 1474. The work of restoration on this gateway consists, for the present, of the rebuilding of the front or northern arch over the entrance, all damaged and missing ornamental bricks being replaced, and of the repairing of the lower portions of the wall of the main rooms. The Qadam Rasul Mosque, which is covered by a single dome, with minarets at the four corners, contains, as its name implies, a stone believed by the faithful to bear an impress of the Prophet's foot, which is said to have been brought from Medina by Husain Shāh, whose son, Nasrat Shāh, built the mosque in 1530. It is much resorted to by pilgrims, and is in fair preservation. Little was required to be done on it, and the work has been completed. The Minar, which is outside the eastern gate of the Fort, is about 80 feet high, a spiral staircase leading to the top, where stood a small apartment covered by a dome, which has fallen in. It is believed to have been built about 1488. The brickwork up to the top and the spiral staircase have been repaired. Of the Tantipārā Mosque, which was probably erected between 1474 and 1481, unfortunately not much remains. It is elegantly and profusely ornamented with embossed bricks, and the interior is supported by massive stone pillars, the western side being occupied by elegantly carved prayer niches. Fallen pillars have been re-erected and the brickwork in front of the pilasters and arches done up; and several tombs lying within the precincts will be repaired and re-covered by the stones which formerly lay on them. Not far from this mosque is the Lattan or Painted Mosque, supposed to have been built by the same monarch. It was greatly admired by Franklin, who visited Gaur in 1810, and its great proportions, its pillars, its domes, its minarets and its beautiful tilework of variegated colours, are very appreciatively described by him; but it is now in a very dilapidated condition. The walls of the southern bays of the main room have been repaired with all the old coloured tiles which could be found, the result being very satisfactory. It is proposed to restore experimentally one arch and one bay with new coloured tiles, as subdued as possible; but, if the result is unsatisfactory, the arches under the still standing domes will be repaired with ordinary brick-

work. On the outside only work which is absolutely necessary to prevent a wall from falling, and the repairing of cracks in the domes, will be undertaken. Of the other remains of Gaur some may possibly receive repairs hereafter. Perhaps the most notable, however, the Raja Gaji wall, seems to be beyond any material help. Its crest is so thickly covered by trees and jungles, whose roots descend far into the brick-work, that the removal of these might lead to an early collapse of great portions of the ruin. This remarkable wall, which surrounded the palace enclosure, is of great thickness, and 22 yards (Bāis Gaj), or 66 feet, in height.

Pandua lies, in an opposite direction, at much the same distance from Malda as Gaur. It was a smaller city, but the kings resided there at some periods, and the present remains include the Adina Mosque, to which Gaur had no equal, and which must have been among the largest mosques in India. This mosque, which was erected by Sikandar Shāh about 1369 A.D., is a quadrangular building, with an inner court, 500 feet in length from north to south and 300 feet in width. Four rows of pillars in blackstone on the western, and two on the northern, eastern and southern, sides supported domes, resting on every set of four pillars, and open arches led into the inner court. The walls were faced outside with black hornblende, and ornamented within by trellis work on three sides, while one side contains prayer niches of hornblende elaborately sculptured. The mosque was entered on the west side by a small door, through a transept eighty feet high, on one side of which stands the Badshah ka Takht, or King's Throne, a stone platform supported by three rows of massive hornblende pillars, twenty-one in number, and on the other the pulpit, of beautiful carved stone, ascended by several steps. Of the domes only a number of those which covered the north-western portion of the mosque remain. The Badshah ka Takht survives in fair preservation, as also the greater part of the western walls. Most of the pillars have fallen, but their bases are in position. The full extent to which the repairs of the mosque will be carried has not been finally settled, but much will be undertaken, especially for the restoration of the Badshah ka Takht and the Pulpit, and the repair of the domes. The north wall, the south transept wall, several arches and some domes have been repaired. Pandua also had its Golden Mosque, built in 1585, a beautiful work in hornblende, the walls of which survive, the interior containing a fine pulpit. Repairs have been done to the walls and arches, the pulpit and the minars. Another mosque, the Eklakhi, lies at a short distance. It is a building of embossed bricks and hornblende, eighty feet square, covered by a single dome, and contains the tombs of Giyasuddin Shāh, his wife, and his daughter-in-law. It was pro-

bably constructed by that sovereign, whose reign terminated in 1397. Repairs have been done to the walls, the floor and the tombs, those which it may be advisable to effect in the dome remaining. The tombs of the saints Mir Kutb Alam and Makdum Shāh are also interesting objects at Pandua.

In addition to the repairs, I should mention that in all cases, at both Gaur and Pandua, *debris* and jungle have been cleared from the interiors of the monuments and the ground outside, and that it is proposed to surround each ruin with a green sward. A constant struggle must, indeed, be maintained against the growth of jungle on the ruins themselves and in their immediate neighbourhood. A considerable sum has been, and will still be, spent on the work of saving these ruins from further dilapidation which has been so earnestly taken up by the Government of Bengal. When all that is requisite and possible has been done, a new illustrated and descriptive account of them would, I doubt not, be very acceptable to the public.

Sir John Woodburn visited Gaur thrice and Pandua twice. Both places were also visited by His Excellency the Viceroy in February last. Those of us who were present will recall the pleasure with which we listened to the paper on Ancient Monuments in India which His Excellency, as Patron of this Society, did us the honour of reading at the Annual Meeting three years ago. His Excellency's profound and practical interest in the historical monuments and antiquities of India has since been demonstrated by inspections of them throughout the country; and at Gaur and Pandua his instructions and suggestions have guided, and will guide, much of the work of restoration and conservation, the essential principle in the restorations being, as I understand, that only such should be undertaken as are necessary to prevent further dilapidation.

While Gaur and Pandua demanded his first care, Sir John Woodburn also saw the need of action at Bhubaneshwar in the Puri District, and, under his orders, repairs have been undertaken on several of the numerous temples which have made the fame of that place with the antiquarian. The great Lingarāj Temple, especially, has received much attention, and repairs have been carried out on the principal of the sacred tanks. Some petty restorations have also been effected in the exceedingly interesting Khandagiri and Udaigiri caves of the same neighbourhood, some of which date back to the second century B.C. His Excellency the Viceroy also saw Bhubaneshwar.

I have myself, gentlemen, had the opportunity of visiting Gaur, Pandua and Bhubaneshwar, and to those who take an interest in antiquities I commend visits to them when the chance offers. Gaur and

Pandua are unfortunately at present not easy of access, but they will, it may be hoped, be reached, without great inconvenience, from Calcutta hereafter by the extension of the railway through Murshidabad to the Ganges, to connect with the Bengal and North-Western system. To Bhubaneshwar the journey by rail is convenient and pleasant.

The President announced that the Scrutineers reported the result of the election of officers and members of Council to be as follows:—

President.

The Hon'ble Mr. C. W. Bolton, C.S.I., I.C.S.

Vice-Presidents.

H. H. Risley, Esq., B.A., C.I.E., I.C.S.

Col. T. H. Hendley, C.I.E., I.M.S.

R. D. Oldham, Esq., A.R.S.M., F.G.S.

Secretary and Treasurer.

Honorary General Secretary:—J. Macfarlane, Esq.

Treasurer:—C. R. Wilson, Esq., M.A., D. Litt.

Additional Secretaries.

Philological Secretary:—T. Bloch, Esq., Ph.D.

Nat. Hist. Secretary:—Captain L. Rogers, M.D., B.Sc., I.M.S.

Anthropological Secretary:—E. A. Gait, Esq., I.C.S.

Joint Philological Secy.:—Mahamahopadhyaya Haraprasad Shastri.

Other Members of Council.

A. Pedler, Esq., F.R.S., C.I.E.

J. Bathgate, Esq.

T. H. D. La Touche, Esq., B.A.

Kumar Ramessur Maliah.

Arnold Caddy, Esq., M.D., F.R.C.S.

E. D. Ross, Esq., Ph D.

The Hon. Dr. Asutosh Mukhopadhyaya, M.A., D.L., F.R.S.E.

I. H. Burkill, Esq.

H. E. Kempthorne, Esq.

The Meeting was then resolved into the Ordinary General Meeting.

THE HON. MR. C. W. BOLTON, C.S.I., I.C.S., President, in the chair.

The minutes of the December Meeting were read and confirmed.

The Council reported that owing to the Delhi Darbar no meeting was held in January.

Twenty-six presentations were announced.

Rai Bahadur Bhawan Das and Mr. Abdul Alim were balloted for and elected Ordinary Members.

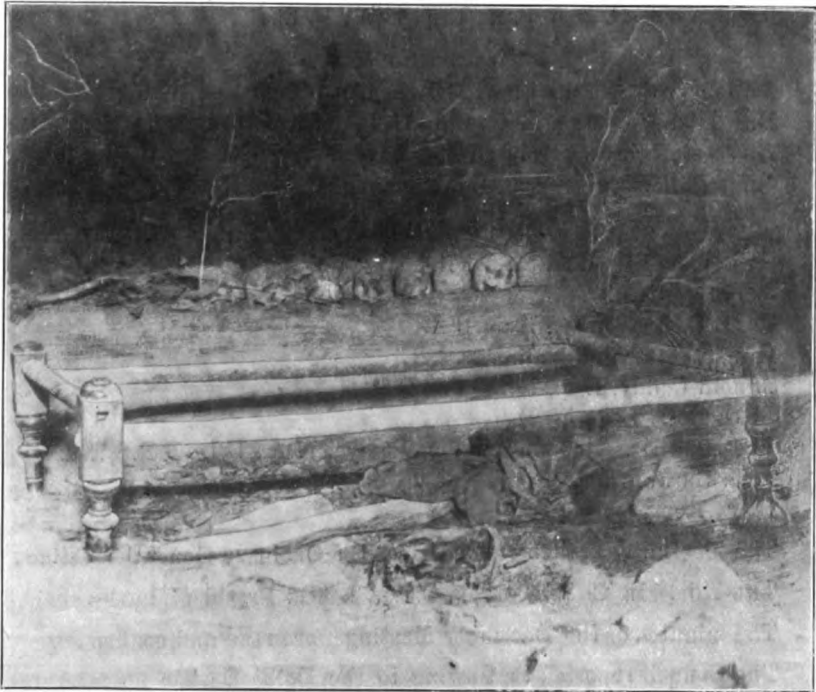
It was announced that Major H. E. Drake-Brockman, Lieut. B. Scott and Rai Chuni Lal Bose Bahadur, had expressed a wish to withdraw from the Society.

The General Secretary reported the death of General J. E. Gastrell, a Life Member of the Society.

The President announced that Lieutenant-Colonel G. Ranking, I.M.S., re-elected a Member of the Society on 5th February, 1902, having not paid his entrance fee, his election has become null and void under Rule 9.

The General Secretary reported the presentation of three silver coins from the Government of United Provinces of Agra and Oudh.

The Anthropological Secretary exhibited the accompanying photograph of a cave found by Lieutenant Macleod near the small village of



Pandran in the Jhālāwan Country, south-east of Kalat in Baluchistan, which had apparently been used as a burying place—the following account

of the place by Lieutenant Macleod was received with the photograph, from Mr. R. Hughes-Buller, Superintendent, Imperial Gazetteer, Baluchistan.

Pandran is a pretty place on a basin of the hills with plenty of water from two springs on the west. The village, which contains five or six Banniah shops and about fifty houses, is situated round an elevated rock known as Anbir. There is much cultivation and plenty of trees.

Due west of the village at a distance of about a quarter of a mile is an extraordinary cave situated in the skirt of the hill. All the ground round is rolling and in the side of one of the folds is a hole just big enough for a large man to squeeze through. It is said that this hole was uncovered and exposed to view by a flood or erosion of the ground some 50 or 60 years ago. On entering the hole, which is almost in the centre, one finds oneself in an underground vault consisting of a front chamber and two recesses. The breadth of the chamber is about 18 feet and the length to the back of each recess about 16 feet. The recesses are round with domed roofs; the front chamber also has a domed roof. Thus:—

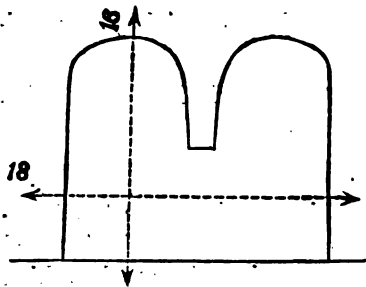


Fig. 1.

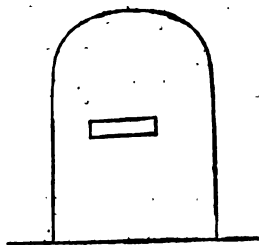


Fig. 2.

Section of right-hand recess.

The whole appears to have been hewn out of the conglomerate rock. At the left-hand corner of the centre partition is a heap of bones and with this exception there is nothing in the left-hand recess.

In the right-hand recess a niche has been cut out of the rock about 6' x 3' x 3'. In it there are twenty-five skulls, one of them is a small one and appears to be that of a child. The rest appear to be those of adults. There are also the ribs and leg-bones of a child down to the knees. In the centre of the right-hand recess lies a bed which, according to the country people, when the vault was just opened, supported a skeleton. The strings of the bed have now, however, given way and the skeleton, which is evidently that of a man, is lying on its back, on

the ground below the bed. There are holes, which appear to be those of a bullet or arrow on the right temple and at the left side of the back of the skull.

Lying near the bed is the skeleton of a large dog which the people say was tied to the bed or *charpoy* by a string when first observed. Between the bed and the back of the recess are a few bones. The bed is firmly made of rounded wood (including the frame) and is still in good condition. Lieutenant Macleod seated himself on it when exploring the cave. Over the ribs and head of the corpse was a coarse cloth, thin, and of a dirty yellow colour.

The natives point to another place about 20 yards away and say that there is another vault there in which women's skeletons are to be found. No one living appears to have ever entered the second cave, if it exists as alleged.

The natives hold the place in considerable awe and have a theory that the place was the scene of a fight. The whole vault was extraordinarily symmetrical.

The following papers were read:—

1. *Notes on the occurrence of Motacilla Taiwana (Swinhoe) near Calcutta.*—By CAPTAIN H. J. WALTON, I.M.S.

2. *Gayā Çrāddha and Gayāwāls.*—By L. S. S. O'MALLEY, I.C.S. Communicated by the Anthropological Secretary.

(Abstract).

The Gayā District, says Mr. O'Malley, is remarkable for the diversity of religious beliefs found there. It is the cradle of Buddhism and still attracts devout pilgrims from distant countries. The real working religion of the great majority of the inhabitants is the propitiation of devils, while Gayā itself is the place to which all pious Hindus resort whose ancestors require deliverance from the condition of evil spirits by means of the Gayā Çrāddha. The popularity of this Çrāddha seems to date from comparatively recent times. The Gayāwāl Brāhmanas who conduct the ceremony profess to be of the Vaiṣṇava sect, but the most prominent place in the invocations offered, is taken by Yama, the God of death, whose presentation in the local legends is very far removed from the conception given in the Vedas, and is more that of the popular devil. The ceremony performed, moreover, affords clear traces of the propitiation and worship of ancestors, and of the primitive conception of roaming spirits. These circumstances and the fact that the Dhāmis, whose Brāhmanical origin is doubtful, take the offerings at certain points, all go to show that the popular demonolatry of the district has

had a large share in the origin of what is now regarded as a perfectly orthodox and highly meritorious rite. The origin of the Gayāwāls is uncertain. They are ignorant and dissolute, but during the ceremony over which they preside, they are worshipped even as Viṣṇu himself. They are gradually dying out, and in the meantime, they have peculiar practices of adoption for which there is no authority in the *Çāstras*. These are described at some length in Mr. O'Malley's paper.

3. *Some Notes on the Religion and Superstitions of the Orāḥns.*—By REV. F. HAHN. *Communicated by the Anthropological Secretary.*

(Abstract).

The author enumerates the various objects of worship which he classifies under three heads—benevolent spirits, malevolent spirits and noxious spirits and apparitions. He then proceeds to describe the various priestly offices and the lands assigned for religious purposes. Certain prevalent superstitions are discussed and a list is given of a number of totemistic septs with the *taboo* attached to each. Most of these totems are already enumerated in Mr. Bisley's book on the tribes and castes of Bengal.

4. *Notes on the Koch, Poliyā and Rājvaṃçi in Dinājpur.*—By HARI-MOHAN SINHA. *Communicated by the Anthropological Secretary.*

(Abstract).

This paper, like that by Babu Monmohan Roy, which was read at the November meeting, deals with the group of tribes in North Bengal, who are often classed together as Rājvaṃçi-Koch, but it approaches the subject from a different standpoint and deals with the social distinctions which now exist rather than with the ethnic affinities of the different groups. It appears, however, incidentally that the term Rājvaṃçi has a different application in Dinājpur from that which it appears to have in the Rangpur District. It is shown that the term Deçl refers not to a distinct caste, but to a subdivision both of the Koch and of the Poliyā castes.

A full analysis of these interesting tribes still remains to be written.

5. *The green bug and other jassids as food for birds.*—By H. W. PEAL, F.E.S.

6. *Contributions towards a Monograph of the Oriental Aleurodids.*—By H. W. PEAL, F.E.S.

7. *The function of the vasiform orifice of the Aleurodids.*—By H. W. PEAL, F.E.S.

LIBRARY.

The following additions have been made to the Library during 1902.

TRANSACTIONS, PROCEEDINGS, AND JOURNALS.

ASIA.

Ceylon.

- COLOMBO. *Royal Asiatic Society, Ceylon Branch, Journal*, Vols. II, Nos. 5., X, 35-36.; XI, 38-41., XII, 42-43., XIII, 44-45., XIV, 46-47., XV, 48-49., XVI, 50-51., XVII, 52; Proceedings, 1887-1890.
- PERADENIYA. *Royal Botanic Gardens, Annals*, Vol. I, Parts 1-2.

India.

- ALLAHABAD. *Department of Land Records and Agriculture, N.W-P. and Oudh, Agricultural Series, Bulletin*, Nos. 8-18.
- . *Indian Forester*, Vol. XXVIII, Nos. 1-12.
- BOMBAY. *Anthropological Society, Journal*, Vols. V, Nos. 8., VI, 1-2.
- . *Epigraphia Indica*, Vols. VI, Parts 7., VII, 1-3.
- . *Indian Antiquary*, Vols. XXX, Parts 380-385., XXXI, 386-396.
- . *Natural History Society, Journal*, Vol. XIV, Nos. 1-2.
- . *Royal Asiatic Society, Bombay Branch, Journal*, Vol. XXI, No. 57.
- CALCUTTA. *Agricultural and Horticultural Society of India, Proceedings and Journal*, October-December, 1901.
- . *Agricultural Ledger*, Nos. 14, 1901., 1-7, 1902.
- . *Botanical Survey of India, Records*, Vol. II, Nos. 1-3.
- . *Buddhist Text and Anthropological Society, Journal*, Vol. VII, Part 2.
- . *Calcutta Review*, Vols. CXIV, Nos. 227-228., CXV, 229.
- . *Geological Survey of India, Memoirs*, Vols. XXXII, Parts 3., XXXIV, 1-2; Report, 1901-1902; Memoirs, *Palæontologia Indica*, New Series, Vol. II, No. 1.
- . *Indian and Eastern Engineer, New Series*, Vols. X, Nos. 1-4, 6., XI, 1-5.
- . *Indian Engineering*, Vols. XXXI, Nos. 1-26., XXXII, 1-26.
- . *Indian Lancet*, Vols. XVIII, Nos. 12, 14., XIX, 1, 3-8, 10-12, 14-16, 18-26., XX, 1-26.
- . *Indian Meteorological Memoirs*, Vol. XII, Nos. 2-4.
- . *Mahabodhi Society of India, Journal*, Vols. X, Nos. 10, 12., XI, 1-3, 5-6.
- . *Monthly Weather Review*, January-December, 1901., January-June, 1902.

CALCUTTA. *Photographic Society of India*, Journal, Vol. XVI, Nos. 1-12.

MADRAS. *Astrological Magazine*, Vols. V, Nos. 12., VI, 3-4, 7-10.

———. *British Medical Association, South Indian Branch*, Transactions, Vol. IX, No. 3.

———. *Government Museum*, Bulletin, Vol. IV, No. 2.

MYSORE. *Geological Department*, Records, Vol. II.

SIMLA. *United Service Institution of India*, Journal, Vol. XXXI, Nos. 146-149.

Indo-China.

HANOI. *Ecole Française d'extrême-Orient*, Bulletin, Tome I, Nos. 4., II, 1-3.

Japan.

TOKYO. *Asiatic Society of Japan*, Transactions, Vols. XXIX, Parts 1-2, XXX, 2.

———. *Deutsche. Gesellschaft für Natur- und Völkerkunde Ostasiens*, Mittheilungen, Band VIII, Nrn. 3., IX, 1., Supplement Nr. 5.

———. *Imperial University*, Calendar, 1901-1902; Journal of the College of Science, Vols. XVI, Parts 1-2, 6-14., XVII, 1-3, 7-10.

———. *Kaiserlich-Japanische Universität*, Mittheilungen aus der Medicinischen facultät, Band V, Nrn. 2 und 4.

Korea.

SEOUL. *Royal Asiatic Society, Korea Branch*, Transactions, Vol. II, Part I.

Malay Archipelago.

BATAVIA. *Bataviaasch Genootschap van Kunsten en Wetenschappen*. *Natuurkundig Tijdschrift*, Deel LXI; *Notulen*, Deel XXXIX, Aflevering 3., XL, 1; *Tijdschrift voor Indische Taal-, Land- en Volkenkunde*, Deel XLV, Aflevering 1, 2, 4; *Verhandlungen*, Deel LIV, Stuk 1., LV, 1.

Malay States.

TAIPING. *Perak Government, Gazette*, Vol. XV, Nos. 1-44.

Straits Settlements.

SINGAPORE. *Royal Asiatic Society, Straits Branch*, Journal, Nos. 37-38.

EUROPE.

Austro-Hungry.

BUDAPEST. *Aquila*, Band VIII, Nrn. 1-4.

———. *Magyar Tudományos Akadémia*, *Ertekezések*, Kötet XVII, Szam 6-8; *Nyelvtudományé Közlemények*, Kötet XXX, Füzet 3-4., XXXI, 1-2.

BUDAPEST. *Société Hongroise de Géographie*, Bulletin, Tome XXVIII, Nos. 1-10.

PRAGUE. *K. K. Sternwarte*, Magnetische und Meteorologische Beobachtungen, 1901.

TRENSCHIN. *Naturwissenschaftlicher Verein*, Jahresheft, Band XXIII-XXIV.

VIENNA. *Kaiserliche Academie der Wissenschaften*, Almanach, 1900; Oesterrichische Geschichts-Quellen, Abtheilung II, Band LI; Register, Band I-L; Sitzungsberichte, Abtheilung I, Band CIX, Heft 7-10; II A, CIX, 8-10., CX, 1-3; II B, CIX, 8-10., CX, 1; III, CIX, 8-10.

———. *Anthropologische Gesellschaft in Wien*, Mittheilungen, Band XXX, Heft 4-6., XXXI, 1-2.

———. *K. K. Geologische Reichsanstalt*, Abhandlungen, Band XVI, Heft 1; Jahrbuch, Band L, Heft 1-4; Verhandlungen, Heft 10-18, 1901., 1-10, 1902.

———. *K. K. Zoologische-botanische Gesellschaft in Wien*, Verhandlungen, Band LI, Heft 9-10., LII, 1-4, 6-9.

Belgium.

BRUSSELS. *Académie Royale des Sciences, des lettres et des Beaux-arts de Belgique*, Annuaire, 1900-1902; Bulletin, Lettres, 1899-1901., 1902, Nos. 1-8; Sciences, 1899-1901., 1902, Nos. 1-8; Mémoires, tome LIV, Nos. 1-5; Mémoires couronnés et autres mémoires, tome LVI, LVIII-LXI, LXII, No. 1; Mémoires couronnés et mémoires des Savants étrangers, tome LVII-LVIII; Lettres, tome LIX, No. 3; Sciences, Tome LIX, Nos. 1-2.

———. *Société Entomologique de Belgique*, Annales, Tome XLV.

———. *Société Royale des Sciences*, Mémoires, 3^e Série, Tome IV.

LIEGE. *Société Géologique*, Annales, Tome XXVIII, Nos. 4., XXIX, 1-3.

Denmark.

COPENHAGEN. *Nordiske Oldskrift-Selskab*, Aarboger, II Række, Bind XIV, Heft 3., Bind XVI; Nordiske Fortidsminder, Heft 4.

———. *Société Royale des Antiquaires du Nord*, Mémoires, 1900-1901.

France.

ANGERS. *Société d'Études Scientifiques*, Bulletin, 1900.

BORDEAUX. *Académie Nationale des Sciences, belles-lettres et arts de Bordeaux*, Actes, 1898-1899.

———. *Société Linnéenne*, Actes, Tome LV.

- CABEN.** *Société Linnéenne de Normandie*, Bulletin, 5. Série, Tome IV, Mémoires, Tome XX, No. 3.
- CHERBOURG.** *Société Nationale des Sciences Naturelles et Mathématiques de Cherbourg*, Mémoires, Tome XXXI-XXXII.
- HAVRE.** *Société de Géographie Commerciale*, Bulletin, Tome XVIII, Nos. 3., XIX, 1-2.
- LYONS.** *Société d'Anthropologie*, Bulletin, Tome XIX.
- NANTES.** *Société des Sciences Naturelles de l'ouest de la France*, Bulletin, Tome X, No. 4., 2^e Série, I, 1-2.
- PARIS.** *Académie des Sciences*, Comptes rendus des Séances, Tome CXXXIII, Nos. 7-27., CXXXIV, 1-13, 16-26., CXXXV, 1, 3-5.
- *Annales de Chimie et de Physique*, Septembre-Décembre, 1901., Janvier-Août, 1902.
- *Annales de l'Institut Pasteur*, Tome XVI, Nos. 1-9.
- *Journal des Savants*, août-décembre, 1901., janvier-juillet, 1902.
- *Musée Guimet*, *Annales*, Bibliothèque d'Études, Tome X; *Revue de l'Histoire des Religions*, Tome XLIII, Nos. 2-3, XLIV, 1-2.
- *Museum d'Histoire Naturelle*, Bulletin, Nos. 1-6, 1901; *Nouvelles Archives*, 4 Série, Tome II-III.
- *Revue critique d'histoire et de littérature*, Tome LII, Nos. 32-52., LIII, 1-31,
- *Revue scientifique*, 4^e Série, Tome XVI, Nos. 7-19, 21-36., XVII, 1-26., XVIII, 1-7.
- *Société d'Anthropologie*, Bulletins et Mémoires, Nos. 5-6, 1900., 1-4, 1901.
- *Société de Géographie*, Bulletin, Nos. 12, 1901., 1-6, 1902.
- *Société Philomathique*, Bulletin, 9^e Série, Tome III, Nos. 3-4., IV, 1-2.
- *Société Zoologique de France*, Bulletin, Tome XXVI; Mémoires, Tome XIV.

Germany.

- BERLIN.** *Archiv für pathologische Anatomie und Physiologie und für klinische Medizin*, Band CLXVIII, Heft 2-3.
- *Deutsche Literaturzeitung*, Band XXII, Nrn. 24-52., XXIII, 1-33.
- *Entomologische Zeitschrift*, Band XLVI, Nrn. 4., XLVII, 1.
- *Gesellschaft Naturforschender Freunde*, Sitzungs-Berichte, 1900.
- *Journal für die reine und angewandte Mathematik*, Band CXXIV, Heft 1-4.
- *Königliche Bibliothek*, Handschriften-Verzeichnisse, Band XIII.

- BERLIN. *Königlich Preussische Akademie der Wissenschaften*, Abhandlungen, 1901; Sitzungsberichte, Nrn. 39-53, 1901., 1-40, 1902.
- . *Oriental Bibliography*, Vols. XIV, Parts 2., XV, 1.
- . *Seminar für Orientalische Sprachen*, Mittheilungen, Band V, Nrn. 1-3.
- . *Zeitschrift für Ethnologie*, Heft 3-6, 1901., 1, 1902.
- BRUNSWICK. *Jahresberichte über die Fortschritte der Chemie und verwandter Theile anderer Wissenschaften*, Heft 1-8, 1894., 1-2, 1895., 9-10, 1897.
- . *Verein für Naturwissenschaft*, Jahresbericht, 1899-1900, und 1900-1901.
- CASSEL. *Botanisches Centralblatt*, Band LXXXVII, Nrn. 8-13., LXXXVIII, 1-13., LXXXIX, 1-26., XC, 1-6., XCI, 1-3; Beihefte, Band X, Heft 8., XI, 1-7., XII, 1-2.
- . *Verein für Naturkunde zu Kassel*, Abhandlungen und Bericht, Band XLV.
- DRESDEN. *Gesellschaft Iris zu Dresden*, *Deutsche Entomologische Zeitschrift*, Band XIV, Nrn 2., XV, 1.
- . *Königl. Zoologische und Anthropologisch—Ethnographisches Museum*, Abhandlungen und Bericht, Band IX.
- FRANKFURT, a. M. *Senckenbergische Naturforschende Gesellschaft*, Abhandlungen, Band XXV, Nrn. 1-2., XXVI, 2., XXVIII; Bericht, 1900.
- FRANKFURT, a. O. *Naturwissenschaftlicher Verein des Reg.-Bez. Frankfurt*, *Helios*, Band XIX.
- GÖTTINGEN. *Königl. Gesellschaft der Wissenschaften*, *Göttingische gelehrte Anzeigen*, Band CLXIII, Nrn. 7-12., CLXIV, 1-5; Nachrichten, Geschäftliche Mittheilungen, Heft 1-2, 1901., 1, 1902; Mathematisch-Physikalische Klasse, Heft 1-3, 1901, 1-4, 1902; Philologisch-Historische Klasse, Heft 1-4, 1901., 1-3, 1902.
- GRATZ. *Naturwissenschaftlicher Verein für Steirmark*, Mittheilungen, 1901.
- HALLE. *Kaiserliche Leopoldinisch-Carolinische Deutsche Akademie der Naturforscher*, Abhandlungen, Band LXXV-LXXIX; *Leopoldina*, 1899-1901.
- HAMBURG. *Naturhistorisches Museum*, Mittheilungen, Band XVII.
- . *Naturwissenschaftlicher Verein*, Abhandlungen, Band XVI, Heft 2; Verhandlungen, 1900.
- JENA. *Centralblatt für Bakteriologie, Parasitenkunde und Infektionskrankheiten*, Band XXXI, Nrn. 12-25.
- KÖNIGSBERG. *Physikalisch-Ökonomische Gesellschaft*, *Schriften*, Band XLII.
- LEIPZIG. *Annalen der Physik und Chemie*, Band VII, Nrn. 1-4., VIII, 5-7., IX, 9-12; Beiblätter, Band XXV, Nrn. 12., XXVI, 1-11.

LEIPZIG. *Deutsche Morgenländische Gesellschaft, Zeitschrift*, Band LVI, Nrn. 1-3.

———. *Königl. Sächsische Gesellschaft der Wissenschaften, Abhandlungen*, Math.-Phys. Classe, Band XXVII, Nrn. 1-9; Phil.-Hist. Classe., Band XIX, Nrn. 3., XX, 4-5., XXI, 2; *Berichte über die Verhandlungen*, Math.-Phys. Classe., Nrn. 4-7, 1901., 1-5, 1902; Phil.-Hist. Classe, Nrn. 2-4, 1901., 1-2, 1902., Sonderheft, 1902.

———. *Literarisches Centralblatt*, Band LII, Nrn. 33-52., LIII, 1-33.

MUNICH. *Königlich Bayerische Akademie der Wissenschaften, Abhandlungen*, Historische Classe, Band XXII, Nr. 1; Mathematisch-Physikalische Classe, Band XXI, Nr. 2; Philosophisch-Philologische Classe, Band XXI, Nr. 3; *Sitzungsberichte*, Mathematisch-Physikalische Classe, Heft 3, 1899., 4, 1901., 1-2, 1902; Philosophisch-Philologische und der Historische Classe, Band II, Heft 2., Heft 1, 1900., 3, 5, 1901., 1-2, 1902.

NURNBERG. *Naturhistorische Gesellschaft, Abhandlungen*, Band XIV.

STETTIN. *Entomologische Zeitung*, Band LXIII.

STUTTGART. *Verein für vaterländische Naturkunde in Württemberg, Jahreshefte*, Band LVIII.

WEIMAR. *Zeitschrift für angewandte Mikroskopie*, Band V, Nr. 10.

Great Britain and Ireland.

DUBLIN. *Royal Dublin Society, Proceedings, New Series*, Vol. IX, Parts 3-4; *Transactions, Series II*, Vol. VII, Nos. 8-13.

———. *Royal Irish Academy, Transactions*, Vols. XXXI, Parts 11-14., XXXII, 1-2.

EDINBURGH. *Greenwich Royal Observatory, Results of the Magnetical and Meteorological Observations*, 1899.

———. *Royal Physical Society, Proceedings*, Vol. XIV.

LIVERPOOL. *Literary and Philosophical Society, Proceedings*, 1900-1901.

LONDON. *Academy*, Vols. LXII, Nos. 1546-1572., LXIII, 1573-1597.

———. *Annals and Magazine of Natural History*, 7th Series, Vols. VIII, Nos. 45-48., IX, 49-54., X, 55-56.

———. *Anthropological Institute, Journal*, Vols. XXXI, Nos. 2., XXXII, 1.

———. *Asiatic Quarterly Review*, 3rd Series, Vol. XIII, Nos. 25-26.

———. *Athenæum*, Nos. 3869-3911, 3913-3920.

———. *British Medical Journal*, Nos. 2140-2165.

———. *Chemical News*, Vols. LXXXIV, Nos. 2177-2196., LXXXV, 2197-2222., LXXXVI, 2223-2229.

———. *Entomologist*, Vols. XXXIV, Nos. 460-463., XXXV, 464-471.

- LONDON. Entomologists' Monthly Magazine, 2nd Series, Vols. XII, Nos. 141-144., XIII, 145-152.
- . *Geological Society*, Geological Literature, 1901; Quarterly Journal, Vol. LVIII, Parts 1-4.
- . *Ibis*, 8th Series, Vols. I, Nos. 4., II, 5-6.
- . *Institution of Civil Engineers*, Minutes of Proceedings, Vols. CXLV-CXLVI; Subject Index, Vols. CXIX-CXLVI.
- . *Institution of Electrical Engineers*, Journal, Vol. XXXI, Parts 1-6; List of Members, 1902.
- . *Institution of Mechanical Engineers*, Proceedings, Nos. 3-5, 1901., 1, 1902; List of Members, 1902.
- . *Journal of Botany*, Vols. XXXIX, Nos. 465-468., XL, 469-476.
- . *Journal of Conchology*, Vol. X, Nos. 4-7.
- . *Journal of Physiology*, Vol. XXVIII, Nos. 3-5.
- . *Linnean Society*, Journal, Botany, Vols. XXVI, Nos. 179-180., XXXV, 244-245; Zoology, Vol. XXVIII, Nos. 184-185; Proceedings, 1901-1902; Transactions, Botany, Vol. VI, Parts 2-3; Zoology, Vol. VIII, Parts 5-8.
- . *Messenger of Mathematics*, Vol. XXXI, Nos. 1-12.
- . *Nature*, Vols. LXV, Nos. 1677-1695., LXVI, 1696-1728.
- . *Notes and Queries*, 9th Series, Vols. VIII, Nos. 190-209., IX, 210-242.
- . *Numismatic Chronicle*, Parts 3-4, 1901., 1-2, 1902.
- . *Numismatic Circular*, Vols. X, Nos. 110-120., XI, 121.
- . *Philosophical Magazine*, 6th Series, Vols. II, Nos. 9-12., III, 13-18., IV, 19-20.
- . *Quarterly Journal of Microscopical Science*, New Series, Vols. XLIV, Parts 3-4., XLV, 1-3.
- . *Quarterly Journal of Pure and Applied Mathematics*, Vol. XXXIII, Nos. 1-4.
- . *Royal Asiatic Society*, Journal, Parts 1-4, 1902.
- . *Royal Astronomical Society*, Monthly Notices, Vol. LXII, Nos. 2-9, and Appendix.
- . *Royal Geographical Society*, Geographical Journal, Vols. XIX, Nos. 1-6., XX, 1-6.
- . *Royal Institution*, Proceedings, Vol. XVI, Part 3.
- . *Royal Microscopical Society*, Journal, Parts 4-6, 1901., 1-3, 1902.
- . *Royal Society*, Philosophical Transactions, Vols. CXCIV, Series B., CXCIV A., CXCVIII A.; Proceedings, Vols. LXVIII, Nos. 449-50., LXIX, 451-458., LXX, 459-464; Year-Book, 1902.
- . *Royal Statistical Society*, Journal, Vols. LXIV, Parts 3-4., LXV, 1.

LONDON. *Zoological Society*, Proceedings, Parts 2, 1901., 1-2., 1902; Transactions, Vol. XVI, Parts 4, 6.

MANCHESTER. *Literary and Philosophical Society*, Memoirs and Proceedings, Vol. XLVI, Parts 2-6.

TRING. *Novitates Zoologicae*, Vols. VIII, Nos. 4-5., IX, 1-2.

Holland.

AMSTERDAM. *Koninklijke Akademie van Wetenschappen*, Jaarboek, 1900; Verhandlungen, 1^o Sectie, Deel VII, Nrn. 1-7., 2^o Sectie, VII, 4-6; Afdeling Letterkunde, Nieuwe Reeks, Deel III, Nrn. 1-4; Verslag vande gewone vergaderingen der Wis-en Naturkundige, Deel IX.

THE HAGUE. *Koninklijk Instituut voor de Taal-, Land-en Volkenkunde van Nederlandsch-Indië*, Bijdragen tot de Taal-, Land-en Volkenkunde van Nederlandsch-Indië, 6^o Volgr., Band IX, Nrn. 3-4., X, 1-2.

———. *Tijdschrift voor Entomologie*, Band XLIV, Nrn. 3-4., XLV, 1-2.

LEYDEN. *Internationales Archiv für Ethnographie*, Band XIV, Heft 3-6; Supplement, XV, 1-2.

Italy.

FLORENCE. *Società Italiana d'Antropologia, Etnologia e Psicologia comparata*, Archivio per l'antropologia e la etnologia, Tome XXXI, XXXII, No. 1.

PISA. *Società Toscana di Scienze Naturali*, Atti, Memorie, Tome XVII; Atti, Processi verbali, Tome XII, pp. 231-266., XIII, 1-40.

ROME. *Reale Accademia dei Lincei*, Atti, Rendiconto, Classe di scienze fisiche, matematiche e naturali, 5 Série, 2^o Semestre, Tome X, Nos. 11-12., 1^o Semestre, XI, 1-7, 9-12., 2^o Semestre, XI, 1-10; Atti, Rendiconto dell'adunanza solenne del 1. Giugno, 1902.

———. *Società degli Spettroscopisti Italiani*, Memorie, Tom. XXXI, Nos. 1-10.

———. *Società Romana di Antropologia*, Atti, Tome VIII, Nos. 2-3.

TURIN. *Reale Accademia della Scienze*, Atti, Tome XXXVII, Nos. 11-15; Memorie, 2^o Serie, Tome LI; Osservazioni meteorologiche, 1901.

Norway.

CHRISTIANIA. *Videnskabs-Selskab*, Forhandlingar, 1901; Skrifter, Nrn. 1-6, 1901.

Sweden.

STOCKHOLM. *Entomologisk Tidskrift*, Band XXII, Nrn. 1-4.

———. *Kongl. Svenska Vetenskaps-Akademien*, Bihang, Afdeling I-IV, Band XXVI; Handlingar, Band XXXIII-XXXIV; Meteorologiska Iakttagelser i Sverige, 1896.

STOCKHOLM. *Kongl. Vitterhets Historie och Antiquitets Akademien*,
Manadsblad, 1897.

UPSALA. *Kongl. Humanistiska Vetenskaps-Samfund*, Skrifter, Band
IV.

Russia.

HELSINGFORS. *Finska Vetenskaps-Societet*, Öfversigt, Band XLIII.

—————. *Societas pro Fauna et Flora Fennica*, Acta, Tome XX;
Meddelanden, Heft 27.

—————. *Société Finno-Ougrienne*, Journal, Tome XX; Mémoires,
Tome XV, No. 2., XVII-XVIII.

MOSCOW. *Société Impériale des Naturalistes*, Bulletin, Nos. 3-4, 1901.,
1-2, 1902.

ST. PETERSBURG. *Académie Impériale des Sciences*, Annuaire du Musée
Zoologique, Tome VI, Nos. 2-4., VII, 1-2; Bulletin, 5 Série,
Tome XII, Nos. 2-5., XIII, 1-3; Mémoires, Classe Phy.-Math., 8 Série,
Tome X, Nos. 7-9.

—————. *Hortus Petropolitanus*, Acta, Tome XIX, Nos. 1-3., XX.

—————. *Russian Imperial Geographical Society*, Journal, 1901; Pro-
ceedings, Vols. XXXVII, Nos. 4-5., XXXVIII, 1-2.

—————. *Russisch-Kaiserliche Mineralogische Gesellschaft*, Verhand-
lungen, Band XXXIX, Nrn. 1-2.

Switzerland.

BASEL. *Naturforschende Gesellschaft*, Verhandlungen, Band XIII, Heft
2; Namenverzeichniss und Sachregister der Bände 6 bis 12.

GENEVA. *Archives des Sciences Physiques et Naturelles*, Tome XII, Nos.
12., XIII, 1-5, 7-11.

—————. *Société de Physique et d'Histoire Naturelle*, Mémoires, Tome
XXXIII, Parts 2., XXXIV, Nos. 1-2.

SCHAFFHAUSEN. *Société Entomologique Suisse*, Bulletin, Tome X, No.
8.

ZURICH. *Naturforschende Gesellschaft*, Neujahrsblatt, 1900; Viertel-
jahrschrift, Band XLIV, Nrn. 1-4., XLV, 1-4., XLVI, 1-4.

AFRICA.

Cape Colony.

CAPE TOWN. *South African Museum*, Annals, Vol. II, Parts 6-9.

—————. *South African Philosophical Society*, Transactions, Vol. XI,
Part 4.

Congo Free State.

CONGO. *État Independant du Congo*, Annales, Botanique, Série I, Tome
I, Nos. 8., III, 2, IV, I; Ethnographie et Anthropologie, Série III,

Tome VII, No. 1 ; Zoologie, Série I, Tome II, No. 2 ; Publications, Nos. 12-15.

NORTH AMERICA.

Canada.

MONTRÉAL. *Royal Society*, Proceedings and Transactions, 2nd Series, Vol. VI.

OTTAWA. *Geological Survey of Canada*, Contributions to Canadian Palæontology, Vols. II, Parts 2., IV, 2.

Mexico.

MEXICO. *Instituto Geológico*, Boletín, No. 15.

———. *Sociedad Científica "Antonio Alzate,"* Memorias y Revista, Tome XIII, Nos. 1-4., XV, 3-12., XVI, 1-3.

United States.

ALBANY. *Society of Natural Sciences*, Bulletin, Vol. VII, No. 1.

BALTIMORE. *Johns Hopkins University*, American Chemical Journal, Vols. XXIII, Nos. 5-6., XXIV-XXVI, XXVII, 1-3 ; American Journal of Mathematics, Vols. XXII, Nos. 2-4., XXIII, 1-4., XXIV, 1 ; American Journal of Philology, Vols. XXI, Nos. 1-4., XXII, 1-3 ; Circular, Vols. XIII, Nos. 134-139., XIX, 144-145., XX, 148, 149, 154-158 ; Register, 1900-1901 ; Studies in Historical and Political Science, Series XVIII, Nos. 5-12., XIX, 1-12., XX, 1.

BOSTON. *American Philological Association*, Transactions and Proceedings, Vols. XXXI-XXXII.

———. *Society of Natural History*, Occasional Papers, No. 6 ; Proceedings, Vols. XXIX, Nos. 15-18., XXX, 1-2.

CHAMPAGNE, Ill. *Illinois State Laboratory of Natural History*, Bulletin, Vol. VI, No. 1.

CHICAGO. *Field Columbian Museum*, Publications, Anthropological Series, Vols. II, Nos. 4-5., III, 1-2 ; Geological Series, Vol. I, Nos. 8-10 ; Report Series, Vols. I, Nos. 6., II, 1 ; Zoological Series, Vols. II, Nos. 1-2., III, 3-5.

———. *Journal of Geology*, Vols. IX, Nos. 8., X, 1-6.

———. *Newberry Library*, Report, 1901.

CINCINNATI. *Lloyd Library*, Bulletin, No. 2, 1901.

HAMILTON. *Hamilton Association*, Journal and Proceedings, 1901-1902.

INDIANAPOLIS, Ind. *Indiana Academy of Sciences*, Proceedings, 1900.

ITHACA. N. Y. *Cornell University*, Studies in Classical Philology, Nos. 15-16.

LAWRENCE, Kansas. *Kansas University*, Quarterly, Vols. I, Nos. 4, 8., II, 1, 6, 8.

MADISON, Wis. *Wisconsin Academy of Sciences, arts and letters*, Transactions, Vol. XIII, Part I.

- NEW HAVEN. *American Journal of Science*, 4th Series, Vols. XII, Nos. 69-72., XIII, 73-78., XIV, 79-80.
- . *American Oriental Society, Journal*, Vols. XXI, Nos. 1., XXII, 1-2., XXIII, 1.
- . *Yale University, Catalogue*, 1901-1902; *Yale Review*, Vols. X, Nos. 4., XI, 1-3; *Studies from the Yale Psychological Laboratory*, Vols. IX-X; *Studies in English*, Nos. 11, 13.
- NEW YORK. *American Museum of Natural History, Bulletin*, Vols. XI, Parts 4., XIII-XV, XVII, 2; Report, 1900.
- . *Botanical Garden, Bulletin*, Vol. II, Nos. 6-7.
- . *Brooklyn Institute of Arts and Sciences, Science Bulletin*, Vol. I, No. 1.
- OBERLIN, OHIO. *Wilson's Bulletin, New Series*, Vol. IX, Nos. 2-3.
- PHILADELPHIA. *Academy of Natural Sciences, Journal*, 2nd Series, Vol. XI, Part 4; *Manual of Conchology*, 2nd Series, Part 54; *Proceedings*, Parts 3, 1900., 1-2, 1901.
- . *American Academy of Political and Social Science, Annals*, Vols. XIX, Nos. 1-3., XX, 1-3.
- . *American Philosophical Society, Proceedings*, Vol. XL, Nos. 165-167; *Transactions, New Series*, Vol. XX, Part 2.
- . *Franklin Institute, Journal*, Vols. CLIII, Nos. 1-4, 6., CLIV, 1-5.
- . *University of Pennsylvania, Bulletin, New Series*, No. 9., 1st Series, No. 1, Part I; *Catalogue*, 1901-1902; *Contributions from the Botanical Laboratory*, Vol. II, No. 2; *Contributions from the Zoological Laboratory*, 1900; Report, 1900-1901.
- SAN FRANCISCO. *Californian Academy of Sciences, Occasional Papers*, No. VII; *Proceedings, Botany*, 3rd Series, Vols. I, Nos. 10., II, 1-2; *Geology*, Vol. I, Nos. 7-9; *Math. Phys.*, Vol. I, Nos. 5-7; *Zoology*, Vol. II, Nos. 1-6.
- ST. LOUIS. *Academy of Science, Transactions*, Vols. X, Nos. 9-11., XI, 1-5.
- . *Missouri Botanical Garden, Report*, 1901.
- WASHINGTON. *Academy of Sciences, Proceedings*, Vols. III, pp. 569-612., IV, 1-573.
- . *American Historical Association, Report*, Vols. I-II., 1899, I-II., 1900.
- . *Biological Society, Proceedings*, Vols. XIV, pp. 181-194., XV, 1-234.
- . *North American Fauna*, No. 22.
- . *Philosophical Society, Bulletin*, Vols. XIII., XIV, pp. 1-178.

WASHINGTON. *Smithsonian Institution, Annals of the Astrophysical Observatory*, Vol. I; *Miscellaneous Collections*, Vols. XLI, Nos. 1253 and 1258., XLII-XLIII; Report, 1899-1900.

———. *United States Geological Survey, Bulletin*, Nos. 163-176; Report, Parts I, VI, and VI (Continued), 1899-1900.

———. *United States National Museum, Proceedings*, Vol. XXII; Report 1897, Part 2., 1899.

SOUTH AMERICA.

Argentine Republic.

BUENOS AIRES. *Academia Nacional de Ciencias, Boletín*, Tome XVII, No. 1.

———. *Museo Nacional, Comunicaciones*, Tome I, Nos. 7, 10.

Brazil.

PARA. *Museu Paraense de historia natural e ethnographia*, Boletín, Tome III, No. 2.

RIO DE JANEIRO. *Observatório do Rio de Janeiro, Anuario*, 1901; *Boletín Mensal*, May—August, 1900., January—December, 1901., January—March, 1902.

Chili.

VALPARAISO.—*Deutscher Wissenschaftlicher Verein zu Santiago de Chile, Verhandlungen*, Band IV, Heft 5.

Uruguay.

MONTEVIDEO. *Museo Nacional, Anales*, Tome IV, Part I.

AUSTRALIA.

New South Wales.

SYDNEY. *Linnean Society of New South Wales, Abstract of Proceedings*, November, 1899., March—May, July—December, 1900., May—October 1901., April—June, 1902; *Journal and Proceedings*, Vol. XXXV; *Proceedings*, Vols. XXVI, Parts 2-4., XXVII, 1-2.

———. *Science*, Vols. IV, Nos. 11-12., V, 1-10.

New Zealand.

WELLINGTON. *New Zealand Institute, Transactions and Proceedings*, Vol. XXXIV.

———. *Polynesian Society*,—*Journal*, Vols. X, Nos. 4., XI, 1-3.

Queensland.

BRISBANE. *North Queensland Ethnography*, Bulletin, Nos. 1-4.

———. *Queensland Agricultural Journal*, Vols. IX, Parts 1-6., X, 1-6.

BRISBANE. *Royal Society of Queensland*, Proceedings, Vol. XVII, Part I.
South Australia.

ADELAIDE. *Royal Geographical Society of Australia*, Proceedings, Vols. IV-V.

Victoria.

MELBOURNE. *Royal Society of Victoria*, Proceedings, New Series, Vols. XIV, Parts 2., XV, 1.

Sandwich Islands—Hawaii.

HONOLULU. *Bernice Pauahi Bishop Museum*, Memoirs, Vol. I, No. 4; Occasional Papers, Vol. I, Nos. 3-5.

BOOKS AND PAMPHLETS.

ABEL, O. *Les Dauphins longirostres du Boldérien*. 1901.

Aberdeen University. *Studies*. Nos. 4-5.

Académie Impériale des Sciences de St. Pétersbourg. *Das Kudatku Bilik des Jusuf Chass-Hadschib aus Bâlasagn, von Dr. W. Radloff. Theil II; Das Mânava Crauta-Sûtra, von Dr. F. Knauer. Buch II; Die Irtysh-ostjaken und ihre Volkspoesie, von S. Patkanov. II. Teil; Schedae ad Herbarium Florae Rossicae. Nos. I-II; Versuch eines Wörterbuches der Türk-Dialecte, von Dr. W. Radloff. Zwölfte Lieferung.*

Agra Jain Itihas Society. *Jain Itihas series*. No. 1.

Ancient India as described in classical literature. Translated and copiously annotated by J. W. M'Crindle, 1901.

Archæological Survey. *Reports*. Bengal, 1901-1902; Bombay, 1901-1902; Madras, 1901-1902; Punjab, 1901-1902.

Army List (India), December, 1901., January to October, 1902.

Australian Museum. *Report*. 1899.

AZOULAY, DR. L. *L'Ère nouvelle des sons et des bruits*. 1900; *Sur la constitution d'un musée phonographique*. 1900; *Sur la manière dont a été constitué le musée phonographique de la Société d'Anthropologie*. 1901.

BARBIER, ANT.-ALEX. *Dictionnaire des ouvrages anonymes*. Tome I-IV.

BATTELL, A. *The Strange Adventures of Andrew Battell*. Edited by E. G. Ravenstein. 1901. (Hakluyt Society.)

Bernice Pauahi Bishop Museum, Honolulu. *Fauna Hawaiiensis*. vols. I, parts 3., II, 5., III, 1.

BLANFORD, W. T. *The Distribution of Vertebrate Animals in India, Ceylon, and Burma*. 1901; *Notes on Ariophanta, Xestina, Nilgiria, and Euplecta, with lists of species*. 1901.

- BÖHTLINGK, OTTO. Grammatische Absonderlichkeiten im Aitarejabrâhmana, 1900; Pflügten die Inder Töchter auszusetzen? 1900.
- Botanical Survey of India. Report. 1901-1902.
- British Association. Handbook of Local Industries of Glasgow and the West of Scotland. 1901; Report. 1901.
- The British Guiana Medical Annual. 1902.
- British Museum. Catalogue of Fossil Fishes. Part IV; Catalogue of the Lepidoptera Phalænæ. Vol. III, and plates; Hand-List of Birds. Vol. III; A monograph of the Culicidae of the world. Vols. I-II, and plates.
- BUCKTON, G. B. A Monograph of the Membracidae. Part III.
- BÜHLER, G. On the origin of the Indian Brâhma Alphabet. 1898.
- Bureau of American Ethnology. Report. Parts I., 1895-96., I-II., 1896-97.
- CABATON, A. Nouvelles recherches sur les Chams. 1901.
- CADIÈRE, L. Phonétique annamite. 1902.
- CAMERON, P. Descriptions of new Genera and Species of Hymenoptera from the Oriental Zoological Region (Ichneumonidae, Fossorees and Anthophila). 1902.
- CAMPBELL, A. A Santali-English Dictionary. Part III.
- Cape of Good Hope Geological Commission. Report. 1898-1900.
- Carnegie Museum. Publications. Nos. 6-7.
- Census of India, 1901. Vols. IV and IV A. Assam. Parts 1-2; Vols. VI, VI A and VI B. Bengal. Parts I-III; Vol. XVII. Punjab. Part I.
- Charaka-Samhita. Translated into English by Avinash Chandra Kavi-ratna. Parts 25-26.
- Chicago Board of Trade. Report. 1901.
- Civil Lists:—Assam, January to October, 1902; Bengal, January to October, 1902; Burma, January to October, 1902; Central Provinces, January to October, 1902; Coorg, October, 1901., January to October, 1902; Hyderabad Administration, January to October, 1902; India, January to July, 1902; Mysore, January, 1902; Punjab, January to October, 1902; Sind, January to July, 1902; United Provinces of Agra and Oudh, January, April and October, 1902.
- Colombo Museum Library. Catalogue of Pali, Sinhalese, and Sanskrit Manuscripts. 1901.
- COOKE, T. The Flora of the Presidency of Bombay. Part I.
- Dagh-Register gehouden int Casteel Batavia vant passerende daer ter plaetse als over geheel Nederlandts-India. Anno 1673-74.
- DAS, SARAT CHANDRA. Journey to Lhasa and Central Tibet. 1902.

- Deutsche Gesellschaft für Natur-und Völkerkunde Ostasiens. 1873-1898. Festschrift zur Erinnerung an das 25 jährige Stiftungsfest.
- DOOLITTLE, C. L. The Variation of Terrestrial Latitude. 1897.
- Final Report of the revision of settlement of the Montgomery District. 1892-99.
- FLORENZ, DR. K. Japanische Mythologie. 1901.
- FOSTER, W. The Founding of Fort St. George, Madras. 1902.
- FRANCKE, A. H. Ladakhi Songs. 1st, 2nd and 3rd series. 1899; The Spring Myth of the Kesar Saga. 1902; Der Wintermythus der Kesarage. Ein Beitrag zur Kenntnis der vorbuddhistischen Religion Ladakhs. 1902.
- Genera Insectorum publiés par P. Wytsman. Nos. 1-6.
- Geological Survey of Canada. Catalogue of Canadian Birds. Part I; Catalogue of Canadian Plants. Part 7; Catalogue of the Marine Invertebrata of Eastern Canada. 1901; Index to Reports. 1863-1884.
- GHULAM AHMAD, MIRZA. Jihad and the British Government. 1902.
- Giessen University. Fifteen Dissertations on Law. 1897-1901; One hundred Dissertations on Medicine. 1897-1901; Seventy-six Dissertations on Philosophy. 1897-1901; Five Dissertations on Theology. 1900-01; Renatus Karl Frhr. v. Senckenberg, 1751-1800. Festschrift der Grossherzoglichen Ludwigsuniversität uz Giessen verfasst von Professor Dr. Herman Haupt. 1900.
- GILSON, G. Exploration de la mer sur les côtes de la Belgique en 1899.
- Glasgow International Engineering Congress, 1901. Proceedings. Section I, Railways., Section II, Waterways and Maritime Works.
- Glasgow University. Catalogue of Greek coins in the Hunterian Collection. Vol. II.
- Great Trigonometrical Survey of India. Synoptical Volume XXIX.
- HAECKEL, E. Kunstformen der Natur. Nos. 6-7.
- HALKETT, S. and LAING, J. A Dictionary of the Anonymous and Pseudonymous Literature of Great Britain. Vols. I-IV.
- HILL, S. C. An Abstract of the early records of the Foreign Department. Part I. 1756-1762; List of Europeans and others in the English Factories in Bengal at the time of the Siege of Calcutta in the year 1756.
- A History of Sind. Translated from Persian Books by Mirza Kalichbeg Fredunbeg. Vol. II.
- HOLLAND, T. H. The Kanets of Kulu and Lahoul, Punjab: a study in contact-metamorphism. 1902.

- HÜBNER, J., and GEYER, C. Exotische Schmetterlinge publiés par W. F. Kirby and P. Wytzman. Parts 41-42.
- HUNTER, W. W. A Comparative Dictionary of the Languages of India and High Asia. 1868; A History of British India. Vol. II. Imperial Library, Calcutta. Press List of ancient documents preserved. 1759.
- Indian Museum. An account of the Indian Triaxonia collected by the Royal Indian Marine Survey Ship "Investigator," by F. E. Schulze. 1902; Report. Vol. XXXII, with Index.
- Inspector-General of Civil Hospitals, Bengal. Catalogue of Books in the office Library. Parts 1-2.
- Johns Hopkins University, Baltimore. Fifty-three Dissertations on Philosophy. 1898-1901.
- JOHNSTONE, P. DE LACY. Muhammad and his Power. 1901.
- JUYNBOLL, DR. H. H. Kawi-Balinesesch-Nederlandsch Glossarium op het oudjavaansche Rāmāyana. 1902.
- Kaccayana's Pali Grammar. Edited in Devanagari character and translated into English by Satis Chandra Acharyya, Vidyabhusana. 1901.
- Kgl. bayerische Akademie der Wissenschaften, München. Die akademische Kommission für Erforschung der Urgeschichte und die Organisation der urgeschichtlichen Forschung in Bayern durch König Ludwig I., von J. Ranke. 1900; Rückblick auf die Gründung und die Entwicklung im 19. Jahrhundert, von Dr. Karl A. von Zittel. 1899; Ueber die Hilfsmittel, Methoden und Resultate der Internationalen Erdmessung, von Dr. phil. Karl v. Orff. 1899.
- Kodaikánal and Madras Observatories. Report. 1901.
- LAJONQUIERE, E. L. DE. Monuments du Champa et du Cambodge. 1901.
- Letters received by the East India Company from its servants in the East. Edited by W. Foster. Vol. VI.
- Die Litteraturen des Ostens in Einzeldarstellungen. Band VI. Persische Litteratur, von Dr. Paul Horn. Arabische Litteratur, von Dr. C. Brockelmann.
- Lucknow Government Botanical Gardens. Report. 1902.
- Lucknow Provincial Museum. Report. 1900-1902.
- MACDONALD, REV. K. S. Durga. The Devi-Mahatmya. 1901; The Saktas and Tantras. 1901; The Tantra in Mysore and South India. 1901; The Tantra in the North-West Provinces and Oudh. 1901; Whether Tantra or Veda in Bengal? 1901.
- Madras Government Epigraphist. Report. 1900-1902.
- Madras Government Museum and Connemara Public Library. Report. 1901-1902.

- Madras Government Oriental Manuscripts Library. A Descriptive Catalogue of Sanskrit Manuscripts. Vedic Literature, Vol. I., Part 1.
- A Magyar Tudományos Akadémia. Arja és Kaukázusi elemek a finn-magyar nyelvekben. I Kötet.
- Marine Survey of India. Administration Report. 1900-1901 and 1901-1902; Programme. 1902-1903.
- MENDAÑA, ALVARO DE. The discovery of the Solomon Islands by Alvaro de Mendaña in 1568. Translated and Edited by Lord Amherst of Hackney and Basil Thomson. Vols. I-II. (Hakluyt Society).
- Meux (Lady) Manuscripts, Nos. 2-5. The Miracles of the Blessed Virgin Mary and the life of Hanna (Saint Anne) and the Magical Prayers of Aheta Mikael, edited with English translations, etc., by E. A. Wallis Budge. 1900.
- Meteorological Department of the Government of Bengal. Administration Report. 1901-1902.
- Meteorological Department of the Government of India. Administration Report. 1901-1902; Memorandum on Snowfall. 1901.
- MITRA, SABAT CHANDRA. Behari Omens from the Chirping and Falling of Lizards. 1902.
- MOELLENDORFF, P. G. VON. Classification des dialectes chinois. 1900.
- MURDOCH, JOHN. India's three great educational needs and how to provide for them. 1902.
- El Museo de Historia Natural de Valparaiso durante el año de 1901. Memoria presentada al Sr. Ministro de Instrucción Pública don Rafael Balmaceda por el C. E. Porter. 1902.
- Museu Paraense de Historia Natural e Ethnographia. Album de aves amazonicas. No. 1.
- Mysore Archæological Series. Epigraphia Carnatica. Vol. V, Parts I-II.
- Mysore Geological Department. Memoirs. Vol. I; Report of the Chief Inspector of Mines. 1901.
- Nagari-Pracharini Sabha, Benares. Report. 1893-1902.
- Naturhistorische Gesellschaft in Nürnberg. 1801-1901. Festschrift den Gönnern, Freunden und Mitgliedern der Gesellschaft als Festgabe dargeboten am 27 Oktober 1901.
- NIEDERLEIN, G. Ressources végétales des colonies françaises. 1902.
- Den Norske Nordhavs-Expedition, 1876-1878. No. XXVIII. Zoologi. Mollusca III. 1901.
- OMAR KHAYYÁM. The Quatrains of Omar Khayyám. Persian Text with an English verse translation by E. H. Whinfield. Second Edition. 1901. (Trübner's Oriental Series).

- Pennsylvania University. Boardman Lectureship in Christian Ethics. No. 1. 1900; Twelve Theses on Philosophy. 1896-98.
- PULLÉ, F. L. Studi italiani di filologia indo-iranica. Vol. IV, and plates.
- Queensland Department of Agriculture. Report. 1900-1901.
- QUÉRARD, J. M. Les Supercheries littéraires. Tome I-III.
- Report of Proceedings of the Central Indigenous Drugs Committee of India. Vol. I.
- Report on the Material Progress of the Punjab. 1891-1901.
- Report on Plague inoculation at Hubli. 1898.
- Report on Plague operations carried out in the Poona Cantonment for the half-year ended 31st December, 1900.
- RILEY, J. W. The Founder of Mormonism. 1902.
- Royal Society, London. Catalogue of Scientific Papers. Vol. XII; International Catalogue of Scientific Literature. D. Chemistry, Part I., M, Botany, I.; Reports to the Evolution Committee: No. 1; Reports to the Malaria Committee. 4th to 7th series.
- SADAJIRO SUGIURA. Hindu Logic as preserved in China and Japan. 1900.
- Saharanpur and Mussoorie Government Botanical Gardens. Report. 1901-1902.
- SARKAR, JADUNATH. The India of Aurangzib. 1902.
- The Satrunjaya Mahatmyam and Pilgrimage to Parsvanath in 1820. Edited by James Burgess. 1902.
- SCHELLING, F. E. Ben Johnson and the classical school. 1898.
- SCHWALLY, DR. F. Ibrāhīm ibn Muḥammad Al-Baihaqī Kitāb Al-Maḥāsin Val-Masāvi. 1902.
- Scientific Memoirs by Officers of the Medical and Sanitary Departments of the Government of India. New Series. No. 1.
- SEWARD, A. C. La Flore wealdienne de Bernissart. 1900.
- SEWELL, R. A Forgotten Empire. Vijayanagar. 1900.
- SMITH, H. Pastoral Influence in the English Drama. 1898.
- SMITH, H. G. Rhopalocera Exotica. Parts 57-59.
- SPECHT, E. Du déchiffrement des monnaies sindo-epthalites. 1901.
- St. Xavier's College Observatory, Calcutta. Meteorological Observations. July-December, 1900.
- STEBBING, E. P. Departmental Notes on Insects that affect Forestry. No. 1.
- Survey of India. General Report. 1900-1901; Professional Paper. No. 5; Trigonometrical Branch. Account of the Operations. Vol. XVI.
- Takhtasingji Observatory, Poona. Publication. Vol. I.

- THEOBALD, R. M. *Shakespeare Studies in Baconian light.* 1901.
- United States Board on Geographic Names. *Second and Special Reports.* 1901.
- United States Geological Survey. *Descriptions of the Topographical Maps, 1892-1901; Monographs. Vols. XXXII, Part 2., XXXIII, XXXIV, XXXVI-XL; Report. 1897-98, Parts II, III, V, and Atlas., 1898-99, I-IV, V and Maps, VI and VI (contd.) VII., 1899-1900, II-IV.*
- VARLEY, E. J. *A Short Hand-Book for the Mavchi and Pavra Dialects.* 1902.
- VARMA, HARNAM DAS. *An Account of Khatris.* 1901.
- VIDYĀBHŪṢAṆA, SATIS CHANDRA. *Mahāyāna and Hinayāna.* 1900.
- Walsh, J. H. T. *A History of Murshidabad District.* 1902.
- Whitaker's *Almanack.* 1902.
- WILDEMAN, É. DE. *Les Caféiers.* 1901; *Observations sur les Apocynacées à latex.* 1901.
- WILKENS, F. H. *Early Influence of German Literature in America, 1762-1825.*
- The World's History.* Edited by Dr. H. F. Helmolt. Vol. I.
- Yale University. *Catalogue of the Officers and Graduates. 1701-1901; Obituary Record of Graduates ending June 1902; Report. 1901-1902; Report of the Librarian. 1900-01; Studies in English. No. 12.*
- [Also:] *Annual Government Reports on Administration (5); Asylums and Reformatories (3); Customs (1); Dispensaries and Medical Institutions (3); District Boards (1); Education (2); Emigration (2); Excise (1); Forest (1); Jails and Police (4); Land Revenue Settlement, etc. (3); Legal and Judicial (3); Municipal (1); Private Estate (1); Registration (2); Salt (1); Sanitation (4); Tide (1); Trade and Traffic (3); Vaccination (3); Wrecks and Casualties (1); and 42 Parliamentary Blue Books.*

PROCEEDINGS
OF THE
ASIATIC SOCIETY OF BENGAL.
FOR MARCH, 1903.

The Monthly General Meeting of the Society was held on Wednesday, the 4th March, 1903, at 9 P.M.

COLONEL T. H. HENDLEY, C.I.E., Vice-President, in the chair.

The following members were present:—

Major W. J. Buchanan, I.M.S., Mr. I. H. Burkill, Babu Girindra Nath Dutt, Mr. E. V. Gabriel, Mr. H. E. Kempthorne, Mr. C. Little, Mr. W. S. Meyer, Mr. J. Nicoll, Mr. A. Pedler, Pandit Yogesa Chandra Sastree, Mahamahopadhyaya Haraprasad Shastri, Dr. C. Schulten, Babu Chandra Narayan Singh, Mr. E. P. Stebbing, Pandit Satis Chandra Vidyabhusana, Mr. C. R. Wilson.

The minutes of the last meeting were read and confirmed.

Ten presentations were announced.

Mr. Charles Gilbert Rogers, F.L.S., and Captain Andrew Thomas Gage, I.M.S., were balloted for and elected Ordinary Members.

It was announced that Mr. J. C. Mitra had expressed a wish to withdraw from the Society.

The General Secretary reported the death of Professor Edward Bayles Cowell and Sir George Gabriel Stokes, Honorary Members of the Society.

At the request of the Council Mahamahopadhyaya Haraprasad Shastri contributed an obituary notice of Professor Cowell, and the Hon. Dr. Asutosh Mukhopadhyaya of Sir George Stokes.

E. B. Cowell, Esq., M.A., came to India as Professor of the Presidency College, Calcutta, and remained in Calcutta till the year 1864. He was Professor of History in that College, and Principal of the Sanskrit College. His notes brought the History of India by Elphinstone up to date, and the Sanskrit College flourished greatly under his fostering care. He studied *Alaṃkāra* and *Nyāya* in the Classes, and there are still many old students of the College who remember him sitting on the benches listening attentively to the Professors and taking notes. But he derived his knowledge of Hindu Philosophy mainly from our illustrious countryman Mahamahopadhyaya Maheshchandra Nyayaratna, C.I.E. Though as Principal he had no teaching-work assigned to him, he often taught English to students, and gave prizes and presents to smart Sanskrit pupils. He left some money for the foundation of a Grammar Scholarship in the Sanskrit College.

He was for years Secretary of the Asiatic Society of Bengal, and edited several Sanskrit works for the *Bibliotheca Indica* Series. I still hold a letter written by him to my brother Nandakumar Tarkaratna who was joint editor of *Vaiçeṣika Darçana* in this Series. Till the last year of his life he corresponded with his numerous Indian friends on literary topics and his letters breathe a spirit of freshness and vivacity rare in that old age.

HARAPRASAD SHASTRI.

The following is an extract from an obituary notice written by Prof. C. Bendall for the *Athenæum* and reprinted in the *Journal of the Royal Asiatic Society*, April, 1903, on pages 419 ff:—

Cowell was born at Ipswich, January 23rd, 1826, and was educated at Ipswich School. During his schooldays he used to read in the Public Library, and there in 1841 came on Sir William Jones' works, reading especially the translation of the Sanskrit play "Sakuntala." "I well remember," he said, in a memorable address given to the Royal Asiatic Society in 1898, "the joy of finding a Persian Grammar among his works, and I soon learned the characters.....and began to study the anthology." From this book, he added, he gave, "thirteen years afterwards,.....FitzGerald his first lesson in the Persian alphabet." In the same year he saw Professor H. H. Wilson's "Sanskrit Grammar" advertised, which he bought not long after. "Of course, I found Sanskrit too hard," he continued, "but I returned to Persian meanwhile, reading alone the "Shāhnāmah" and Hāfiz." His first guide in Oriental studies was Colonel Hockley, an old Bombay officer settled in Ipswich, with whom he read *Jāmi*. On leaving school he at first entered into commerce under his father, and it was in course of business visits to London that he formed the acquaintance of H. H.

Wilson, then Librarian of the India House. He gradually acquired considerable proficiency in Sanskrit; for in 1851 he published a translation of Kālidāsa's play "Vikramorvaśi." His actual systematic study under Wilson commenced, however, only in 1853, as we learn from his address to the Cambridge Electoral Roll. In 1847 he married Miss Elizabeth Charlesworth, and in 1850 entered the University of Oxford, being then obliged, as a married man, to enter a hall (Magdalen Hall), not a College. He took honours both in Classics (First Class, Final 1854) and in Mathematics, and the University somewhat tardily acknowledged his eminence by the honorary degree of D.C.L. in 1896. In 1856 he was appointed Professor of History at Presidency College, Calcutta, and in 1858 also Principal of the Sanskrit College in the same City. Here he remained till 1864, and laid the real foundation of his reputation as an Orientalist, the happy combination of wide and deep Western Culture with the concentrated traditional lore of the Eastern pandit.

In 1867 Cowell was elected to the Chair of Sanskrit, then just established at Cambridge, where the rest of his life was spent, both as a University Professor and a Fellow of Corpus Christi College (1874). Here he taught not only Sanskrit of varied periods and styles (*e.g.*, Indian Philosophy, thirty years ago hardly known in the Continental Universities), but also Comparative Philology and Persian. These subjects have now been provided by the University with separate teachers, and the same has been done for elementary Sanskrit, and justly, so as to economize the lavish expenditure of precious time that Cowell would bestow as freely on the beginner as on the advanced student. His Pali classes, started some five and twenty years ago, have resulted in the Cambridge translation of the Jātaka-book, under his guidance. More recently he read Zend with several pupils.

His own mental history may be illustrated by some of his chief works. To the Calcutta period belong his two editions and translations of Upaniṣads, and the text and translation of the difficult work of Indian logic, the "Kusumāñjali." Many native scholars were at the same time encouraged to edit texts which appeared with English introductions by the Professor. Similarly, on his return to England, his first Cambridge pupil, Palmer Boyd, was induced to translate the newly discovered Buddhist drama, 'Nāgānanda, which appeared with an introduction by Cowell. To the same time belongs his new edition of the Prakrit Grammar of Vararuci, of which he had issued a first edition in Oxford days. Two important works published in Cambridge days represent the continuance of researches in Indian philosophy begun in India. These are the "Aphorisms of Śāṅḍilya" (1878), and the Sarvadarśana-saṅgraha," translated (portions also by Mr. A. E. Gough) in 1882.

Among the more recent of his important works were his text and translation of the "Buddhacarita" (1893-4), a publication which has created great interest amongst critical scholars abroad. Most characteristic, too, was his work for and with others. He more than once accepted the task, at times ungrateful, of finishing works of deceased scholars. Such were Wilson's version of the "Rigveda" (finally completed by his pupil, Mr. W. F. Webster), and the huge work of Mādhava left incomplete by Goldstücker. His chief works done with others were: "The Black Yajurveda" (edited partly with Dr. Rœer), 1858-64; Catalogue of Buddhist Sanskrit MSS. (with Dr. Eggeling), 1875; "Divyavadāna," edited with the late B. A. Neil, 1886; "Harṣacarita," translated with Mr. F. W. Thomas, 1897. Lastly, let it never be forgotten that it was he, the scholar, known to the few, who introduced Omar Khayyam to FitzGerald, whose version is known wherever English literature is known.

SIR GEORGE GABRIEL STOKES.

Sir George Gabriel Stokes was born on the 13th August, 1819, at Skreen, Sligo, of which parish his father was Rector. At the age of sixteen, he was placed in Bristol College, of which Dr. Jerrard was Principal. He entered Pembroke College, Cambridge, in 1837, graduated in 1841 as Senior Wrangler and First Smith's Prizeman, became Fellow of his College in the same year, and in 1849, succeeded King as Lucasian Professor of Mathematics in the University of Cambridge. He continued to occupy Newton's chair till the day of his death which took place on the 1st February, 1903. Stokes was elected a Fellow of the Royal Society in 1851, acted as its Secretary from 1854 to 1885, as its President from 1885 to 1890, and as its Vice-President down to 1892. The Royal Society awarded him the Rumford Medal in 1852 and the Copley Medal in 1893. The Cambridge Philosophical Society awarded him its first Hopkins Prize, in 1867. He represented the University of Cambridge in Parliament from 1887-91.

It would be impossible within the limits of a brief obituary notice to give any adequate account of the scientific work of Sir George Stokes and its far-reaching consequences. There was no department of physical science, except electricity, which was not enriched by his brilliant original investigations. Students of hydro-dynamics can scarcely realize what advance was made by his great paper on the viscosity of fluids, published just sixty years ago. This was followed seven years later, by the paper on the effect of the internal friction of fluids on the motion of pendulums, which illustrates the wonderful mathematical resources of the author and his capacity for their application to the problems of physical science. Between these two papers came the epoch-making paper on the theory

of oscillatory waves, containing a masterly investigation of the motion of steep deep-seawaves. Of his contributions to the theory of light, the most important are the Memoir on the dynamical theory of diffraction published in 1849, and the Memoir on the refrangibility of light communicated to the Royal Society in 1852. The first of these papers contains the mathematical theory of the propagation of motion in a homogeneous elastic medium, followed by an elaborate experimental investigation establishing that the plane of polarization is the plane perpendicular to the direction of vibrations in plane-polarized light. The second paper contains a description of his now famous discovery of *fluorescence*. But although his contributions to hydro-dynamics, elasticity of solids and fluids, wave-motion in elastic solids and fluids, and the theory of optics are of enduring value, it would be a mistake to suppose that his contributions to pure mathematics were less original or less important. As an illustration we may refer to the theorem, now known as Stokes' theorem, which enables us to convert surface-integrals into line-integrals; it was first set as an examination question in a Smith's Prize-paper and is of as wide an application as the theorem of Green. Reference may also be made to his paper on definite integrals published in 1850; the theorems contained in this paper admit of extremely interesting applications to the theory of the rainbow.

The University of Cambridge undertook the publication of his collected mathematical and physical papers many years ago; the first volume was published in 1880, the second in 1883, and the third in 1901. These volumes bring us down to 1852. The Royal Society Catalogue shows that up to 1883, Stokes had published 106 original papers. It is to be hoped that a complete collection of the remaining papers will be speedily re-published.

Stokes was an Honorary Member of the most famous scientific societies of Europe and America which felt honoured by associating his name with themselves. He was elected an Honorary Member of this Society in 1894.

ASUTOSH MUKHOPADHYAYA.

The Chairman announced that Mr. E. P. Stebbing had been appointed to officiate as the Natural History Secretary of the Society during the absence of Captain L. Rogers, I.M.S.

The General Secretary read the names of the following gentlemen who had been appointed to serve on the various Committees for the present year:—

Finance and Visiting Committee.

Dr. T. Bloch, Mr. E. A. Gait, Mr. H. H. Risley, Mahamahopadhyaya

Haraprasad Shastri, Dr. E. D. Ross, Hon. Dr. Asutosh Mukhopadhyaya, Mr. J. Bāthgate, Mr. H. E. Kempthorne.

Library Committee.

Dr. T. Bloch, Mr. D. Hooper, Mr. C. W. McMinn, Hon. Dr. Asutosh Mukhopadhyaya, Mahamahopadhyaya Haraprasad Shastri, Mr. E. Thornton, Mr. H. H. Mann.

Philological Committee.

Maulavi Ahmad, Dr. T. Bloch, Babu Pratapa Chandra Ghosh, Shams-ul-Ulama Mahomed Shaikh Gilani, Hon. Dr. Asutosh Mukhopadhyaya, Major D. C. Phillott, Pandit Satyavrata Samasrami, Mahamahopadhyaya Haraprasad Shastri, Mahamahopadhyaya Chandrakanta Tarkalankara, Dr. G. Thibant, Babu Nagendra Nath Vasu, Mr. A. Venis, Dr. E. D. Ross, Mr. E. A. Gait, Pandit Satis Chandra Vidyābhūṣaṇa.

Coins Committee.

Lt.-Col. D. S. E. Bain, Dr. T. Bloch, Hon. Mr. J. A. Bourdillon, Babu Panchanan Mukerjee, Mr. E. Thurston, Mr. M. J. Seth, Mr. H. N. Wright.

Mr. Burkill exhibited on behalf of Mr. J. T. Tyson a dagger found in the soil of virgin forest near Chalsa, in the Bengal Duars. The origin of the dagger is quite unknown. It is now $14\frac{3}{4}$ inches long and before rust ate the tip off was probably about an inch longer. The blade is $6\frac{1}{2}$ inches long, has been two-edged and has had a median line down each face. It is $1\frac{1}{4}$ inches broad at the broadest part. Where it begins to narrow to fit into the hilt two holes have been bored through the blade; these holes are $\frac{1}{4}$ inch long, $\frac{1}{8}$ inch broad, and $\frac{3}{4}$ inch apart.

The hilt is very small being only $3\frac{1}{2}$ inches long; it is in section elliptic, the long axis $\frac{1}{2}$ inch at the middle of the grip and the short $\frac{1}{2}$ inch. The ends of the hilt are wider than the middle. The blade and the hilt are in the same straight line. The finish of the hilt is good, but the blade fits very badly into it and a great deal of packing must have been put into the joint of the two. The hilt, Mr. D. Hooper finds, is made of an alloy of copper and tin: and the only ornamentation present consists of two simple lines round it.

The following papers were read:—

1. *The Sarāka caste of India identified with the Sērīkē people of Central Asia.*—By SATIS CHANDRA VIDYĀBHŪṢAṆA, M.A., M.R.A.S.

(Abstract.)

The people known as Sarāka or Sārāka live in West Bengal, Chota Nagpur, Orissa, and even in Assam. The celebrated ethnologist, Mr.

H. H. Risley, was perhaps the first scholar who gave a systematic account of the Sarāka caste which, according to him, is a Hinduised remnant of the early Jain people. Mr. Streatfield (Deputy Commissioner of Ranchi), observes that the Sarāks are purely Aryans in blood and seem originally to have been Jains though, however, they do now worship Hindu gods. Mr. E. A. Gait, who regards them as Buddhists, has given an elaborate account of them in the last Census Report of Bengal. Mahāmahopādhyāya Haraprasad Shāstri says that they are reciters of "Baudh mantras" or Buddhist formulas. In the Brahma-vaivarta-purāṇa they are regarded as a mixed Hindu caste born from a father who was a Mleccha weaver and a mother who was a Hindu weaver. Taking their own evidence we find that they call themselves Hindus, have priests of their own caste and also occasionally employ Brahmans. The Sarākas of Chota Nagpur as a rule are well-to-do land-holders and money-lenders, while those of West Bengal and Orissa are mostly excellent weavers. Dr. Dalton, in his Descriptive Ethnology of Bengal, mentions an Assamese hill tribe called Sarāka, that is a branch of the Hill Miris inhabiting the north of Bordoloni on both banks of the hill course of the Subanshiri river. They entered Assam by plundering some of the villages there, obtained under the Assam Raj a sort of prescriptive right to levy black-mail, and now receive annually from the British Government an equivalent in the form of a money-payment. Their religion consists in the belief in sylvan deities.

In the North-Western Provinces and Central India there are classes of people called Saraogies. They live in great number in Muzaffernagar, Mainpuri, Benares, Jaipur, Hoshangabad, &c. They are very rich and influential, and are Jains by religion.

The scholars, whose opinions have been quoted above, almost unanimously hold that Sarākas and Saraogies are identical in race, and that these two names are mere corruptions of *Srāvaka* which is a Jain or Buddhist technicality for a religious devotee. While expressing my indebtedness to the abovementioned scholars for the interesting accounts they have given of the Sarāka and Saraogie castes, I beg altogether to differ from them in respect of the origins of the castes themselves.

In my humble opinion neither the term Sarāka nor Saraogie can be derived from *Srāvaka*. The Pali form of *Srāvaka* is *Sāvaka*, which can hardly assume the form Sarāka or Saraogie in which *ra* is so prominent. I believe the name *Sarāka* is derived from *Sārikē*, which was a vast province in Central Asia. The chapter which Ptolemy has devoted to *Sārikē* has given rise to various unprofitable controversies. The land of *Sārikē* is variously supposed to have lain in one or other of the many countries that intervene between Eastern Turkistan in the north and

the province of Pegu in the south. Scholars now generally maintain that Sērīkē comprised the northern parts of China or those which travellers and traders reached by land. The ancestors of Indian Sarākas did therefore probably originally come here from Northern China. The Sarākas of India like the people of Northern China are noted for their skill in weaving. In Sanskrit literature such as in the works of Kālidāsa and others, *Cināṇṇuka* or Chinese cloth, is a general name for all soft silken cloths. It is scarcely necessary for me to state here that the intercourse between the Indians and Chinese has existed since a very remote antiquity. According to the Mahābhārata (2-26-9) Bhagadatta, King of Assam, sent Kirāta and Chinese soldiers to the great war of Kurukṣetra, near Delhi. Kālidāsa in his *Raghuvaṃsa* states that Raghu, King of Ayodhyā, set out for conquest through the north-western frontier of India, conquered many people such as Utsava-Samketas, or U-tsang tribe in Central Tibet and came back to his capital through the north-eastern frontier crossing the Brahmaputra or Sangpo river in Assam. But perhaps the most intimate relation between India and China grew up with the establishment of Buddhism in the latter country. Between 2nd and 10th centuries A.D., hundreds of Indian missionaries went to China and Chinese pilgrims came to India. The Sarākas were in all probability traders who followed the land-route previously trodden over by religious pilgrims. The period of their migration to India was probably the 12th century A.D.

The Saraogies, I believe, are descended from the Sorgæ mentioned by Megasthenes (Fragm. LVI) and Pliny (Hist. Nat. VI) in their list of the Indian races. The two cities possessed by the Sorgæ are located by Megasthenes near the base of the Caucasus Mountain along the northern frontier of Afghanistan. The Sorgæ were perhaps the same as the people living in the city of Sariga which, according to Ptolemy, was situated in Area in the north-western part of Afghanistan. In the sacred books of the Jains themselves it is found that Acharyya Jina Sena, 643 years after the death of Mahāvira, *i.e.*, 116 in A.D., converted to Jainism 82 Rajput villages and two villages of Vaiśyas at a place now called Khandela near Sikar in the north of Jaipur. The people who were thus converted were known under the name of Saraogies. Believing in this account supplied by the Jains themselves we may conclude that the people called Sorgæ that, in the time of Megasthenes in the 4th century B.C., lived in the north-western part of Afghanistan, advanced in the 2nd century A.D. so far down as up to the north of Jaipur in Rajputana and became designated as Saraogies.

I have not been able to trace any kinship of the Sarākas of West Bengal, Chota Nagpur, Orissa and Assam, with the Saraogies of North-

Western Provinces and Central India. In my opinion Sarākas and Saraogies are quite different people. The former who belong to the Mongolian race, entered India about the 12th century A.D. through the north-eastern frontier and introduced much improvement in the art of weaving, &c., and generally in trade and commerce. The latter, who are a branch of the Caucasian race, came into India about the 2nd century A.D. through the north-western frontier and formed themselves into a most influential community of traders and money-lenders. The Saraogies are Jains while the Sarākas are practically Hindus though originally they perhaps accepted other creeds too.

2. *On the origin of the Nikmard fair in Dinājpur.*—By MAULAVI ABDUL WALI.

(Abstract.)

This fair or *melā* commences on the 1st Baiçākh and lasts for a week. It is attended by about a hundred thousand people of all classes and religions. Some come for pleasure and others for trade. It is held in honour of a Muhammadan fakir from Bokhara whose *soubriquet* was Nikmard, "the holy man." According to the legend there was a Hindu rājā named Pitrāj, who, being childless, begged the saint to pray for him and promised him a handsome reward, if he should be blessed with a son. A son was born, but the rājā forgot his promise, and Nikmard with his disciples engaged in hostilities. The rājā defeated and killed him. He was canonized as "Nikmard the Martyr." The care of his shrine and the profits from the fair are now in the hands of the fakirs of Baliyā-Dighi.

3. *On the history of the Hutwa Raj.*—By GIRINDRA NATH DUTT, B.A.

(Abstract.)

The Rajas of Hutwa are of the same caste as the Rajas of Benares, Bettiah, and Tikari. They are popularly called Babhuns or Bhumihar Babhans to which caste the majority of the landed aristocracy of Behar belong. The Hutwa Raj family dates its origin from a prehistoric age. The present minor Maharaj-Kumar traces his descent from a long line of ancestors whom he counts up to 102 degrees above him. The founder of the dynasty was Raja Bir Sen. Allowing even an average of 25 years for each life, Raja Bir Sen would be about 25 centuries older than the present progeny of his and this would carry us back some six centuries before the Christian era, i.e., nearly about the historical date of Buddha's birth. The patronymic of the earlier Rajas was "Sen" which in the 16th descent was changed to "Sinha" and in the 83rd to "Mull" and in the 87th to "Shahi" which last patronymic still continues in the

family. The 83rd Raja, Jai Mal, seems to have flourished during the period when Baber defeated Mahommed Lodi* and appointed Darya Khan governor of Behar (1529) and the 86th Raja who obtained the title of Maharaja was Kallyan Mull who flourished in the reign of Akbar in 1600 A.D. and made Kallyanpur his seat. The 87th in descent, Khemkaran, obtained both the title of Maharaja Bahadur and Shahi in the reign of Jahangir 1625 A.D. The 95th who flourished in about 1719 was Maharaja Jubraj Shahi who wrested Pergannah Seepah, which still forms a portion of the Raj, from Raja Kabul Mahmud of Barheria and the 98th Maharaja Sirdar Shahi who flourished till 1747 invaded the principality of Majhauri, in Gorruckpur, and demolished their fortress. One of the conditions on which Sirdar Shahi made peace with the Majhauri Raja was that the latter was not to go about with *Nishan* and *Dunkas*, ensigns of Rajaship, until he had re-taken these by force from the Hosseypore (Hutwa) Rajas. These *Nishan* and *Dunkas* of Majhauri are said to be still in possession of the Tumcohi Rajas, the elder branch of the Hutwa Raj family, residing in Gorruckpore District. The 99th of the line was Maharaja Fateh Shahi Bahadur who was a rebel against the British Government in 1767. At the end of the year 1767 when the Revenue Collector of Sircar Saran demanded rent on behalf of the Company Fateh Shahi not only refused to pay but gave fight to the Company's troops sent against him in consequence and it was with much difficulty that these troops succeeded in expelling him from Hosseypore and his Raj was farmed out by the Government. Fateh Shahi retired into the jungles bordering on the then Independent Dominion of the Vizeer of Oudh and the Province of Behar and commenced depredations making raids into the District, to plunder villages and stop the collections of revenue and killed the Government farmer Govind Ram. The Raj was then farmed out by Government to his cousin Babu Basant Shahi and one Mir Jhumla, both of whom he killed in a night attack and sent the head of the former to his wife at Hosseypore who with her husband's head on her lap ascended the funeral pyre entrusting his minor son, Mohesh Dutt Shahi to the charge of a Rajput feudal lord Dhujjoo Singh. By his secure position in the jungle Fateh Shahi baffled all attempts of the British troops to seize his person or to check his depredations. The Government of Warren Hastings declared Fateh Shahi to have forfeited his zemindary and wrote to the Nawab of Oudh to settle the part of the zemindary lying in his dominion with the Government farmer with whom the rest of his zemindary was settled; but nothing was done as the British Government was soon after deeply engrossed with

* Copper coins of the Lodis are often found in these parts. The author found some as also the former D.S.P., Mr. Knyvett, near Katya outpost in 1898.

the rebellion of Cheyt Singh of Benares when Fateh Shahi with an enormous army again invaded the country, but was driven away after a hard struggle by the combined forces of Dhujoo Singh and the English under Captain Lucas. Fateh Shahi at last became a *fakir* in 1808, after leading the life of a Robin Hood continuously for 18 years and a retired life for 24 years. The armour which he used to wear is said to exist still in the Tumcohi Raj.

In 1785 when Government granted the zemindary of Hosseypore to Babu Mohesh Dutt Shahi, son of Babu Basant Shahi, he died a little before the birth of his posthumous son (afterwards Maharaja Bahadur), Chatterdhari Shahi. On the 21st January, 1791, the Government of Lord Cornwallis conferred on Chatterdhari Shahi, a minor of five years old, the confiscated estate of Hosseypore which passed under the protection of the Court of Wards, then newly formed. The Government of Lord Auckland on the 27th February, 1837, conferred on Chatterdhari Shahi the title of "Maharajah Bahadur." Chatterdhari Shahi rendered valuable services to British Government during the Mutiny of 1857-58 by placing the whole resources of the Raj at the disposal of Government and, though a very old man, himself fighting against the mutineers and restoring peace and order in the District. As he died soon after the mutiny the British Government granted to his successor, the 100th in descent, Maharaja Rajendra Protap Shahi Bahadur, a perpetual rent-free *Jaagir* in Shahabad, from the confiscated estates of the rebel Kuar Singh, yielding an annual rental of Rs. 20,000. Rajendra Protap Shahi was installed Maharaja Bahadur in 1858 and died in 1871. The great Hosseypore Raj case by which the Privy Council decreed the estate to be an impartible Raj descendible to the eldest son to the exclusion of all younger brothers took place in his time. He was succeeded by his son the late Maharaja Sir Krishna Protap Shahi Bahadur, K.C.I.E., the 101 in descent, under whom the prosperity of the Hutwa Raj reached its zenith. He died in October, 1896, leaving a son of four years old and a daughter, and the Court of Wards has taken up the administration of the Raj during the minority of the minor Maharaja Guru Mahadevasram Prosad Shahi.

PROCEEDINGS
OF THE
ASIATIC SOCIETY OF BENGAL.
FOR APRIL, 1903.

The Monthly General Meeting of the Society was held on Wednesday, the 1st April, 1903, at 9 P.M.

THE HON. MR. C. W. BOLTON, C.S.I., I.C.S., President, in the chair.

The following members were present:—

Mr. S. Abdul Alim, Mr. C. G. H. Allen, Mr. I. H. Burkill, Mr. T. H. Holland, Mr. D. Hooper, Mr. H. E. Kempthorne, Mr. T. D. La Touche, Mr. C. Little, Mr. J. Macfarlane, Kumar Ramessur Maliah, Mr. H. H. Mann, Major F. P. Maynard, I.M.S., Major D. Prain, I.M.S., Dr. E. D. Ross, Pandit Yogeesa Chandra Sastree, Dr. C. Schulten, Mr. E. P. Stebbing, Pandit Satis Chandra Vidyabhūṣaṇa, Mr. H. Wheeler, Mr. C. R. Wilson, Mr. H. C. Woodman.

The minutes of the last meeting were read and confirmed.

Fifteen presentations were announced.

Mr. M. Churchill Shann and Maulavi Syed Abul Aas were balloted for and elected Ordinary Members.

The President announced that the Council had elected Mr. F. E. Pargiter, B.A., I.C.S., a member of Council and Vice-President of the Society, in the place of Col. T. H. Hendley, C.I.E., resigned.

The General Secretary reported that Mr. E. P. Stebbing, Natural History Secretary, had been appointed to serve on the Finance Committee of the Society during the present year.

It was announced that Col. T. H. Hendley, I.M.S., had expressed a wish to withdraw from the Society.

The General Secretary reported the death of Mr. W. Connan, an Ordinary Member of the Society.

The General Secretary reported the presentation of 27 silver coins from the Government of United Provinces of Agra and Oudh.

The General Secretary announced the presentation of three large photographs of Sculptures by Mr. A. E. Caddy.

The General Secretary read the following circular issued by a Committee of the British Association for the purpose of collecting photographs of Anthropological interest, forwarded by Mr. T. H. Holland, Director, Geological Survey of India.

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

ANTHROPOLOGICAL PHOTOGRAPHS COMMITTEE.

President : C. H. READ, F.S.A., Pres., Anthr. Inst., British Museum, W.C.

Secretary : J. L. MYRES, F.S.A., F.R.G.S., Christ Church, Oxford.

This Committee was appointed by the British Association for the Advancement of Science in September, 1898, to provide for the "Collection, Preservation, and Systematic Registration of Photographs of Anthropological Interest."

A similar Committee on Geological Photographs was appointed in 1889, and has organised the valuable collection preserved in the Museum of Practical Geology. The Royal Geographical Society has gradually collected a large number of geographical photographs, many of which are also of anthropological interest. More recently the Hellenic Society has announced a large special collection for the use of students of the topography, civilisation and art of Greece. And the Anthropological Institute possesses a considerable collection of photographs, which have been lately mounted and classified; and has permitted the registration of these in the list of the new Anthropological Photographs' Committee.

The considerations which led to the appointment of this Committee are briefly as follows :—

(1) A very large number of Anthropological phenomena can only be studied in the field, or by means of accurate reproductions; but the latter are in many cases difficult to procure, except where typical ex-

amples have been regularly published ; and even then it is frequently of advantage to be able to acquire separate copies of single plates or illustrations, for purposes of comparison, without breaking up a collection or a volume.

(2) On the other hand, most travellers, collectors, and museum officials find it necessary to make many photographic negatives in the course of their own work, for which they themselves have no further use, but which they would gladly make accessible to other students, if any scheme existed by which this could be done without trouble to themselves. Such negatives also accumulate, and take up valuable space ; and are very liable to damage through neglect.

(3) Further, though many professional photographers in remote parts of the world have made admirable use of their opportunities of recording native types, customs, and handiwork, there has hitherto existed no single record of what has been done in this direction ; with the result that valuable collections have remained practically inaccessible to those in whose interest they have been made. In the case of the Hellenic Society, already cited, the inclusion, in the reference collection, of selected prints from the negatives of professional photographers abroad has been found to be of great advantage to teachers and students ; who consult it with the view of choosing the best representations to add to their own series.

What appears therefore to be required is, in the first place, a Register of the photographic negatives which can be made generally available, illustrated by a permanent print from each, preserved at an accessible centre ; together with an arrangement by which properly qualified students may be enabled to have duplicate prints made from them for their own use, at a reasonable price. In any such scheme it would be understood that the copyright, for purposes of publication, would remain with the owner of the negative, and that all duplicate prints distributed under this arrangement would be subject to that qualification.

In establishing such a Register or Collection of Anthropological Photographs, the Committee invites the co-operation of all owners of suitable photographic negatives, who are requested to submit for registration one unmounted print from each negative (which will be mounted by the Committee and preserved either at the office of the British Association, or in some central and accessible place) ; together with a full description of the photograph. The latter should state, as on the form appended :—

- (1) The subject of the photograph, and the place where the original is (or was) to be found.
- (2) The name and address of the owner of the negative.

- (3) The whereabouts of the negative itself ; i.e., whether it is retained by the owner, or deposited with a professional photographer or with the Committee.
- (4) The terms on which prints, enlargements, and lantern slides will be supplied when ordered through the Committee.

The Committee has made arrangements for the storage, and insurance, of any negatives which may be deposited on loan ; and for the production of prints and lantern slides from them to order : and a number of negatives have already been so deposited.

Additional copies of the form appended may be obtained from the Secretary to the Committee, MR. J. L. MYRES, Christ Church, Oxford, or from the office of the BRITISH ASSOCIATION, Burlington House, London, W.

The General Secretary read the following appeal from the Committee of the Memorial Fund to the late Dr. R. Rost.

MEMORIAL

TO THE LATE

DR. R. ROST, C.I.E., LL.D., M.A., Ph.D.,

LIBRARIAN TO THE INDIA OFFICE.

Dear Sir,

The undermentioned Committee has been formed for the purpose of collecting subscriptions to erect a Memorial Tablet or a Bronze Bust to the Memory of the late Dr. R. Rost, the eminent Oriental Scholar, who for so many years held with distinction the Librarianship of the India Office, and at all times rendered such valuable help to Students and to Oriental researches.

It is proposed to erect the Memorial in the India Office Library, and permission to do so has been obtained from the Secretary of State for India.

The Honorary Secretary to the Fund will be glad to hear at an early date if you wish to participate in this Memorial.

A Subscription Form is annexed.

Yours faithfully,

The Committee :

THE RIGHT HON. LORD AVEBURY. PROFESSOR T. W. RHYS DAVIDS.

SIR GEORGE BIRDWOOD, K.C.I.E. SIR JOHN JARDINE, K.C.I.E.

DR. JAMES BURGESS, C.I.E. C. P. LUCAS, Esq., C.B.

REV. J. ESTLIN CARPENTER, M.A. DR. M. A. STEIN.

C. G. LUZAC, Esq., *Honorary Secretary and Treasurer.*

The Philological Secretary read abstracts from a report by Sir Charles Lyall, the representative of the Government of India at the last Congress of Orientalists, which was held at Hamburg in September, 1902. A copy of the report was forwarded to the Society by Government:—

6TH DECEMBER, 1902.

SIR,

I have the honour to state that, in accordance with the request conveyed in your letter of the 3rd June, 1902 (R. and L. 7231 1902), I attended the XIIIth Congress of Orientalists, held at Hamburg from the 4th to the 10th September inclusive.

Although I was the only official representative of the Indian Government present, the Congress was attended by several gentlemen either now or lately in Indian service. On the whole, however, the number of representatives of India present was less than at previous Congresses.

The business of the Congress commenced with an informal meeting on the evening of the 4th September, followed by a formal opening on the morning of the 5th, after which the sectional sittings proceeded uninterruptedly (with the interval of Sunday the 7th) until the 9th inclusive. The 10th was devoted to the final general meeting called to consider the resolutions passed in the Sections. The time available was thus rather short—only half that allotted to the XIIth Congress at Rome in October 1899—and it was not possible, as on the last occasion, to attend continuously more than one Section. I was able, however, to be present at most of the sittings of the Indian Section (II. A), and at some of those of the Islamic Section (VI).

In the Indian Section on the afternoon of the 5th September I read Dr. G. A. Grierson's Report on the present stage of his work on the Linguistic Survey of India (copy attached), and presented to the Congress the two volumes (No. III. Tibeto-Burman: Bodo, Naga and Kachin languages, and No. VI. Indo-Aryan: Eastern Hindi) which had been completed since the XIIth Congress was held at Rome in 1899. A vote of thanks to the Indian Government for the organization of this splendid work was unanimously passed by the Section, and their best wishes were ordered to be conveyed to Dr. Grierson for the successful completion of his great undertaking.

On the afternoon of the 6th September, before the combined Indian and Central Asian Sections, Dr. M. A. Stein delivered a lecture on his journey of archæological exploration in Eastern Turkestan, and exhibited a number of beautiful lantern views of the scenes visited and objects found during his expedition. He also showed a select collection of the antiquities

and specimens of writing brought back by him. I think I may say that this lecture was one of the most interesting and most appreciated features of the Congress. A resolution expressing the thanks of the Congress to the Government of India for the encouragement to Oriental research given by their support of Dr. Stein's expedition, and appreciation of the highly important results achieved, proposed by Professor Henri Cordier, of Paris, and seconded by Professor Macdonell, of Oxford, was passed, which, having been confirmed by the general meeting at the end of the Congress, will be noticed further on.

A meeting was held on the 8th September of the International Committee of the India Exploration Fund, at which I presided. Little in the way of collecting subscriptions for this object in the countries representatives of which attended had been possible during the years which have elapsed since the Rome Congress of 1899; but the proceedings taken were described, and further measures likely to promote the interest of the Fund discussed. It was resolved to invite the general meeting to re-appoint the committee.

Professors Kuhn and Scherman, of Munich, laid before the Indian Section a report on the progress made with their Indian Bibliography, to which a subvention has been promised by the Secretary of State for India in Council.

I annex to this report extracts from the 10th Bulletin of the Congress setting forth the resolutions formally passed at the general meeting of the 10th September, so far as they touch on subjects of interest to the Indian Government.

Resolution No. 14 deals with the newly established "International Association for the Exploration of Central and Eastern Asia," with headquarters at St. Petersburg.

Resolution No. 15 deals with the publication of the Proceedings of the Congress. It will be seen that it has been decided no longer to publish communications *in extenso*, and it may be expected that the abstract of Proceedings which, under the new arrangement, will form the record of the Congress, will be received at an early date.

I have, etc.,

C. J. LYALL.

The Under Secretary of State
for India.

Resolutions of the XIIIth International Congress of Orientalists, passed at the General Meeting of the 10th September, 1902.

No. 3. The combined Indian, Central Asian, and Far Eastern Sections of the XIIIth International Congress of Orientalists, held at

Hamburg, beg to express their thanks to His Excellency the Viceroy and the Government of India for the great encouragement they have extended to Oriental learning and research, by granting to Dr. M. A. Stein the necessary leisure and means for the prosecution of his recent explorations in Eastern Turkestan. The thanks of the XIIIth International Congress of Orientalists are equally to be conveyed to Mr. G. Macartney, C.I.E., the political representative of the Government of India at Kashgar, and to the Mandarins Pan-Darin and Khan Daloi, of the Provincial Government of Chinese Turkestan, for the very effective help they had given to Dr. Stein in the course of his archæological and geographical explorations about Khotan, as well as to Mr. Petrovsky, the Imperial Consul-General of Russia at Kashgar, for the valuable assistance rendered by him towards the safe transport of Dr. Stein's collection of antiquities, from Turkestan to Europe. They desire at the same time to express their appreciation of the highly important results which have rewarded the labours of the scholar selected by the Government of India, and which represent an ample return for the outlay incurred, owing to the practical nature of the operations conducted by him. They would also venture to express the hope that facilities will be given to him for completing the publication and elaboration of the results obtained, and that the Government will be pleased to sanction any necessary extension for this purpose of Dr. Stein's present deputation. Finally, they venture to express the hope, that when circumstances permit, the interest of archæological research will be allowed to benefit by Dr. Stein's special experience and previous knowledge, which are likely to facilitate considerably the further explorations which it is desirable should be entrusted to him in the interests of India.

No. 5. (Translation). The XIIIth International Congress of Orientalists is requested to nominate afresh the committee appointed in Rome to promote the establishment of the "India Exploration Fund," and to instruct it to report to the next Congress the results of the action taken by it.

Agreed to on the 10th September, 1902.

No. 6. The Indian Section of the XIIIth Congress of Orientalists at Hamburg has received, with the greatest satisfaction, the report on the progress of the proposed "Manual of Indo-Aryan Bibliography," edited by Professor E. Kuhn and Professor L. Scherman, laid before the Section by Professor Kuhn.

The Section wishes to convey their best thanks to the Government of India for the subvention of this undertaking, so important for Indian studies, and recommends it to the support of learned Societies.

No. 8. Read a report on the resolutions of the committee appointed

to consider the necessity for a critical edition of the text of the Mahābhārata. Resolved :

That a competent scholar should be sent to India to collect the necessary MSS., and that Dr. Lüders should be selected for this work. The cost of this would be about 500, and the time required one year. Professor Bloomfield was authorised to represent this committee in America for the purpose of obtaining a contribution towards this amount.

No. 9. At the XIIIth International Congress of Orientalists held at Hamburg in September, 1902, Count F. L. Pullé, Professor of Sanskrit in the University of Bologna, having exhibited and explained in the Indian Section the highly interesting historical series of cartographic representations of India collected by him with infinite care and research, the Section expresses an earnest hope that means may be found to make this important set of maps generally accessible by publication to those interested in geographical and cartographic research.

No. 12. (Translation). In consideration of the circumstance that the same manuscript is often copied by several scholars, and published by them without knowledge of the work done upon it by others, the Chief Librarians of the University Libraries, College Libraries, and the British Museum are requested to have a record kept of each person who makes a copy of a MS., and to give information to any later copyist, on his application, as to whether, and by whom, a MS. has previously been copied.

No. 14. (Translation). On the 8th September, 1902, those members of the Committee of the "International Association for the Exploration of Central and Eastern Asia" appointed at the XIIth International Congress of Orientalists in Rome who were present at the XIIIth Congress in Hamburg assembled under the presidency of Dr. W. von Radloff (St. Petersburg). A draft of the statutes of the proposed association, prepared by scholars at St. Petersburg, was submitted for discussion, and settled paragraph by paragraph in French by the meeting.

The President having informed the meeting that he was authorised to state, on the part of the Russian Government, that that Government intended to constitute a Russian Committee of the Association, under the Jurisdiction of the Imperial Ministry for Foreign Affairs, the meeting resolved :—

- (1) To confirm the statutes of "the Association for the Historical, Archæological, Linguistic, and Ethnographic Exploration of Central and Eastern Asia";
- (2) To entrust the members chosen at Rome, MM. W. von Radloff

and Serge von Oldenburg, with the formation of a Central Committee of the said Association; and

(3) To name the following members as representatives of the several countries:—

France.—MM. H. Cordier, E. Senart, and M. A. Foucher.

Great Britain.—Lord Reay, Professor Rhys-Davids, and Dr. A. Stein (India).

Germany.—Drs. R. Pischel, Grünwedel, Ernst Kuhn, and E. Leumann.

Holland.—Drs. Kern, De Groot, and De Goeje.

Denmark.—Dr. V. Thomsen.

Sweden.—Dr. D. Montelius.

Norway.—Dr. J. Lieblein.

Finland.—Dr. O. Donner.

Austria.—Ritter J. von Karabacek and Professor L. von Schroeder.

Hungary.—Dr. A. Vambéry and Dr. Herrmann.

Switzerland.—Professor Ed. Naville.

Italy.—Professor L. Nocentini.

America.—Professor F. Hirth.

No. 15. Especially as experience has shown, that the publication *in extenso* of all the communications presented at the Congress can follow only so late afterwards that the contents of many contributions are overtaken by the advance in science before they can appear;

And whereas it would not be difficult for every contribution to be published in some one of special journals or periodicals where it would come more directly to the knowledge of those working in the particular subject.

Therefore the General Session of the XIIIth International Congress of Orientalists resolves that—

The issuing of the communications *in extenso* be given up. That the Executive Committee in Hamburg be entrusted with the duty of publishing within at least six months, the essential points of those contributions and discussions, of which a *résumé* is handed to the General Secretary within one month after the close of the Congress. The length of the single *résumés*, so far as possible, shall not exceed two printed pages, of the form and size of the previous reports. The Congress requests that the Board of Directors of the German Oriental Society lend their aid to the Executive Committee in Hamburg in the matter of publication.

Report on the Progress of the Linguistic Survey of India presented to the XIIIth International Congress of Orientalists.

The Linguistic Survey of India has made considerable progress since I had the honour of submitting a report to the XIIth Oriental Congress. I laid before that Congress two volumes, one containing the survey of the Bengali language, and the other a collection of various languages, spoken on the North-Western Frontier of British India. I have now the honour to lay before the present Congress two more volumes, one dealing with the Bodo, Nāga, and Kachin groups of the Tibeto-Burman family, and the other dealing with Eastern Hindī.

The Survey has now arrived at a stage at which I can forecaste its extent, and the probable number of volumes which it will contain. Subject to subsequent revision, the following is the proposed list of volumes:—

Vol. I. Introductory.

Vol. II. Mōn-Khmēr and Tai families.

Vol. III., Part I. Tibeto-Burman languages of Tibet and North Assam.

Part II. Bodo, Nāga, and Kachin groups of the Tibeto-Burman languages.

Part III. Kuki-Chin and Burma groups of the Tibeto-Burman languages.

Vol. IV. Dravido-Munda languages.

Vol. V. Indo-Aryan languages, Eastern group.

Part I. Bengali and Assamese.

Part II. Bihārī and Oriyā.

Vol. VI. Indo-Aryan languages, Mediate group (Eastern Hindī.)

Vol. VII. Indo-Aryan languages, Southern group (Marāṭhi.)

Vol. VIII. Indo-Aryan languages, North-Western group (Sindhi, Lahndā, Kashmirī, and the "Non-Sanskritic" languages.)

Vol. IX. Indo-Aryan languages, Central group.

Part I. Western Hindī and Panjābi.

Part II. Rājasthāni and Gujarāti.

Part III. Himalayan languages.

Vol. X. Iranian family.

Vol. XI. "Gipsy" languages and supplement.

As regards the progress made in these volumes:—

Vol. I. must naturally wait till all the rest has been finished.

Vol. II. is complete in manuscript, and is now in the press.

Vol. III., Part I., is in the competent hands of Professor Conrady. If he is at the Congress he will be able to report the progress which he has made.

Part II., has been printed, and is ready for issue, save for a few corrections, and for the maps which are still with the printer. This is one of the volumes which (without the maps), I have the honour to lay to-day before the Congress.

Part III., is complete in manuscript, and is now in the press.

Vol. IV., has not yet been touched.

Vol. V. Both parts are complete, and in the press. They are nearly printed off.

Vol. VI. This is complete. It is one of the volumes which (without its map) I have the honour to lay to-day before the Congress. The map has been passed for press, but could not be issued in time for the Congress.

Vol. VII. This is complete in manuscript.

Vol. VIII. This has not yet been touched.

Vol. IX. In Part I. Western Hindi is rapidly approaching completion in manuscript. Panjābi has not yet been touched. In Part II. "Gujarāti" includes the Bhil languages and Khāndēsi. These two have been finished in manuscript. The rest of Gujarāti and Rājasthāni have not yet been touched. Part III. has not yet been touched.

Vol. X. This is nearly all in type.

Vol. XI. Not yet touched. By "Gipsy" languages, I mean the various secret languages, spoken by the numerous wandering tribes who are found in all parts of India.

Such satisfactory progress could not have been made had it not been for the help which has been given to me by my Assistant, Dr. Sten Konow, and I am glad to have this opportunity of gratefully acknowledging it. Much of the success of the Survey will be due to his learning and indefatigable industry. While almost every page of the Survey which has been prepared up to the present date has passed under the eyes of us both, he is specially responsible for the sections, dealing with the Kachin and Kuki-Chin Groups, for Marāṭhi and for the Bhil languages and Khāndēsi. I hope that, after the Congress, he will be able to prepare the sections dealing with the Muṇḍa and the Dravidian languages.

Of the volumes which have been completed, those dealing with the

Indo-Chinese languages have presented far the greatest difficulties. Specimens of numerous languages which were hitherto almost unknown have been prepared, and have been illustrated by short grammars and vocabularies. That the result has been altogether satisfactory cannot be maintained. Students of languages will not require to be told of the difficulties which are experienced in reducing an unknown language to writing for the first time. Moreover, few of the specimens were recorded by scholars. Many of them were obtained by Government officials, who were ignorant of the languages dealt with, and had to trust to uneducated interpreters. Mistakes were, therefore, almost inevitable. No other method was, however, possible for obtaining specimens of the tongues of some of the wild tribes who inhabit the eastern frontier of India, and I am fully sensible of the care and enthusiasm which have been displayed by many of my brother officials in their collection. On the whole, considering the means at their disposal, the various specimens have been found to be surprisingly correct. Although absolute accuracy has not been attained, a great step in advance has been made in our knowledge of the languages of a number of little known Indo-Chinese tribes. For instance, Dr. Konow has been able to make a satisfactory grouping of that mass of kindred languages which goes under the name of Kuki-Chin, and this volume will be one of the most interesting of the Survey. Thanks to friends, it has been found possible to give some account of the dialects of the interesting Khassi language, one of which employs infixes as well as prefixes in its word-formation, and thus throws considerable light on the structure of the speeches of the Môn-Khmër family. Through the kind help of Sir Charles Lyall, a full account has been given of Mikir, one of the most important Tibeto-Burman languages of Assam, about which very little has hitherto been known. Finally, an attempt has been made to give a description of Ahom, the ancient Tai language of Assam, now for many years extinct.

Dr. Konow has been able to finally place Marāṭhī in its true relation in regard to the other Aryan languages of India, and has incidentally thrown much light on the relationship of the various Prakrit dialects to each other. A summary of the results of his enquiries will shortly appear in the "Indian Antiquary." He has also succeeded in classing the Bhil languages. These are certainly closely connected with Gujarāṭī. Towards the south they borrow a little from Marāṭhī, but the basis of their language is still Gujarāṭī. Closely connected with the Bhil languages is Khāndēśī, which can no longer be considered to be a dialect of Marāṭhī as hitherto supposed. None of the Bhil languages shows any traces of connection with the Muṇḍa tongues, except a very few words which have survived in their vocabulary.

I have every confidence that I shall, if all goes well, be able to report the completion of the Survey at the next Oriental Congress.

GEORGE A. GRIERSON.

CAMBERLEY,
30th August, 1902.

The following papers were read:—

1. *An ancient cave and some ancient stupas in the District of Gaya.*—
By PARMESHWAR DOYAL. *Communicated by the Philological Secretary.*

2. *On two remarkable rain-bursts in Bengal, and some of the more prominent features of the monsoon season in Northern India in 1902.*—By
C. LITTLE, M.A.

(Abstract.)

The paper on two remarkable rain-bursts in Bengal, etc., is divided into three parts. The first contains a few general, and in some cases, explanatory remarks of an introductory character. In the second, all the information available collected chiefly from published reports regarding two of the most extraordinary disturbances in the writer's experience, is given, arranged in tabular form and accompanied by brief remarks. These disturbances, in his opinion, entered India from Central Asia and were, he believes, the direct cause of most important changes in monsoon conditions in Northern and Western India. One of the effects of the disturbances was the heavy bursts of rainfall in Bengal Proper and Assam. The first of these bursts began suddenly and ended as suddenly on the 30th June. The other occurred with equal suddenness on the 11th August. The immediate effect of the first general disturbance was the commencement of what is called monsoon weather over the whole of Northern India as far west as the Simla Hills. The effect of the second was, he believes, that extraordinary change which occurred in Western India when on the twelfth stroke of the hour a large part of the Empire was saved from a renewal of devastating drought.

In the third part the writer has attempted to show how these two disturbances divided the past monsoon season into periods, during each of which the line of advance of cyclonic storms from the Bay had a marked peculiarity. It is a matter of common knowledge that in each of these periods there was an exceptional distribution of rainfall, shown by excess in one part and great defect in another. What is suggested is that this abnormal distribution of rainfall, must be due to the same causes as the eccentric behaviour of the cyclonic storms, generally called recurving; and that it is a matter of first class importance that the problem of the recurving should be investigated and solved. Being a definite

problem it must have well defined, and ascertainable data, and quotations are given supporting the opinion that these data are not indicated by ground level observations. Further as all the variations occur within the Indian boundaries the necessary information is probably available without reference to foreign sources.

3. *Economic Entomology: Its study, aims, and objects.*—By E. P. STEBBING, I.F.S., F.L.S.

The necessity for the serious study of Economic Entomology in a great agricultural country like India has forced itself into prominence during the last few years, and now that active steps are being taken in the matter it may prove of interest to consider what such a study really involves and the nature of the results to be expected from it.

Economic Entomology may be defined as the study of the life-histories of Injurious Insects with a view to instituting remedial measures against them. As we shall see later, this latter branch of the subject involves the study of, firstly, the life-histories of insects predaceous upon, or parasitic upon, or in, the pests; and, secondly, the experimenting with various insecticides with a view to testing their practical efficiency before recommending them for general use. The aid of the Economic Botanist will be required to identify Insect fungi which may live as parasites upon our insect foes; for the study of such and the preparation and stocking of cultures may give us a terribly efficient weapon against these minute enemies. The mention of the Economic Botanist leads me to a small digression. It has not, I think, been generally understood in India, and the country by no means stands alone in this respect, that there is a vast gulf between the Science of Botany and that of Entomology and consequently between the Botanist and the Entomologist. I allude here only to the economic aspect of the work in both cases. No man can hope to be an expert in both save in some small country and area whose flora and insect fauna are already known. In India this ideal state of affairs is very far ahead. The fields before both experts are vast and almost untouched and require years of patient working and observation to achieve the results that will be of such benefit to the country at large. The man who endeavours to specialise in both may do well enough as a beginning, just as one man can run the secretariat of a budding State. As the latter flourishes the one-man rule has to give way, departments are formed, and the work parcelled up. The revenue man, receiving a paper on financial matters, promptly labels it 'Finance' and sends it off to its proper quarter. The Economic Botanist and the Economic Entomologist are in much the same relation to one another. They can help each other, but each requires all his time for his own particular subject, and, if a true

specialist, makes no pretence at working in a line foreign to him. The difference may be said to be almost equally wide between the Economic Entomologist and the Museum Entomologist. The latter especially interests himself in the classifications of insects, gives names to new genera and species; considers, in the light of fresh discoveries, the re-arrangement of the grouping of families or the formation of new ones, etc., and keeps watch over the valuable type collections of the nation, all work requiring careful training, deep reading, much microscopic labour, and an enthusiasm for the subject. The Economic Entomologist, on the other hand, studies insects from a very different point of view. His aim is to find out where the insect lives, what it feeds upon, the periods spent in the various stages of its life-history, *i.e.*, how long it spends in the egg-stage, grub-stage, etc. Whether at one time of the year it lives upon a certain kind of crop, changing its food plant later on or seeking neighbouring patches of scrub jungle to lie up in when the fields of the plant it is partial to are lying fallow. This knowledge enables him to draw out his plans for attacking noxious pests. To him the fact that the insects he has discovered and is studying are new to science is, though interesting, quite of secondary importance. Their habits and life-histories and the best means of combating them are his chief concern. To his companion in the Museum he leaves the other portion of the work.

With this brief digression we will now devote ourselves to a consideration of how the Economic branch of the science, or the work in the field, can best be studied, our object being the protection of vegetation of use to man by discovering means to check undue increases of noxious insect pests.

With reference to the position of the *Insecta* in the Animal Kingdom. Perhaps if I say here that insects lie roughly halfway up the scale, *i.e.*, halfway between the simplest animal, the one-celled *Amoeba* and that highly and complexly constituted being known as Man, having as near relatives the crabs and lobsters, spiders and scorpions on the one hand, and the centipedes, and millipedes and, still higher up, the starfish on the other, their position will be sufficiently defined for our present purpose.

In dealing with the subject it will be necessary to first consider briefly the stages in the development of an insect. We all know what such an animal is like and he who lays no claim to the slightest acquaintance either with their classification or varied modes of life is able in the generality of cases to recognise an insect. The ordinary layman equally knows that an insect passes through various stages of development. The gaudy butterfly, gracefully floating on azure wings in the brilliant sunlight, does not come into being as such and its transcendent beauty can no more be perceived in its earlier stages than can the glorious loveliness

of budding girlhood be traced in the baldheaded, toothless, newly-born babe. Both are slowly developed. The insect commences life as an egg. From this egg hatches out a grub which in form is often totally unlike the future adult. It is in this grub stage that all increases in size usually take place. The grub changes to a pupa or chrysalis, a resting stage, during which the insect does not feed and usually remains quiescent. In this stage of rest the internal complex organs arrive at maturity and the wings are acquired. When this development is complete the insect emerges in its adult or perfect form and subsequent to this all further growth ceases. Any common butterfly goes through these changes. This state of affairs is, however, not always fully carried out, as in some Orders of insects the third or pupal stage is absent. In these cases the young ones on hatching out from the egg usually resemble the parents in form, but not in size; the wings are always absent and colouration and markings may undergo modifications. Such insects acquire their wings and full size by a series of moults, the outer skin being shed at intervals, the last moult producing the perfect insect with fully-developed wings. The common North-West or Migratory Locust (*Acridium peregrinum*) is an instance of this mode of growth. There is one more point in connection with the structure of insects to which attention must be drawn, a most important one since, as we shall see later on, on it depends the nature of the remedies we bring into force to combat serious attacks. This important point is the form of the mouth parts that may be present. In this respect insects may be roughly divided up into three groups according as to whether they have a mouth formed for biting, for sucking, or a combination of the two. In the biting mouth, biting jaws or mandibles are present, by means of which the plant tissues are bitten through before being devoured. Instances of such a mouth may be seen in the locust or any common beetle. In the sucking mouth the biting jaws are absent or are mere rudiments and the mouth consists of a long tube or proboscis often furnished with one or more piercing organs to enable the insect to pierce through tissues of plants and then insert the tube and suck up the sap. Bugs, plant lice, and scale insects have such a mouth. In the biting and sucking mouth both mandibles and the sucking tube are present, as may be seen in the common bee. As I have said, these different forms of mouth bear a constant and definite relation to the method of life and feeding operations of the insect and therefore to the methods that can be introduced to combat its attacks. We are now in a position to consider the first step—the study of the life-histories of pests.

It may be taken as a cardinal point in remedial work that the more one knows about the habits and life-history of a given species of insect

the better are the chances of discovering a cheap and efficient remedy or controlling it.

Many insects, for example, can be dealt with only in the active feeding condition; with others the eggs are the easiest destroyed, whilst in others again the quiescent or over-wintering stage is the easiest disposed of. We must therefore be able not only to recognise it in its different stages, but must know just how long it remains in each and just how it comports itself in each. Each new insect which makes itself unpleasantly prominent must be studied throughout its life round before we can say that we know best how to fight it, and when commencing the work in a new country this investigation into the pest's life-history is the point from which we must start.

I have said that the Insect must be studied throughout all its stages of egg, grub, pupa and adult, *i.e.*, through its life cycle, and this in itself is no light task, as it requires high powers of observation and much patience in investigation work, which may have to extend over several years.

Unfortunately, however, when the life cycle has been watched through the work is often by no means complete for the particular insect under surveillance may pass through several such in the year, and this is more particularly the case in tropical countries. In our own Northern clime (England) some insects in favourable seasons may pass through two life cycles in the year—one in the spring or early summer, a second in the late summer or autumn. But this is nothing to what happens in tropical countries. In such the life cycles are greatly increased and three, four, or even as many as seven or more, generations of a pest may be run through in the one year and to add to the perplexities and worries the study of such entails the insects of the various generations or cycles may vary in appearance, sometimes in a marked degree. For example, many Indian butterflies have received different names from eminent scientists owing to their great variations in markings, colouration, and even shape in the various generations they pass through in the year; the subsequent study of their life-histories has shown them to be but the spring and summer forms of one and the same insect. Thus the Economic Entomologist is able to help and set right the work of his museum comrade. But this forms by no means the sum total of the vagaries of Insect life. We have seen that an Insect may have several life cycles in the year the individuals in which may vary in colour, shape, etc. But others go farther and spend one of their life cycles on one portion of a plant, *e.g.*, on the leaves and twigs above ground; whilst the other is totally unlike the first in appearance and may be spent on the roots.

The well-known *Phylloxera* of the vine is an insect of this kind and for years the root-feeding form was described as a different species. Again there are other insects which at one stage of their life-history are able to produce young in large numbers parthenogenetically, these maturing very rapidly and doing the same in their turn, the process continuing for several months on end from the spring to autumn. At this latter season a sexual generation is produced which lays the winter eggs, which in the succeeding spring gives rise to the parthenogenetic females. It thus becomes obvious that the efficient study of Economic Entomology requires a previous very considerable and intimate acquaintance with the habits of the different groups of Insects and also requires one to be prepared for the startling vagaries the effect of a semi-tropical or tropical climate has upon them in their various life cycles. It is this that makes it difficult, if it does not lead to absolute confusion, to make use of observations and remedial measures which have been worked out or found effectual in other countries. The theory that what holds good for, say, Europe or America, will be equally applicable in a country like India is a fallacy which cannot be too widely exposed. To act on the assumption that because an Insect has such and such a life-history in, we will say England or North Europe, appears at such and such times, etc., that therefore we know the life-history of that same insect (for some pests are cosmopolitan in their range) or of closely allied forms, in a country like India is not only to involve the science in a dangerous and hopeless medley of inaccurate postulations and assumptions, but also to risk wasting large sums of money in endeavouring to combat pests who are not at the time in the stage at which the remedial work has a chance of meeting with success, and whose life-history in this country is quite different to what it is supposed to be from European analogies. A well-known and experienced Entomologist, Mr. Walter F. H. Blandford, who worked at Economic Entomology for the India Office for several years and consequently obtained a wide knowledge of this phase of the subject, used to continually reiterate his warnings as to the danger of taking anything for granted in a country like India, and my own experience has proved over and over again the justice of his contention. The Economic Entomologist in India must go into the field or orchard, plantation or forest and study the pest carefully on the ground through the ins and outs of a series of life cycles before he can safely prescribe remedies on a large scale. Even in the outer Himalayas, where conditions are more similar to Europe and North America, the investigator must proceed warily and deduce nothing 'because it is so in Europe' without first carefully verifying his opinions by observation.

We have seen that the study of Economic Entomology first prescribes a knowledge of the life-histories of noxious pests and that this is the first work to be taken in hand. Having made ourselves acquainted with these, we are now in a position to consider what remedies may be introduced to combat them.

It may be said, the question has been pertinently asked very often, 'But why bother about remedies from whose introduction a very problematical good is to be derived, when India has gone on all these years without them?' I would retort that the world went on for a good many centuries without the telegraph and railway, that Englishmen managed to exist in some comfort in Calcutta for considerably over a century without the electric fan and light and yet no one doubts their usefulness and necessity at the present day. The agricultural requirements of the country have not stood still; they have advanced. The study of the science under consideration has become of such importance owing to the large increase in the cultivated tracts in the country and to the much larger development in this respect which the great irrigation schemes promise. It is an axiom in Economic Entomology that to increase the food-plant of an insect over large contiguous areas is to increase the numbers of the pest itself since finding so much of its favourite food close together enables it to increase with ease, the usual checks it would have to overcome in its natural surroundings being absent. It will be obvious to everyone that a large irrigation scheme will help the insect to perfection. We come then to the question of remedies. Remedial measures divide themselves into two groups:—

- (1) Those applicable through the agency of man.
- (2) Those which Nature herself puts into force to prevent, or bring down to normal proportions, undue increases of any particular members of her animal kingdom.

The first group, the question of remedial measures to be introduced by man's agency, will be considered in detail later on, but we may show briefly here *en passant* how the knowledge of the life-history leads to, or suggests one class of remedy to be employed. We have seen how the mouth parts in insects vary, some being furnished with a biting mouth, whilst others have a sucking one. Now the presence of one or the other of these forms of mouths will decide, in the case of the insecticide sprays, the nature of the spray to be used. The obviousness of this will be evident when it is mentioned that some spraying mixtures are merely contact ones, whereas others must be taken internally to have killing effects. The first are used against sucking insects which have usually soft bodies, their spiracles, or air-breathing openings at the side of the body, being large and exposed. It is useless using a poisonous spray

requiring to be taken internally, against such insects since they feed by suction, inserting their proboscis into the tissues of the plant. A liquid, which merely coats the external surfaces, will not be taken internally and will not therefore affect the insect. If, however, a liquid of a thick soapy nature, *e.g.*, such as kerosene emulsion, is sprayed upon the plant it will thickly coat the leaves and stems and cover and clog up the breathing openings of the sucking insects feeding upon it and suffocate and kill them.

The second class of spraying solutions alluded to—the poisonous ones—are for internal application. They are for use against insects with biting mouth parts. These are often hard bodied externally and would not be affected by the soapy liquids. In feeding upon the leaves, etc. which have been sprayed over with the poisonous mixture they take the poison internally and are got rid of.

We shall refer to other remedial measures applicable by man later on. The above two have been touched upon to show how the class of remedy employed may depend entirely upon the structure and manner of feeding of the insect. It will, however, be obvious that neither of the two above mentioned remedies would be of the slightest use against a pest which spends its life inside the stem of a plant or beneath the bark of a tree, or the dangerous portion of its existence buried in the ground feeding upon the roots. We shall consider methods of combating such attacks at greater length later on.

We now come to the question of natural remedies or nature's checks. These may consist of parasites, either insect or fungus. Such checks follow nature's laws and pertain to her department, but it may be shown that such can, when thoroughly understood by man, be assisted and spread by his agency.

It is probable that most insects are subject to these natural checks, *i.e.*, that most insects have at least one insect parasite preying upon them and some may be subject to several. These natural checks are of two kinds—the parasitic forms and the actively predaceous forms.

The parasitic forms live as true parasites inside the bodies of their hosts. Examples of such are the Ichneumon flies, Chalcid flies, and Tachnid flies—all exceedingly common and numerous in India. Important as they are however to man, but little is at present known about them in the country and our knowledge is not at present sufficient to make any successful use of them.

The predaceous group comprises those insects which actively prey upon species of their class, feeding externally upon them, living in the same haunts, and passing very similar lives. These are very commonly mistaken for noxious pests by the uninitiated; in fact, it may be said

that this is the rule in India. It is the old fable of killing the goose which lays the golden eggs; for the want of elementary knowledge in this respect undoubtedly leads to the extermination of many of man's friends. These predaceous insects are often sent to the Museum as injurious to crops, etc., when they have probably been doing, as far as in them lay, the greatest good by keeping within bounds the much less obvious crop pest in the fields. Two instances of this nature may be quoted here:—

A certain beetle, by name *Oicindela punctata*, one of a family known as the Tiger beetles owing to their predaceous proclivities, is common in India. Both in its grub and mature beetle stage it actively preys upon other insects and at times is to be found swarming in fields under crops. As the insect is brightly coloured and very active, flying and running well, it is very conspicuous, and if the crops are suffering from the attacks of insect pests the cultivator at once jumps to the conclusion that the easily seen and numerous tiger beetle is the cause. If he has heard that insects are at times a source of danger, he at once proceeds to kill off as many of what are really his friends as he can. The real cause of the damage is probably some small inconspicuous insect which escapes his notice, but upon which the tiger beetle is actively feeding.

The second instance I will quote is to be found amongst the ladybird beetles (*Oocinellidæ*). Most people know what a ladybird beetle is like, the little oval, reddish, brightly-coloured insects with spots on their back of our childhood and nursery days. The greater bulk of these seemingly harmless insects are eminently predaceous, both as grubs and beetles. Plant lice, scale insects, etc., form their bill of fare and they suck them as dry as one would suck an orange. One of these insects has earned for itself a world-wide reputation, having been imported by the Americans into the Florida orange groves at a time when the orchards were so badly attacked by the fluted scale insect that trees were dying in hundreds and the industry seemed threatened with extinction. The importation of the ladybird beetle and the business-like way it set about clearing the trees of the scale saved thousands of pounds worth of capital and many homes from ruin.

Observations are showing that these ladybird beetles are likely to play an important part in India in the future in the hands of the Economic Entomologist, for there is no doubt that we have many valuable species in this country which only require proper investigation to prove most useful and deadly weapons when wielded by the expert. Once their life-histories have been studied and the localities they live in have been ascertained, it will be a simple matter to arrange for obtaining consignments for distribution to areas where it has been proved that their intro-

duction will be of great value. It should be pointed out, however, and the point is an important one, that such weapons should only be made use of by those thoroughly conversant with them and that the importation of such insects into localities should not be attempted until it has been ascertained that there are no local beetles already performing this work. A large sum was expended by Southern India planters in importing a ladybird beetle from Australia to clear off the coffee scale. No result happened, as the business was not in the hands of an expert who would have conducted things properly, and the money was wasted. Attempts of this nature made by those who do not understand what is required to be done nor how to do it only bring such work into disrepute.

We now come to a further consideration of the remedies applicable by the agency of man and here we meet a subject about which little is at present known in India. This being so it would be a useless waste of time going into a long dissertation upon the various kinds of spraying mixtures (already alluded to shortly above) and special spraying machines, the various appliances for using gases to kill scale insects, and other up-to-date remedial measures chiefly introduced by Americans and largely in use in that country. Conditions are altogether different in India, the two chief difficulties against work of this nature being the great areas which have to be dealt with, and the ignorance, conservatism, and religious prejudices of the ryot.

But while we are not in a position at present to advise the application in India of these numerous and useful remedies, which are doing so large an amount of good in other countries, we may consider for a moment with profit the lines upon which we should advance.

Although a general use of sprays and spraying machines cannot be as yet advocated, it is not for a moment meant that in certain cases such will not be useful. Their practical utility and possibility must first, however, be experimented with and demonstrated by the specialist before they are introduced for general use to the ryot. For instance, to give one illustration. There is a beetle commonly known as the rice hispa (*Hispa senescens*) which commits, at times, great harm in the rice fields by feeding upon the leaves and reducing them to mere yellow bundles of the harder fibres of the leaf. Both the grub and beetle feed in this way upon the leaf. Now this attack is started by the beetle laying its eggs upon the leaves of the young rice seedlings whilst they are still in the small nurseries in which the young plants are reared before being put out into the fields. When the seedlings are transplanted out into the rice fields the beetle accompanies them either as a grub or pupa on the leaves and is thus spread widely all over the country. It goes through several generations subsequently upon the rice plants and at

times does great damage. This is, I think, a case for the effective use of a poisonous spraying mixture, as it could be easily applied whilst the seedlings are still in the nursery in small compact blocks and the attack could thus be checked in its initial stages. Once this treatment has been conclusively proved by careful experiment to be effective there can be no reason why the Bengal rice hispa should not be kept within bounds. Attention has been already drawn to the point which will bear reiteration that such experiments must be carried out by experts if they are to prove successful, otherwise they become objects of unmerited ridicule.

Another class of remedies which can only here be mentioned since nothing is known of their capabilities are the parasitic insect fungi. The locust fungus is a case in point. Much good has been attained by its use in some parts of the world, though in India it has been said to have been unsuccessful. I have experimented with it myself, using consignments from the Cape and America, and it is certainly deadly to small locusts and grasshoppers and I do not hold the opinion that it is useless for the purpose in view, *i.e.*, that of killing off locusts during big invasions.

There are, however, other forms of remedies entirely different from the above, measures which depend upon an accurate knowledge of the habits of the pests to be attacked. Amongst such may be mentioned the well-known trench system for getting rid of locusts. The successful use of this depends entirely upon our knowledge of the fact that young locusts soon after hatching and before they have acquired wings pack together and march in serried brigades down to the nearest crops. They can at this stage be driven into trenches dug for the purpose and exterminated.

A cricket (*Brachytrupes achatinus*) at times does great damage to the roots and stems of young tea, indiarubber, and various other plants in nurseries. It lives in holes in the loose soil of the nursery beds or adjacent areas and in the day time can with profit be dug up and killed off. Internal borers, such as the caterpillar of the sugarcane moth, can be effectively attacked when their action on the cane is understood. The removal and burning of all infected canes as soon as the insect is observed to be at work in them, and whilst they are still young, will do much towards stamping out this pest.

Finally, we come to a remedial measure of quite a different nature to those considered above, and that is the careful study of the various varieties of particular crops and the attacks to which they are subject, with a view to selecting for future use that variety which is the most resistant to such attacks. There can be little question that such in-

vestigations will result in most advantageous results. Of course it may be found that occasionally recommendations will conflict upon this point. For instance, a variety which the Entomologist has proved to be least attacked by insect pests many prove to be seriously infected by fungus ones, but it is not improbable that many of these latter follow, or are the result of insect attacks, the insect committing the first injury to the plant and thus providing a means of ingress for the fungus.

The variety of seed least subject to attack and the variety of plant should, then, be discovered and introduced to the ryot and we shall then have made a great advance in dealing with our numerous insect foes.

SUMMARY.

In the above paper we have shortly considered the Science of Economic Entomology: its study, aims, and objects. After a few brief words on the importance of the work in such a great agricultural country as India, we proceeded to define the term as the study of the life-histories of injurious insects with a view to instituting remedial measures against them, this latter question involving an acquaintance with the habits of insects, predaceous and parasitic, upon the noxious pests and with the capabilities of various insecticides and other remedial measures. We saw that the aid of the Economic Botanist would be required to identify parasitic insect fungi and to prepare cultures of such for use against crop pests. The difference between the sciences of Botany and Entomology was glanced at and the impossibility of a man being an Economic expert in both in a country the size of India pointed out and reasons for this statement given. Attention was also drawn to the difference in the work of the Museum and Economic or field Entomologist. How the former was concerned with the classificatory portion of the work and with the care of the valuable State type collections, whereas the latter confined himself to the study of the life-histories and habits of insects in the field with the object of working out remedies against them.

After mentioning the position of the *Insecta* in the Animal Kingdom and describing shortly the various stages in the life of an insect, we saw that the mouth parts of insects vary, some having a biting mouth, others a sucking one, whilst others again have a combination of the two; and that the presence of a particular form of mouth might decide the nature of the insecticide to be used against them.

It was then shown that the first step in the work was the study of the life-history, it being a cardinal point that the more one knows about such the greater will be the chance of devising some remedy against the pest. Many insects, we saw, can only be attacked in their active feeding

stage, others in the egg or in the quiescent over-wintering stage. It therefore becomes necessary to be able to recognise our pest in all its stages of life. The matter becomes complicated, since when this has been accomplished it may be found that there are several life-cycles in the year and that the stages in one or more of them may differ from the earlier or later ones. These variations reach their maximum in tropical countries, where the number of life-cycles passed through in the year may be as many as seven. Further complications arise owing to what is known as alternation of generations, an insect living in one form, say, on the stem or leaves of a plant at one period of its life and in quite a different form on the roots at a later stage and season. We also saw that parthenogenesis occurred when large numbers of females are born alive by a female and in turn produce young ones, this state of affairs occurring through the spring and summer months, a true sexual generation only appearing in the autumn, this latter generation differing in appearance from the parthenogenetic females. This state of things compelled the conclusion that we cannot rely upon the fact that life-histories and remedies worked out and applicable in Europe or America will be of use to us or equally justified in India. To do so will be to court disaster. The life-histories of even cosmopolitan insects will vary in India and will be different in different parts of the Continent. In introducing remedies the susceptibilities of the Indian ryots must be taken into account and care be exercised to introduce only such as will be possible to them and at the same time within their means.

We then considered the question of remedies and as to why their study and introduction was necessary. It was pointed out that the large increase of areas under cultivation and their greater increase which the future held promise of, owing to the great irrigation projects now under consideration, made the study of Economic Entomology an imperative matter, it being an axiom that an increase in the area under any one food plant meant an increase in the insect pests partial to it, since there was so much food of easy access to them.

In considering the subject of remedial measures we showed that they divided themselves into two heads: (1) Those applicable through the agency of man; and (2) natural checks brought into play by Nature herself. In the first group we touched briefly upon the question of using spraying mixtures and the reason why some such, as, *e.g.*, kerosine emulsion, were only applicable to insects with sucking mouths, since they were required to clog up the breathing apparatus; whilst others were designed for use against biting insects, since they were of a poisonous nature and were sprayed upon plants in order that they should be taken internally with the parts of the plant consumed by the pest.

We then turned to consider the second group—Nature's remedial measures on natural checks. Such followed Nature's laws, but can, when thoroughly understood, be pressed into the service of man. We stated that it is probable that most insects are subject to such checks, which are of two kinds—the parasitic or internal feeding group and the predaceous or external feeding group. It was shown that little was known of the first lot, which comprised the Ichneumon, Chalcid, and Tachnid flies. The second group are better known in some parts of the world, though this is not the case in India. Cultivators often send them as pests to their crops, overlooking the real one upon which the predaceous insect is actively feeding. It was pointed out that such should be studied and protected so as to make use of them by introducing them into parts of the country where they do not at present exist, but where they are likely to prove beneficial to combat pests. Instances of a tiger beetle and lady-bird beetle useful in this way were quoted. Stress was laid upon the point, however, that these checks should only be used by specialists after they have well studied them in the field. If used by the ignorant they are likely to do more harm than good and bring ridicule upon the question of the effective use of such.

Finally, the question of the remedies applicable through the direct agency of man was more fully considered. Although little is known upon the subject, and it was useless introducing to the uneducated ryot the up-to-date American apparatus, it was too early to say that spraying mixtures could not be effectively used under certain conditions in India, but their exhaustive trial by the expert was first necessary before they were recommended to the ryot. The life history of the Rice Hispa was instanced as a case in point, when by spraying the nurseries before the seedlings were put out into the fields much might be done to check the spread of the pest. But that the trial of such remedies must only be carried out by responsible persons who thoroughly understood what had to be done or they would be brought into disrepute. The question of fungus remedies is still in its infancy, but the experiments with locust fungus are not considered sufficient to warrant its condemnation in India and it would be advisable to further experiment with it.

Other remedial measures were of a different nature and depended upon an accurate knowledge of the habits of the insects. Of such, to quote a few instances, were the trench system for killing young locusts, searching out the holes of cricket pests and digging up and killing them, and the search for surgarcane stems infected by internal borers and cutting them out and burning them.

Lastly, we pointed out that the most satisfactory of all remedial measures would be effected by the study of the varieties of plants which

best resisted attacks and introducing them to the cultivator. That this system should be followed both in the case of seeds and plants and that great results might be expected from work of this nature.

4. *An ancient Assamese Fortification and the legends relating thereto.*
—By WALTER N. EDWARDS and H. H. MANN.

(Abstract.)

The paper describes the occurrence on the banks of the Buroi River, a tributary of the Brahmaputra from the North, in Assam, of an ancient Assamese fortification consisting of two walls, the longer one about three hundred yards long, and ten feet thick, built of faced stone, and facing the plains. These occur in dense cane jungle, just beyond British territory, in the Daphla country in the Himalayas. The Assamese origin of the fortifications is indicated by the type of brick with which the stones are occasionally mixed.

The local Daphla story attached to the fortification is that an Assamese Raja went into the hills and there defended himself from his own people in the plains, but no time or date is assigned, even vaguely, to it.

The whole consideration of the local traditions lead the authors to connect it with the fate of Arimatta, or Arimuri. (cir. 1250 A.D.) the local story of whose life is given, but about whose ultimate fate the traditions among the natives on the spot differ considerably.

5. *Noviciæ Indicæ*, XX. *Some additional Scrophularinæ.*—By D. PRAIN.

(Abstract.)

The writer, having had to assort the Indian material of *Scrophularinæ* in the Herbarium of the Royal Botanic Garden at Shibpur, finds that, owing to extensions of territory on both the North-Western and the North-Eastern frontiers of the Indian Empire, a number of species have now to be accounted for as Indian that are not dealt with in the *Flora of British India*. Following the practice which he commenced fifteen years ago, when this series of papers was begun, the writer now offers descriptions of the species that are new to India, arranged as nearly as possible after the manner of the *Flora* itself, to which the papers of this series are intended as supplements. These descriptions will necessarily benefit chiefly those members of the Society who may be botanising near the various Indian Frontiers; to render the paper of use to other botanical members as well, new localities are indicated for species that are already dealt with in the *Flora*.

The species here described as new to India are the following:—*Verbascum erianthum* Benth.; *Linaria Griffithii* Benth.; *Linaria odora* Bieb.; *Scrophularia cabulica* Benth.; *Adenosma inopinatum* n. sp.; *Adenosma hirsutum* Kurz; *Herpestis chamædryoides* H. B. & K.; *Torenia Benthamiana* Hance; *Vandellia punctata* n. sp.; *Phtheirospermum tenuisectum* Bur. & Franch.; *Pedicularis diffusus* Prain; *Lathraea purpurea* Cummins.

6. *On the acquisition of alar appendages by the Spruce form of Chermes abietis-piceæ.*—By E. P. STEBBING, I.F.S., F.L.S.

(Abstract.)

In July, 1893, Mr. Smythies, late Conservator of Forests, in the Central Provinces, discovered the winged form of a species of *Chermes* issuing from galls on Spruce (*Picea Morinda*) trees, at Deoban, in the Jaunsar Forests of the N.-W. Himalayas (elevation 9,200 ft.) These insects were identified by Mr. G. B. Buckton, F.R.S., as belonging to the species *Chermes abietis* of Linnæus and Kaltenbach.

In the spring and early summer of 1901 and 1902 I had opportunities of studying this *Chermes* and discovered the interesting and important fact that, whereas in the case of the European species, one generation of the insect is spent on the Spruce whilst another is passed upon the larch, in the N.-W. Himalayas the other generation of the parallel series is passed, not upon the larch which is not found in those mountains, but upon the silver fir (*Abies Webbiana*). For this reason, I call the insect provisionally *Chermes abietis-piceæ*.

The note deals shortly with the egg and larval stages, the latter being spent in chambers within the gall.

It then describes fully the way in which the diamond-shaped covers of the chambers, into which the gall is divided, open along their upper edges into a narrow lip-shaped slit by which the larvæ leave the Spruce gall or false cone, for it looks like a young fir cone through their final moult, and appear with their alar appendages folded up in tight little rolls upon the thorax. These latter almost immediately unroll under the influence of the sun and warm air currents. At this stage, the insect is remarkably brightly coloured. The colours soon darken, however, and about a couple of hours after leaving the chamber in the gall the insect is dull-coloured and inconspicuous.

PROCEEDINGS
OF THE
ASIATIC SOCIETY OF BENGAL.
FOR MAY, 1903.

The Monthly General Meeting of the Society was held on Wednesday, the 6th May, 1903, at 9-15 P.M.

THE HON'BLE MR. JUSTICE F. E. PARGITER, B.A., I.C.S., Vice-President, in the chair.

The following members were present:—

MR. S. A. Alim, Mr. J. Bathgate, Mr. I. H. Burkill, Mr. D. Hooper, Mr. C. Little, Mr. H. H. Mann, Major F. P. Maynard, I.M.S., Dr. E. D. Ross, Rai Bahadur Ram Brahma Sanyal, Pandit Yogesā Chandra Sastree, Dr. C. Schulten, Mr. E. P. Stebbing, Pandit Satis Chandra Vidyabhusana, Mr. E. Vredenburg.

Visitors:—Dr. M. M. Masoom, Mr. H. Maxwell-Lefroy, and Mr. D. H. W. Ritchie.

The Minutes of the last meeting were read and confirmed.

Fourteen presentations were announced.

Mr. W. N. Edwards was balloted for and elected an Ordinary Member.

It was announced that the Revd. H. O. Moore, Lt.-Col. G. F. A. Harris, I.M.S., and Mr. L. W. King had expressed a wish to withdraw from the Society.

The Chairman announced:—

1. That Dr. T. Bloch having returned from tour, had taken charge of the duties of the Philological Secretary from Dr. E. D. Ross.

2. That the Hon'ble Dr. Asutosh Mukhopadhyaya had been appointed to officiate as the Treasurer of the Society during the absence of Mr. C. R. Wilson.

The General Secretary reported the presentation of the following coins :—

From Babu Rampada Chatterjee, Sub-Deputy Collector, Kishenganj, Purnea—1 gold and 7 silver coins.

From the Government of United Provinces of Agra and Oudh—15 silver coins.

From the Bombay Branch, Royal Asiatic Society—2 gold coins.

The following papers were read :—

1. *The origin of the kap section of the Bārendra Class of Brahmans of Bengal.*—By PANDIT YOGEŚA CHANDRA SASTREE.

(Abstract.)

In the 12th century A.D. during the reign of Ballala Sena the number of the Brahmans brought to Bengal by Adisura became immensely increased. There were 350 Brahmans in Bārendrabhūmi and 750 in Rārhabhūmi. He sent 250 Brahmans from among 350 Bārendra Brahmans to the south-eastern provinces of India and divided the remaining 100 into three sections, namely : (1) Kulins, (2) Çuddhaçrotriyas, and (3) Kastaçrotriyas. Maitra, Bhima, Rudra, Sanyaminee, Lahiree, Bhaduree, Sadhu, and Bhadara, these 8 houses were the Kulins and Karanja, Nandanabasi, Bhattasali, Lauree, Champati, Jhampati, Atirtha and Kamadeva, these 8 houses were the Çuddha Çrotriyas. Udayanaobharya, the author of Kusumanjali, was born in the house of Bhaduree and Kulluka Bhaṭṭa, the author of Manvartha Muktavali, was born in the house of Nandanabasi. Besides the above 16 houses of Kulins and Suddha Srotriyas, there were 84 houses of Kasta Çrotriyas.

The *kap* section was originated from the Kulin under the following circumstances : one Nrisinha Laurial of Santipore, having been insulted in a dinner given by Sukadevacharya, of the village Brahmanbala, determined to raise his social position. In order to fulfil his object Nrisinha persuaded Madhu Maitra of Majgram, the most respectable Kulin among the Kulins of the then existing society, to marry his daughter. On account of this marriage Madhu was excommunicated from the society by the sons of his former wife.

On the annual Çrāddha day of Madhu's father he invited Dhain (देव) Bagchi, his brother-in-law, to dine at his house, as he did not expect to get any Brahman of his own village or its vicinity. On that day Dhain Bagchi having been obstructed by a fencing made by Madhu

while entering into his house, exclaimed—"Well Sir,—what a *kap* have you created here?" In reply, Madhu said: "Yes Sir, I have created a *kap* there." Afterwards he heard everything from Madhu and convened a meeting of Kulins and Srotriyas of Majgram and its vicinity to judge the conduct of Madhu's sons. In that meeting Madhu's sons were found guilty of disregarding and illtreating their father.

Thereupon Dhain Bagchi declared that the sons of Madhu Maitra, by his first wife, should not be henceforth classed among the Kulins. They should be called *kāp*. Their position in the society would be an intermediate one. He also declared that henceforth, should any Kulin touch their water or come in contact whatsoever with them, he also would be a *kap*. The latter declaration was afterwards modified by Raja Kamsa Narayana Ray, of Tahirpore, who ruled that a Kulin should not lose his Kulinship, unless he married the daughter of a *kap* or allowed his daughter to marry a *kap*. This rule is still in existence.

2. *Note on the information supplied by meteorological observations at Hill stations.*—By C. LITTLE, M.A.

In a paper read by me at the last monthly meeting of this Society I advocated the extension of meteorological observation to heights above the ground level, to which it has hitherto been confined in India. In the subsequent discussion the President asked whether the information recorded at Hill stations could not be used in discussing atmospheric conditions at the same level, but at a distance from the Hills. The answer to such a question could be on general lines only in the absence of direct observation, and so far as I remember the opinion I expressed was, that information collected on the summits of isolated peaks may in some respects be useful, but that in the Himalayas the influence of the ridges and valleys must deprive meteorological observations of much of their value except for discussions of local interest.

Since the meeting I have met with an instance in which the information collected at Hill stations not only does not appear to represent atmospheric conditions, but may even be misleading to those who may rely upon Hill stations in general discussions. As it appears to me to be important that there should be no misunderstanding in this matter, I have thought it advisable to offer this note to the Society with reference to the President's question, although it contains no information new to meteorologists.

In a paper in the December number of the *U.S. Monthly Weather Review*, on the semi-diurnal periods in the earth's atmosphere, Professor Frank H. Bigelow points out that the semi-diurnal period extends to a short distance only from the earth's surface as shown by the various

direct observations recorded from time to time in Europe and America. He says: "In past years, before it was recognised that the single period prevails throughout the atmosphere, except in its lowest layers, efforts were made to account for the surface double period in two ways (1) by referring it to a dynamic forced wave involving the entire atmosphere as was done by Lord Kelvin, and (2) by seeking to explore the possible connections between the observed waves and the manometric waves due to temperature effects in the lower strata." He goes on to point out how neither of these theories is satisfactory, and states "Like so many other scientific problems which are difficult of solution the trouble apparently lies in the fact that the necessary observations have not been made in the right place. It was supposed that the variations noted at the ground were common to the adjacent strata up to considerable heights, but since meteorologists have succeeded in getting some upper air observations this supposition turns out to be contrary to the fact."

I give herewith tracings showing the diurnal variation of pressure at Calcutta, Lahore, Simla, Trivandrum, and Angustia, also the variation of pressure between Lahore and Simla, from which it will be seen that the diurnal variation is much the same at Hill stations as in the plains, whereas observations in Europe and America would lead one to expect that at 7,000 feet above the plains the variation would be of quite a different form as given by Professor Bigelow. A copy of the curve given in the *Monthly Weather Review* is attached for comparison.

3. *Insecta Indica*, I. Coleoptera, I. *Notes on the Bostrichidæ of the Indian Region, Part I.*—By E. P. STEBBING, I.F.S.

(Abstract.)

With the exception of the *Lepidoptera* and *Rhynchota*, a portion of the *Hymenoptera*, a family (the *Mantodea*) of the *Orthoptera*, and another (*Cerambycidæ*) of the *Coleoptera*, but little work has up to the present been undertaken in the direction of cataloguing or monographing the rest of the known *Insecta* of the Indian Region. It is, therefore, extremely difficult for workers in the country to find out what is known about a family they may be interested in, and equally so to discover (without going to the collections themselves which is generally impossible) to what extent that family is represented by specimens in the Indian Museum at Calcutta.

The work already accomplished on these lines is easily summarised. It consists of:—

(1) A series of papers on the *Rhynchota* of the Indian Region by the late Mr. E. T. Atkinson, I.C.S. Read before the Asiatic Society and

afterwards published in Vols. LIII to LVII (1884 to 1888) of Part II of the Journal. Species represented in the Indian Museum collections are noted.

(2) A Catalogue of the Moths of India by E. C. Cotes and Colonel Swinhoe. Commenced in 1887, completed in 1889.

Species represented in the Indian Museum collections are noted.

(3) Catalogue of the Mantodea by Mr. J. Wood-Mason, Superintendent, Indian Museum. Two parts 1889 and 1891.

(4) Butterflies of India by L. de Nicéville, 3 Vols., 1883 to 1890. A fourth Volume is complete in manuscript. No notes have been made as to whether the species enumerated are represented in the Indian Museum collections: but as the Trustees of the Museum purchased the whole of Mr. de Nicéville's valuable collection, it is probable that most of the species referred to are in the Museum collections.

(5) The Moths of British India in the Fauna Series by Sir G. Hampson, Bart., Vols. I-IV, 1892-1896.

(6) The Hymenoptera of British India in the Fauna Series by Colonel C. Bingham, Vol. I, Bees, Wasps (1897). Vol. II, Ants and Cuckoo-Wasps (1903).

(7) The Rhynchota (Heteroptera) of British India in the Fauna Series, by Mr. W. L. Distant, 1 Vol. only published as yet (1902).

The second volume of Distant's *Rhynchota* and Gahans' volume on the Longicorn *Coleoptera* will be issued shortly.

No mention is made in the volumes of the Fauna Series as to whether the species described are present in the Indian Museum collections or not.

In addition to the above papers, new species are of almost monthly appearance in one or other of the numerous scientific serials and magazines which record such. These will not be listed here, as few will be obtainable by the ordinary student in the country. I may mention, however, the constant appearance of important papers in Indian Museum Notes which may be said to hold the position of being the central and chief entomological publishing centre for the Indian Region; the continuation of the Moth's of the Fauna Series in the Journal of the Bombay Natural History Society, which has also had some papers on Indian Hymenoptera and Butterflies, and the excellent papers on the Coccidæ of the Indian Region by Mr. Ernest Green in Indian Museum Notes.

It will, however, be evident that a vast amount of work still remains to be undertaken. In these papers an attempt will be made to add something to what has already been so successfully commenced. It is not proposed to limit their scope to any one Order, although the *Coleoptera* will receive considerable attention. In the case of every species

mentioned, a reference will be made as to the whether it is represented or otherwise in the Indian Museum Collections. If it is not, every effort will be made to procure specimens of it for these collections. New species in the Author's possession will, when possible, be described; and short references will be given as to distribution, habits, etc., of the insects noticed.

Coleoptera 1.

Notes on *Bostrichidae* of the Indian Region. Part I.

Until comparatively recently little was known about the *Bostrichidae*, which had been little studied. Mr. P. Lesne, of the Paris Museum, has remedied this state of affairs, and in a classical Monograph (still unfinished) has revised the whole of the group. In these papers, which are confined to the mention of species inhabiting the Indian Region, I have made use of this revision, adding where possible any fresh information upon the life-histories, distribution, etc., that research and my own personal observations, have brought to light.

The family may be considered of some economic importance, since the well-known bamboo borers which are widely distributed throughout the Indian Region belong to it.

Of the four tribes into which Mr. Lesne divides the family, but two, the *Dinoderinae* and *Bostrichidae*, have representatives in India.

The *Dinoderinae* are considered in this paper.

It includes four genera, of which two *Dinoderus* and *Rhizopertha* have representatives in the Indian Region.

Dinoderus is represented by five Indian species: *D. distinctus*, *D. pilifrons*, *D. punctatissimus*, *D. minutus* and *D. brevis*.

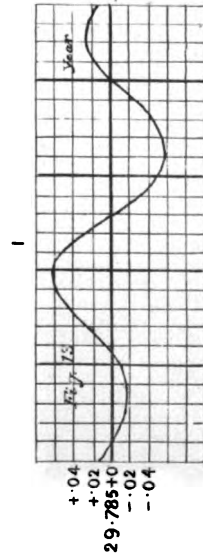
Rhizopertha is represented by one species, *Rhizopertha dominica*.

These six species are shortly treated of in the present paper.

[*Note*.—On reconsidering the question the Author has determined to publish the series of papers entitled *Insecta Indica* in Indian Museum Notes. This paper will therefore appear *in extenso* in that publication.]

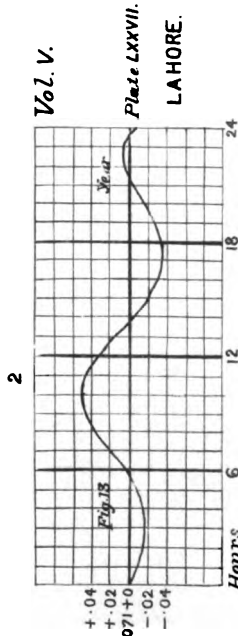
4. *Silajatu: an ancient Eastern Medicine*.—By DAVID HOOPER, F.C.S.





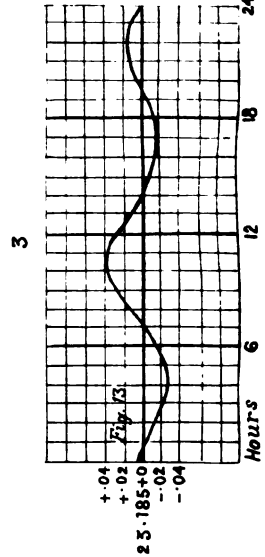
Vol. IX.

Plate LXVIII.
ALIPORE.



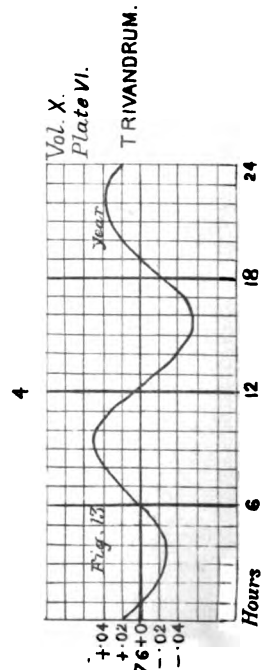
Vol. V.

Plate LXXVII.
LA HORE.



Vol. V.

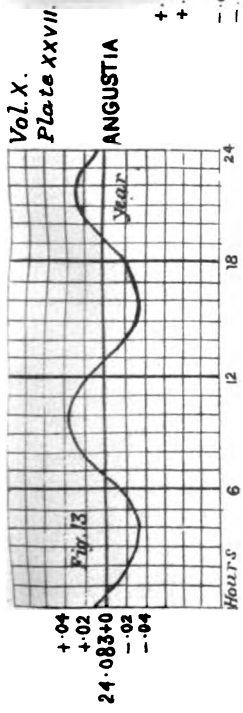
Plate LXXXII.
SIMLA.



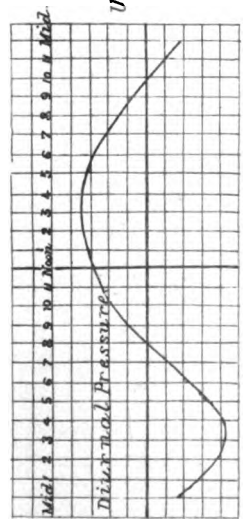
Vol. X.

Plate VI.
TRIVANDRUM.

5

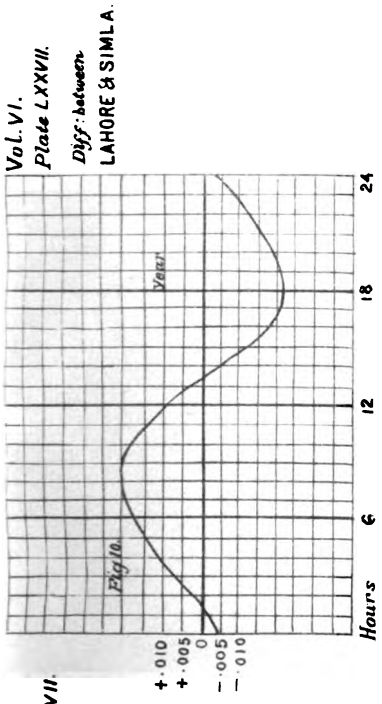


7



U.S. Weather Review.

6



The numbers to the right of the diagrams refer to the "Indian Meteorological Memoirs."



PROCEEDINGS
OF THE
ASIATIC SOCIETY OF BENGAL.
FOR JUNE, 1903.

The Monthly General Meeting of the Society was held on Wednesday, the 3rd June, 1903, at 9-15 P.M.

The HON. MR. JUSTICE F. E. PARGITER, B.A., I.C.S., Vice-President, in the chair.

The following members were present:—

Mr. J. Bathgate, Dr. T. Bloch, Mr. I. H. Burkill, Mr. D. Hooper, Mr. J. Macfarlane, Mr. C. Michie, Mr. L. Morshead, Dr. C. Schulten, Mr. E. P. Stebbing, Pandit Satis Chandra Vidyabhusana, Mr. E. Vredenburg.

Visitors:—Dr. Mirza Muhammad Masoom, The Hon. Mr. Justice Rampini, Mr. H. Sudlow.

The minutes of the last meeting were read and confirmed.

Fourteen presentations were announced.

Mr. Hari Nath De was balloted for and elected an Ordinary Member.

Mr. Burkill exhibited some irregular casings or tests of a faggot worm from Miraj, near Kolhapur. Faggot worms are the caterpillars of Psychid moths, which protect their soft bodies by making over them casings—faggot-like—of bits of thin twigs glued to the outside of a silken bag. Usually just so many bits of twig are used as are required to cover the circumference.

The casings shown were made of the white thorns of the Babul (*Acacia arabica*; L.); and in a few of them extra thorns had been cut and attached outside the regular casing by the blunt ends in such a way as to stand out at angles varying up to 45°. The casing, so made more spiny, may be more forbidding to a hungry bird, but must be particularly inconvenient to the worm which carries it through the forks of the small branches in search of food.

Where the extra spines had been added, it seemed to have been done in an attempt to lengthen the casing. Two worms had only added one extra spine each, but one worm had added eleven outside the fifteen which made its proper casing.

The Natural History Secretary, Mr. Stebbing, exhibited some Jute rope attacked by beetles and grubs, the external surface of the strands of the rope being pitted with shot holes. The insects performing this work are species of *Sitodrepa*, being closely allied to the well-known book-worm pest, *Sitodrepa panicea*, L., which bores little shot holes into books in our libraries, usually, guided by some unerring instinct, selecting the most valuable ones. The beetles exhibited are tiny, elongated, almost torpedo-shaped insects, yellowish brown in colour, the largest being just under $\frac{1}{4}$ th inch in total length, whilst the smaller is about half the size. The whole life cycle of the pest is spent within the jute rope, the beetles probably only leaving it during the pairing period. The beetle bores into the rope from the outside, making a horizontal tunnel until it reaches the centre, on reaching which it turns and bores parallel to the longitudinal axis. In the borings it lays its eggs; from these, little white grubs hatch out, which feed upon the internal rope fibre, reducing it to powder and consequently undermine its strength. Badly infested rope can be snapped across at the attacked spots, when the interior will be found full of grubs, pupæ, perhaps beetles, and brownish powder. The insect runs through, in all probability, a number of generations in the year, a life cycle in the hot weather or rains being probably passed through in three months, i.e., the beetle lays eggs, the eggs hatch into grubs, the latter become full fed and change to pupæ and the latter giving rise to mature beetles within this period. This insect belongs to the same family (Ptinidæ), though to a different genus, as the well-known so-called cheroot 'weevil,' *Lasioderma testaceum*. The jute rope exhibited had a diameter of $\frac{1}{4}$ inch. It is probable that thicker ones are also attacked. Washing the strands over with turpentine would doubtless act as a preventative to attack, whilst at the same time destroying the insects at work inside.

Mr. Stebbing also exhibited some live caterpillars, probably belong-

ing to the family *Tineidæ*, but perhaps very closely related to one or two of the genera of the family *Psychidæ*, specimens of whose larval cases were exhibited by Mr. Burkill: the classification of some of these genera being still open to much revision. The insects in question were extremely curious. They had been found attacking the hair of a mounted *Ovis hodgsoni* head. The long greyish hair had been almost entirely destroyed by these small caterpillars. The caterpillars are little canary-yellow insects with bright brown heads. They live inside a little flat elongated case, made apparently from the hairs, which are spun into a close parchment-like material. The case is left open at both ends, and the caterpillars make use of this peculiarity, appearing now at one end and now at the other, the diameter being sufficiently wide at the middle of the case to enable the larva to turn round inside by doubling up upon itself. When it wishes to do this it attaches the end of the case by a silken strand to the surface upon which it is crawling, backs down the case, turns round inside and appears at the other end, the mouth at the end of the case it has left closing automatically, whilst that at the other end opens. Mr. Stebbing mentioned that the specimens had been only brought to him that morning by the Head Taxidermist of the Indian Museum, and so he had not yet been able to observe the further stages of its life-history. From the above few remarks they are likely to prove of great interest. The hair of the head attacked was ruined.

The following papers were read:—

1. *A note on the Moran language of Upper Assam.*—By MAJOR P. R. T. GURDON, I.A.

(Abstract.)

This paper gives a vocabulary of the language of the Morans, a tribe of Upper Assam, together with the corresponding words in the Kachari, Dimāsā (or Hill Kachari) languages, and Hodgson's Bodo, which probably is Mech. The comparison proves a strong linguistic affinity between them, and the same probably exists between Deori, Chūtiya and the Garo language also, both of which belong to the Bodo group.

2. *Materials for a Flora of the Malay Peninsula, No. 14.*—By SIR GEORGE KING, K.C.I.E., F.R.S., and J. SYKES GAMBLE, C.I.E., F.R.S.

(Abstract.)

The paper now presented to the Society is the joint work of Mr. J. S. Gamble, F.R.S., C.I.E., late of the Indian Forest Department, and of Sir George King, F.R.S., late Superintendent of the Royal Botanic Garden, Calcutta. It contains an account of the Natural Order *Capri-*

foliaceæ, which is entirely the work of Mr. Gamble. The larger part of it is, however, occupied by an account of those genera of the large Order *Rubiaceæ* which have more than one ovule in each cell of the ovary. The text of the paper devoted to this order is preceded by a key to these genera, of which there are thirty—none of them being new. The species of *Rubiaceæ* described number 164, and of these 50 are new. In a second paper on *Rubiaceæ* an account will be given of the genera which are characterised by having only a single ovule in each cell of the ovary, and that paper will be accompanied by a key to these uni-ovular genera.

3. *Note on the Faqirs of Baliya-Dighi in Dinajpur.*—By MAULAVI ABDUL WALLI.

(Abstract.)

This order of Faqirs belongs to the followers of Shah Madar. They reside at Mauza Baliya-Dighi, within the Hemtabad police station in the district of Dinajpur. Their beliefs and practices are in many ways Anti-Islamic. They grow long hair on their head, put on coloured cloths, and use shackles of iron and long iron tongs. They never take food touched by other persons, and subsist mainly on unboiled rice, clarified butter and salt. They do not eat fish or meat. It would seem that they are a survival of a corrupt form of Sufism mixed with Hindu ideas. They possess a *Sanad* granted by Shah Shuja to Shah Sultan Hasan Muria Buraḥna, of which a copy is published in this paper, and which gives curious details of the former powers and privileges of these Faqirs.

4. *On some Archæological remains in the District of Rajshahi.*—By MAULAVI ABDUL WALLI.

(Abstract.)

This is a note on two ancient mosques, one at Bagha and the other at Kusumba, in the District of Rajshahi. It contains a copy of an official report on them, written by Mr. J. S. Carstairs in 1872, and some more details of the traditions attached to each mosque. From inscriptions, which still exist at both places, it appears that the Bagha Mosque was built in 930 A.H. = 1523-4 A.D. by Nuṣrat Shāh, the son of Ḥusain Shāh, while the Kusumba Mosque was built during the reign of Ghiyāṣuddin Bahādur Shāh, the son of Muḥammad Ghāzi, of the Sūri family, in the Hijri year 966, which corresponds to 1558-9 A.D. Although there is a large endowment connected with the Bagha Mosque, it has been allowed to fall into a bad state of repair.

5. *Note on the discovery of Thanasimus sp. prox. nigricollis* Lew. in the N.-W. Himalayas, with some remarks on its life-history.—By E. P. STEBBING.

(Abstract.)

In June 1902, whilst touring in the Tehri Garhwal forests in the N.-W. Himalayas, the writer discovered and took a number of specimens of both larvæ and adults of a species of *Thanasimus prox. nigricollis* Lew. a beetle of the family *Oleridæ*. After remarking upon the close affinities some of the insects found in the N.-W. Himalayas appear to have with those of parts of Japan, the author goes on to show the importance of the discovery of the *Thanasimus* in the valuable coniferous forests in which it was found. It was pointed out that the insect is an eminently predaceous one, and feeds upon both bark and wood-boring *Scolytidæ*, amongst the species fed upon being some serious conifer pests. It thus takes the place in North India of the European *T. formicarius* which has the same habits in Continental forests, and thus forms one of the most valuable of the insect allies of the forester in those parts. So great is the importance attached to this latter insect in fact that, during some severe bark-boring attacks experienced in America in the pine forests of West Virginia, Virginia and Maryville, between 1890-1892, a well known American entomologist, Dr. Hopkins, was deputed to Europe to make a collection of living larvæ and adults of the predaceous clerid for importation into America. This experiment was conducted to a satisfactory issue.

Our Indian *Thanasimus* has pink elongated larvæ which feed upon the larvæ of the Scolyted beetle upon which it itself as an adult lives, and it is thus of great service during both the grub and adult stages of its existence. The pink grubs seek out the bark-boring grubs in the galleries in the bark of the tree. The clerid beetles, on the other hand, spend the whole of their life outside the tree, and seize the bark beetles upon the bark of the trees either whilst engaged in boring into or issuing from the tree.

The *Thanasimus* adult is probably to be found during most of the months between April and October. The writer by experiment has proved it to feed upon 10 different species of Scolytid beetles.

As the Indian *Thanasimus* is much larger than its European confrère, being almost double the size, it is probably of even greater value in the forest, since it consumes a greater number of beetles during its existence. The beetles is polygamous.

As an instance of the immense amount of good such an insect can do in the forest the following illustration of the immense powers of rapid reproduction possessed by Scolytidæ is quoted.

A calculation was made that from eggs laid by the two species *Scolytus major* and *minor*, Steb. MS., in a deodar tree 100 ft. in height to the spot where the crown commenced and 3 ft. in diameter at the base, some 56,300 adults issued in July from eggs laid in April-May, due allowance being made for a large mortality. These 56,300 beetles at once laid the eggs of the second generation in other trees, and taking but 50 per cent. of the resulting larvæ as arriving at maturity, the enormous total of 1,550,000 adults is arrived at, all the result of the April eggs. This shows the rapid rate at which these beetles increase under favourable conditions.

6. *Note about certain sections of the Kakars living in the Zhob District of Baluchistan.* Collected by RAI SAHIB DIWAN JAMIAT RAI, Special Assistant to the Superintendent, Imperial Gazetteer, Baluchistan. Communicated by the Anthropological Secretary.

(Abstract.)

The Kakars are an Afghan tribe in Baluchistan. They amount to over one hundred thousand persons, and are to be found in the largest numbers in Zhob, Quetta-Pishin, and Thal-Chotiali. The paper describes some social customs prevailing among the Mehtarzai and Sargara sections of this tribe, especially ceremonies at child-birth, betrothal and marriage, rain-compelling charms, and other usages. It also gives a legendary account of the origin of the Sanzar Khel section of the Kakars, and a description of some of the primitive Kakar dwellings in Tang Haidarzai.

7. *Exorcism of Wild Animals in the Sunderbans.*—By D. SUNDER, Commissioner in the Sunderbans. Communicated by the Anthropological Secretary.

(Abstract.)

This is an interesting account on the charms used by the fakirs in the Sunderbans to chase away tigers. Between the months of October and May crowds of wood-cutters come in boats from Barisal, Khulna, Faridpur, Calcutta, for the purpose of cutting timber. Their belief in the power of the fakir to protect them against the attacks of wild animals, especially tigers, is so strong that nothing will induce them to proceed to the jungles without their fakir, and no work is begun in the forests by wood-cutters until the fakir has gone through his charms and incantations, and has performed his pujas for the dispersion of all noxious animals. These are described with great detail. The prayers are directed to a curious mixture of gods and godlings. We find there Jagabandhu, Mahadev, Monsha (the goddess of Serpents), Rupapori (a

spirit of the jungles), Kali-Mai, Ospori (a jungle spirit having wings), Berra Thakurain (the wife of Dakho Raja, the father of Durga), Rakhya Chand (another form of Kali), Ghazi Saheb and his brother Kalu, Chawal Pir, Ram Ghazi and Bāstu Devatā (the goddess of the earth). Further, we have Hingli, Bingli, and Mangala, said to be deities of the jungles and the fathers of tigers, also Azrael the rider, alleged to be a spirit who is always on the backs of tigers. If it happens that the fakir himself, instead of the wood-cutters, is carried off by the tiger, the people often explain this by saying that, because the propitiation of the deities of the jungle in those places had been neglected for a long time, the tigers there consequently had become very angry.

8. *The occurrence of Melanterite (Ferrous Sulphate) in Baluchistan.*—By DAVID HOOPER, F.C.S.

9. *Notes on Chirand in the Saran District.*—By NUNDO LALL DEY.

(Abstract.)

Chirand is six miles to the East of Chupra. It contains an ancient fort, upon which four Hindu temples have been built. There also stands a mosque, built by Husain Shah of Bengal in 1503 A. D. Numerous Buddhist images had been found there, and ancient mounds are seen at several places close to it. The author explains the word 'Chirand' as a compound of *chir*, meaning 'a portion cut off' and *and*, which he takes as a corruption of *Ānanda*. There is a tradition that the remains of *Ānanda*, the famous disciple of Buddha, were divided into two parts after cremation, and that one half was deposited in the Mahāvāna-Kūṭāgāra, in one of the suburbs of Vaisāli. The latter place was shown to the Chinese pilgrims. There is, further, a legend still current at Chirand that it was the capital of king Mayāradhvaja, who sawed down his son in order to satisfy the craving for human flesh of Siva, who came to the king in the disguise of an old Brahman to test his generosity. Combining all these facts, the author suggests an old mound close to Chirand as the probable site of the tower, containing half of *Ānanda*'s remains, and he sides with Dr. Hoey as regards the position Vaisāli who has recently located it at Chirand, in contradiction to Basar, in the Muzaffarpur District, which used to be the generally accepted site of Vaisāli. However this may be, it appears that the ruins at Chirand deserve a careful exploration, as they are promising of important results.

10. *The Mughs of the Sundarbans, Backergunge District.*—By D. SUNDER, Commissioner in the Sunderbans. Communicated by the Anthropological Secretary.

[The text in this section is extremely faint and illegible due to low contrast and noise. It appears to be a large block of text, possibly a list or a series of paragraphs.]

[The text in this section is also extremely faint and illegible, appearing as a few lines of text at the bottom of the page.]

PROCEEDINGS
OF THE
ASIATIC SOCIETY OF BENGAL.
FOR JULY, 1903.

The Monthly General Meeting of the Society was held on Wednesday, the 1st July, 1903, at 9-15 P. M.

The Hon. Mr. Justice F. E. Pargiter, B.A., I.C.S., Vice-President, in the chair.

The following members were present:—

Mr. J. Bathgate, Dr. T. Bloch, Mr. I. H. Burkill, The Rev. E. Francotte, S.J., Mr. T. H. Holland, Mr. H. E. Kempthorne, Mr. W. A. Lee, Mr. C. Little, Major F. P. Maynard, I.M.S., Mr. J. Nicoll, Mahamahapadhyaya Haraprasad Shastri, Mr. E. P. Stebbing, Pandit Satis Chandra Vidyabhusan, Mr. E. Vredenburg, and Mr. D. R. Wallace.

Visitors:—The Hon. Mr. Justice Rampini, Mr. B. R. Simpson, and Mr. G. Wallace.

The minutes of the last meeting were read and confirmed.

Twenty-nine presentations were announced.

Maharaja Jagadindra Nath Roy Bahadur and Mr. H. Maxwell Lefroy were balloted for and elected Ordinary Members.

The Chairman announced that the Elliott Prize for Scientific Research for the year 1902 had not been awarded, as the essay received in competition was not of sufficient merit to justify the award of the Prize.

The Chairman also announced that Mr. T. H. Holland had been elected a member of the Council of the Society.

The General Secretary reported that the Hon. Mr. Justice F. E. Pargiter had been appointed to serve on the Finance and Philological Committees, and Dr. E. D. Ross on the Library Committee of the Society during the present year.

The Natural History Secretary exhibited pupæ and moths, together with drawings of all the stages in the life-history of the Tineid larvæ shown at the last meeting feeding upon hair taken from a badly attacked mounted head of an *Ovis hodgsoni*. The first of these larvæ changed to pupæ on the 6th June, and others followed suit on the following days, until by the 25th all had pupated. In doing this, they attach themselves either amongst the hairs by means of thin silken strands, or more often collect gregariously together in bunches. The covers of the box in which they were kept were all made in this way, the larvæ congregating together and spinning their cases together. They pupate within the case. Pupation lasts but a few days only, the first moths issuing on 11th June, whilst others followed on 14th and subsequent days, and are still emerging. The pupæ moves itself to the mouth of the case, when the moth is ready to emerge, and protrudes beyond it to facilitate the exit of the moth. Thus, when the latter has escaped, the empty pupal case remains projecting from the mouth. The pupa is brown in colour and very small. Length 6 millim. The figure shows the larval cases collected gregariously together, and an empty pupal case projecting from the mouth of the larval case.

The moth is a tiny grey insect with very long fringes to its wings, which are longish and narrow and covered with long scales especially near the inner angles of the lower wings. Wing Exp.—13·2 millim.

Mr. Stebbing also exhibited a small species of *Thanasimus prox. formicarius*, which is predaceous upon the larvæ of the Bamboo shot-borer *Bostrichus pilifrons*, an insect known as 'ghoong' in many parts of India. The larvæ are long and white in colour, and also feed upon the Bostrichid larvæ in their galleries in the bamboos. When full-fed they pupate in the bamboo, and the beetles live inside it and feed upon the shot-borer's larvæ. They probably only leave the galleries to pair. They are very active and excessively voracious.

This beetle will be described in a subsequent paper.

The exhibit shows the larvæ, pupæ and adults of the *Thanasimus*, as also the larvæ, pupæ and adults of the *Bostrichus pilifrons*.

The following papers were read :—

1. *Notes on Sundribun Plants.*—By D. PRAIN.

The writer has recently published a paper (*Records, Bot. Survey of India*, vol. ii. n. 4) dealing with the *Flora of the Sundribuns*. He had occasion there to call attention to the fact that a number of species have been recorded from this region in Roxburgh's *Hortus Bengalensis*, published in 1814, and that a few of the species there mentioned have not been collected in the area since Roxburgh's time. The specimens themselves that would have verified Roxburgh's statements were removed from Calcutta in 1828 and are now entirely lost to India. Those, however, who have to follow Roxburgh's published work are so struck by the closeness and accuracy of his observations that, when he makes a definite statement, they accept its correctness in the face of any amount of negative evidence.

The species that are recorded from the Sundribuns by Roxburgh, for which the record had been unverified by subsequently collected specimens when the writer's paper went to press hardly a year ago, were *Flemingia congesta*, *Mesoneuron cucullatum*, *Bruguiera parviflora*, *Arthrocnemum indicum*, *Salicornia brachiata*, *Dendrobium Pierardi* and *Pteris vittata*. Since the paper was sent to the printer, a native collector, who had been sent to obtain seeds of various Sundribun species, has brought in specimens of *Salicornia brachiata*, which he found in abundance not far from Matla (Canning Town). And immediately after the publication of the paper the writer received from a careful observer, Mr. J. Lancaster, Secretary to the Agricultural and Horticultural Society of India, an interesting note regarding *Dendrobium Pierardi*, which is worthy of being recorded.

In June 1896, Mr. Lancaster, being unwell, was sent for a fortnight's change of air by Sir C. C. Stevens, then President of the Society, and through the kindness of Capt. Petley was enabled to join the "Tigris" which was proceeding to stock the Refuge-Houses along the seaface of the Sundribuns.

The steamer went direct to the most distant Refuge-House, two days' journey east of the Matla. While running down the lane of water leading to the house the boat took the ground, a not unusual accident at the sharp turn known as the Devil's Elbow.

The delay consequent on this was taken advantage of by Mr. Lancaster to examine through a glass the islands east and west of the position. Detecting to the east, on Bangadhony Island, a tree rather taller than usual with a forked stem and apparently a clump of orchids in the fork, Mr. Lancaster accompanied by Mr. Hogg, late of the Calcutta Police, proceeded to this tree, and climbing its gnarled and twisted trunk,

obtained a clump of a *Dendrobium*. This he mounted on his return to Calcutta, and obtained flowers later on which proved it to be *Dendrobium Pierardi*. The plant is still alive in the Society's garden at Ali-pur, and though the block on which it was originally placed has decayed, its roots have laid hold of some wire netting and *Vanda tores* stems, and it thrives in quite as exposed a position as that in which it was found.⁷

Thus, though the writer was unaware of the fact, Roxburgh's record of *Dendrobium Pierardi* from the Sundribuns area, which by the way is the *locus classicus* for the species, had already been amply confirmed, and there is little doubt that similar happy accidents will in time lead to a confirmation of Roxburgh's other and as yet unverified records. The writer would esteem it a favour if members of the Asiatic Society interested in the Sundribuns would communicate with him should they contemplate visiting on official duty, or for purposes of sport, this very enticing region, when he would be glad to indicate to them what, from the botanical standpoint, still calls for observation and investigation.*

2. *Notes on the Grām Devatā or tutelary village deity of Orissa*.—By JAMINI MOHAN DAS, Deputy Magistrate, Cuttack. (Communicated by the Anthropological Secretary.)

(ABSTRACT.)

Throughout the plains of Orissa, every village has a tutelary goddess, called Grām Devatā or Ṭhākuraṇī. She is generally established under the shade of a tree, and commonly represented by a piece of shapeless stone, surrounded by several smaller pieces representing her children. Carved images are also met with, though very rarely, and sometimes the trunk of a tree, supposed to possess supernatural properties, is worshipped as the village Goddess. The Kandhs of Nāyagarh, however, believe their village deity to be of the male sex, and use a wooden post, 2½ feet high, to represent it. Besides the generic name, Grām Devatā, each Goddess has a specific name, which is generally one of the thousand names of Kālī. The most noticeable feature of the Grām Devatā worship is the non-priestly caste of the men who conduct it. In the plains, the Nāpī, Māli, Rāul, or Bhopā is usually the priest,

* Since this paper was read, the Rev. Mr. Le Quesne, of Bhowanipur, has kindly communicated plants of *Bandia dumetorum*, raised from seeds collected in an abandoned Sundribun settlement at Gaoroba. The writer has also just learned that in other places which mark the sites of habitations of the old dacoits and salt-smugglers who infested the Sundribuns, are to be found growing examples of *Mimusops Elengi*—the Bakūl tree.

while the aborigines select men from their own tribes. The worship of the village Goddess is largely supported by small rent-free grants of land, which is held by the priest, who gets in addition daily doles from the rich men of the village, and weekly doles from the poorer people. Thursday is considered specially auspicious for the regular *pūjā* of the Goddess. Special offerings are made at all festive occasions, and the *Thākuraṅgi* receives particular attention on the out-break of epidemic diseases. The ceremonies performed on these occasions are the same as elsewhere in India. The people have a peculiar means of knowing the wishes and decrees of the Goddess. In almost every village is a male or female medium, called *Kālaṣi*, through whom the Goddess communicates with the people. He appears before the Goddess holding two sticks in his hands, and swings his body to and fro. After a time he begins to tremble, and in the course of his confused mutterings gives out some secrets of the village, to win the confidence of the people. He then predicts evil to some and good to others, prescribing at the same time the remedies required in the shape of special offerings to the Goddess and special favours to himself. Certain village Goddesses in the plains are regarded as "Parama-Vaiṣṇavis," and animal sacrifices are not allowed before them. Such sacrifices are also sparingly made before the other Goddesses, probably owing to the spread of Vaishnavism. Fowls are also let loose before some of the Goddesses by the upper classes of Hindus, who do not eat them, and they are killed by the lower classes who eat them.

Finally, the author points to the practice of animal sacrifices, the offerings of fowls, the relegation of the priestly function to the Sudra castes, and the shapeless form of the images as indicating the aboriginal origin of this form of worship.

3. *A note on the life-history of Oermes abietis-piceæ, Steb. Ms.—By E. P. STEBBING.*

(ABSTRACT.)

In a previous paper read before this Society at the Meeting held on April 1st last, I gave an account of the mode of development of the alar appendages of the Spruce form of *Oermes abietis-piceæ*. It is my intution here to describe in detail the observations I have up to the present been able to make on the life-history of this exceedingly remarkable and interesting insect, which lives at elevations of between 7000 to 9500 feet upon Spruce and silver fir trees in the N.-W. Himalayas.

The genus *Oermes* belongs to the great family *Aphidæ* or Plant Blights, one of the families of the *Ehynchofa* or bugs, insects provided with a proboscis or beak by means of which they suck out the juices of plants.

It is not too much to say that man himself would be exterminated off the face of the earth if this particular order of insects were not kept in check by their numerous predaceous and parasitic foes. But the genus is especially remarkable, in common with the well-known *Phylloxera* which commits such serious depredations in European vineyards, owing to the fact that one generation of individuals assume different habits to the one that has preceded them, and so set up the phenomenon known as 'parallel series.' It is well-known that in the case of the *Phylloxera*, one generation lives in galls upon the leaves, whilst a succeeding one lives underground upon the roots of the vine. There is a European form of the *Chermes* here described, and its life-history has been the subject of the most lively discussion amongst European scientists, the investigations of such renowned observers as Blochmann, Dreyfus and Cholodkovsky standing out the most prominently. Perhaps the latter may be said to have given us the most lucid explanation in his paper published as recently as 1890. This European form, which is named *Chermes abietis-laricis*, lives upon the Spruce and larch. The writer discovered the *Chermes* here dealt with in the N.-W. Himalayas. In this region the larch does not exist, and its place is taken by the Silver fir which is generally to be found associated with the Spruce. The life-history of the insect upon these trees, which appears to differ in a few points from that of its European confrere, may be briefly summarised as follows:—A wingless parthenogenetic female of the *Chermes* either deposits her eggs upon Spruce twigs and branches in the autumn, or hibernates through the winter upon the tree and lays her eggs in the April of the following year. These eggs, which are numerous, hatch out at the beginning of May, and the young larvæ collect round the base of the young developing needles on the branches and by suction cause them to swell up at their bases. The needles thus coalesce, enclosing the young larvæ, into a gall or pseudo-cone. This grows on until it has the appearance of a young, green fir-cone. Inside it becomes partitioned off into a number of cells, in each of which a number of young larvæ live and grow to maturity. In the middle of July they are ready to undergo their last moult. The cone then opens by shrinkage at the edges of the little doors, with one of which each compartment is furnished, and the little fat purple larvæ crawl out on to the outside of the false cone. They at once shed their last skin and become perfect winged insects, most gorgeously coloured, though these colours fade within a few hours. These insects now take on different habits; some of them remain on the Spruce and lay eggs thereon out of which young are hatched, which probably grow into the hibernating females, whose offspring next year produce the galls upon the tree. But another portion migrate to the Silver fir (in

Europe it would be the larch); here they lay eggs from which arise the wingless parthenogenetic females which either lay eggs upon the stems and branches of the new or secondary plant in the autumn or hibernate on it through the winter and lay eggs in April. These eggs are invariably laid within white cottony masses which render their presence upon the trees easily perceivable. These eggs hatch out in the beginning of May, and the young, crimson-coloured larvæ crawl up on to the newly-developed spring needles of the tree and suck out their juices. Part of these become nymphs and go on to the winged condition, and then about the middle of July fly back to the Spruce, whilst the rest remain wingless and lay eggs that give rise to yet another wingless generation; in fact, it may be said that a second pair of parallel series is formed upon the Silver fir, of which one is wingless and exclusively parthenogenetic and continues to live for an indefinite period upon the tree, whilst the other becomes winged and returns to the Spruce. I have not as yet traced the further life-history of these winged individuals beyond ascertaining the fact that they really do return to that tree. It is probable, however, that they at once lay eggs, which give rise to a sexual generation. These latter lay upon the Spruce the egg which gives rise to the wingless parthenogenetic ♀ which starts the life-cycle by laying the eggs from which hatch out the young larvæ whose action produces the galls or pseudo-cones.

It is considered probable that it will be held that the discovery and working out of the life-histories of this insect and that of the *Thanasimus* sp. (the Clerid predaceous upon bark-beetles) whose habits were discussed in a paper read at the last Meeting, are amongst the most important, as they are scientifically as well as economically amongst the most interesting of the entomological investigations made in this country.

4. *Notes on the Hindus in the Nuskhî Tahsil of the Chagai Agency in Baluchistan.*—By H. RAI SAHIB DIWAN JAMIAT RAI, *Special Assistant to the Superintendent, Imperial Gazetteer, Baluchistan.* Communicated by the *Anthropological Secretary.*

(ABSTRACT.)

These notes are the outcome of enquiries made from some of the principal Hindu shop-keepers of Nuskhî. There are in all about thirty families, old inhabitants, some of whom have been in the Tahsil for five generations. They are all Arora Hindus, and the majority of them came from Kachi and Shikarpur. They all know Brahui, and most of the men speak Baluchi also, but in their homes they speak the Jatki dialect. There are also about twenty families in Shorawak, in Afghan territory. They have not very clear ideas about their religion. The

majority profess Sikhism, but the Shikarpuris worship Darya Baksh, the River Pir of Sind. So far as is known, none of the Hindus have been converted to Muhammedanism. There is, however, an instance of a Hindu taking a Muhammedan girl as wife. Hindus have been in the habit of buying and keeping Muhammedan slaves. These Hindus have some peculiar usages of their own. Thus a Muhammedan can clean his pots with ashes, sand, or dust, but he must not wash them with water. A Muhammedan may bring them water in a skin, a brass pot, or an earthen pitcher. A Hindu may wash with water the baking-stove belonging to a Muhammedan, sprinkle salt on it, and then bake his bread on it. A Muhammedan must not touch food belonging to a Hindu, but he may carry it in a pot or a piece of cloth. The author then goes into details with regard to the ceremonies at betrothal, marriage, child-birth and death; but these do not appear to differ essentially from the customs prevailing amongst the Hindus in the Panjab.

5. *The exceptional heat in Bengal, and its probable cause.*—By C. LITTLE, M.A.

(ABSTRACT.)

The temperature tables given for Calcutta and other parts of India show that between the middle of April and the 25th of May excessive heat continued without interruption, though not without fluctuation in Bengal; while beyond the western frontier of Bengal there was either normal, or, as in the north-west, exceptionally low temperature. The progressive character of the temperature recorded at Alipore, since the establishment of the observatory there, is referred to; and it is pointed out that 107°.4 registered during the past season is the highest recorded with one exception, *viz.*, 108°.2 on the 12th of June, 1901. This latter value is to some extent of doubtful accuracy. It is also shown that the temperature at Calcutta exceeded 103° eleven times during April and May 1903, whereas during the previous ten years the average number of days on which that figure was exceeded was less than three. It is claimed that excessive temperature of that nature as regards intensity and duration in Bengal, must, in the absence of relatively high temperatures in the west, be due to well defined causes not indicated by the ground-level observations. Reference is made to the direction of the upper current, and the writer states that his own observations of the course followed by thunderstorms during the past season as well as the cloud movement, whenever cloud was visible, indicate that the air-current overhead was, during the period of heat, from the west instead of from the more usual north-westerly direction. Assuming that a westerly current from Central India is warmer than a north-westerly current

from the directions of the Himalayas and Central Asia, it is shown that the more abnormal features of the weather in Bengal may be explained, the excessive heat by impaired convection, and the failure of thunderstorms by the diminished vertical temperature gradient.

6. *Notes about the Wanechis (Spin Tarin Afghans) of the Shahrig Tahsil, Thal Chotiali, Baluchistan.*—By RAI SAHIB JAMIAT RAI, *Special Assistant to the Superintendent, Imperial Gazetteer, Baluchistan.* Communicated by the Anthropological Secretary.

(ABSTRACT.)

The Wanechis are a section of the Spin Tarin Afghans. These, with a few exceptions, have left their original home in Pishin, and migrated southwards to Shahrig and Duki Tahsils of Thal Chotiali. Numerically their strongest group is the Wanechi, which is said to come of an alien stock. Theoretically an Afghan tribe, as we find it in Baluchistan, is constituted from a number of kindred groups of agnates. That is to say, descent is through the father, and the son inherits the blood of the father. Affiliated with a good many tribes, however, are to be found a certain number of alien groups known as *Mindün* or *Hamsāyah*. The latter term means: "living in the same shade." These groups are admittedly not united to the tribe by kinship. The number of Wanechis according to the last census is 2,802, and the sections specified are twenty. The paper then goes into further details with regard to the sub-divisions or claus making up the various sections, their origin, their grouping in time of tribal warfare, the division of looted property, transit-dues levied by some tribes, their marriage customs, and compensations paid for various offences, such as murder, injury, theft and adultery.

PROCEEDINGS
OF THE
ASIATIC SOCIETY OF BENGAL.
FOR AUGUST, 1903.

The Monthly General Meeting of the Society was held on Wednesday, the 5th August, 1903, at 9-15 P.M.

THE HON'BLE MR. C. W. BOLTON, C.S.I., I.C.S., President, in the chair.

The following members were present :—

Mr. J. Bathgate, Mr. I. H. Burkill, Dr. A. Caddy, Mr. J. N. Das-Gupta, Dr. W. C. Hossack, Mr. C. Little, Mr. J. Macfarlane, Kumar Ramessur Maliah, The Hon'ble Mr. Justice F. E. Pargiter, Mr. C. G. Rogers, Pandit Yogesā Chandra Sastree, Mahamahopadhyaya Haraprasad Shastri, Mr. E. P. Stebbing, Pandit Satis Chandra Vidyabhusana, Mr. E. Vredenburg, and Mr. E. H. Walsh.

Visitors :—Mr. I. A. Black, Mr. R. Enthoven, Mr. L. L. Fermor and Mr. H. G. Pearson.

The minutes of the last meeting were read and confirmed.

Thirty-three presentations were announced.

Mr. Abdur Rahim and Dr. Mirza Muhammad Masoom were ballotted for and elected Ordinary Members.

It was announced that Lt.-Col. C. H. E. Adamson had expressed a wish to withdraw from the Society.

The General Secretary reported the death of Babu Ram Din Singh, an Ordinary Member of the Society.

With reference to a Circular issued by a Committee of the British Association for the purpose of collecting photographs of Anthropological interest, printed in the Proceedings of the Society for April 1903, the President announced that the Council had agreed to the establishment of a local Indian depôt for the storage of negatives, and the Society had further undertaken to store the negatives.

The President also announced that the Council had approved of the proposal of the Hon'ble Mr. Justice F. E. Pargiter, Vice-President, to use the Society's Meeting Hall for the purpose of arranging a popular lecture on some scientific subject on the 10th August, 1903, at 9-15 p.m. The Council had further undertaken the business of the lecture itself at a charge to cover expenses incurred from the sale proceeds of the tickets, and entrusted the matter to a Sub-Committee consisting of the Vice-President, Mr. E. P. Stebbing, the Hon'ble Dr. Asutosh Mukhopadhyaya, and the General Secretary. Members of the Society will be admitted free and tickets sold to Scientific Institutions at a large reduction.

The General Secretary reported :—

1. That Mr. T. H. Holland had been appointed to serve on the Finance Committee of the Society during the present year.
2. That the order of Council relative to the Library being open to the members of the Society from 10 A.M. to 2 P.M. on Sundays, had been revoked.
3. That the Council had appointed Pandit Mahendra Nath Mukhopadhyaya as the Pandit for the Oriental Library of the Society in the place of Pandit Charu Chandra Bhattacharyya, resigned.

The Natural History Secretary, Mr. Stebbing, exhibited the various stages in the metamorphosis of a species of *Olania prox. crameri* which defoliates *Casuarina* (*Casuarina equisetifolia*) trees in the Madras Presidency, and made a few remarks upon its life-history. The insect, of which specimens of the various stages and diagrams were shown, belongs to the family *Psychidæ*, commonly called the bag-worms because of the habit the larvæ have of preparing for themselves early in life small cases of bits of stick, leaves, etc., in which they live and pupate. In the present instance the case is made of the small green branches of the tree arranged in a cylindrical manner. The green soon fades, and the case then assumes the dirty grey colour of pieces of stick. The caterpillar feeds upon the needle-like leaves of the tree, and its protective case doubtless helps to protect it against birds which, owing to the very thin foliage of the *Casuarina*, would quickly see it feeding upon the tree had it not some form

of protection. The grub takes alarm at the slightest motion and immediately withdraws itself into its case. It is a heavy feeder. It pupates within the case, closing down the bag opening at the exterior end after fixing the case to a branch, and then turning round inside the case so as to hang head downwards. The moth escapes at the lower end of the case. Only the male leaves the case; the female is wingless and consists of an elongated yellow sac with no legs or mouth parts. She is fertilised by the ♂ within the case itself, and this is the reason for the great extension of the abdominal tip in the male moth. The female lays her eggs in the case. About 9 days are spent in the pupal stage by the July generation of the insect.

The eggs laid by the July-August moths hatch out within a few days of being laid, the young larvæ at once leaving the case and scattering over the young branches of the tree. These are those of the second generation of the year.

In the discussion that followed Mr. Rogers said that he had noticed some faggot worms on the Casuarinas in Port Blair (the Andamans), and suggested that they might be the larvæ of the same species as Mr. Stebbing had obtained in Waltair and Ganjam (Madras).

Mr. Rogers then drew attention to the occurrence of young Casuarina trees on the North and West Coast of the Little Andaman and also their occurrence in Car Nicobar (West Coast) and Great Nicobar also on the West Coast, and suggested that as the genus was so far as he knew essentially an Australian one, that the seed might have been water-borne and have come across from Madras. The seed of the Casuarina ripens in Madras in May, and the South-West monsoon commences early in June, which would seem to point the possibility of the introduction of the Casuarina into the Nicobars and Andamans in this way. It is true the Casuarinas have been planted at Port Blair (Andamans) and Nancowry (Central Nicobars) on the hills near the harbour, but few young seedlings have resulted naturally from these trees, the young trees referred to above being confined to the sea-shore.

Dr. A. Caddy stated that he knew Australia and that the genus, with the exception of *Casuarina equisetifolia*, was confined to the Australian Continent, but that the species named had been reported from Madagascar.

Mr. Bathgate then asked how the moth could have got to the Andamans from Madras. Mr. Stebbing pointed out that there was no proof of the identity of the species, as no moths had been reared by Mr. Rogers in the Andamans, and it was therefore impossible to say that the larvæ noticed as occurring in that locality were identical with those collected in the Casuarina plantations of Madras.

The following papers were read :—

1. *Chronology of the Eastern Ganga Kings of Orissa.*—By **MONMOHAN CHAKRAVARTI, M.A., B.L., M.R.A.S., Deputy Magistrate.**

(Abstract.)

The chronology of the Eastern Ganga kings is in a confused state. The object of this article is to clear this confusion as far as possible with the help of inscripational and other records.

The fourteen Eastern Ganga kings from Cōḍaganga to Nṛsimha Dēva IV have been taken in hand one by one, all the date references noted in a tabular form, the first and last year deduced, the relationship and titles noted, and then all available informations likely to throw light on the chronology have been gathered and discussed. Eighty-one date-extracts of inscriptions have been quoted in the tables, most of them published in full for the first time, besides references to other inscriptions in the accounts given below each table.

The following approximate times of the Orissan Ganga kings have been arrived at :—

Cōḍaganga	...	...	Çaka 998-1069.
Kāmārṇava VII.	...	...	Ç. 1069-1078.
Rāghava	...	...	Ç. 1078-1092.
Rājarāja II.	...	...	Ç. 1092-1112.
Aniyaṅka	<i>alias</i>	Ananga-	
bhima II.	...	...	Ç. 1112-1120.
Rājarāja III.	...	...	Ç. 1120-1133.
Anaṅgabhima III.	...	...	Ç. 1133-1160.
Nṛsimha Dēva I.	...	...	Ç. 1160-1186.
Bhānu Dēva I.	...	...	Ç. 1186-1200/1.
Nṛsimha Dēva II.	...	...	Ç. 1200/1-1227/8.
Bhānu Dēva II.	...	...	Ç. 1227/8-1249/50.
Nṛsimha Dēva III.	...	...	Ç. 1249/50-1274/5.
Bhānu Dēva III.	...	...	Ç. 1274/5-1300/1.
Nṛsimha Dēva IV.	...	...	Ç. 1300/1-reigning in Ç. 1324 and probably in Ç. 1346.
Dark Period	...	...	Ç. 1346(?) -1356/7.

The article ends with a genealogical table of the entire Ganga family from Virasimha, the reputed founder, to Nṛsimha Dēva IV., with their respective years of reign.

2. *Himalayan Summer Storms and their influence on Monsoon Rain-fall in Northern India.*—By **C. LITTLE, M.A.**

3. *A List of Tibetan Books brought from Lhasa by the Japanese monk, Mr. Ekai Kuwa Gochi.*—By **E. H. WALSH, I.C.S.**

4. *On the life history of a species of Arbela, new to the Indian Museum Collections, which is proving a destructive pest in Casuarina plantations in Madras.*—By E. P. STEBBING.

(Abstract.)

How little is really known about our insect foes in India is becoming increasingly evident day by day. An insect suddenly swarms over an area in numbers owing to some particularly favourable conditions in its surroundings, it commits serious depredations in the fields, orchards, or-forests of the tract it is invading and specimens are sent for identification to specialists. The odds are greatly in favour of its being unknown to science. Instances of this state of affairs are numerous, and it may be said that, leaving out of account the butterflies and one or two other groups which have received attention, it is easier to pick up a new species than to collect one that is known. The moth known as *Arbela tetraonis* Moore, about whose life-history I wish to put on record a few notes, furnishes an illustration of the aptness of the above remarks, since although new to the Indian Museum Collections and rare in collections generally, its larva has been known for some years as a destructive bark eater in *Casuarina* (*Casuarina equisetifolia*) plantations on the eastern seaboard of Madras. There may, however, be said to be some excuse for its having remained so long undescribed, since it belongs to a family of moths closely allied to the *Cossidae* which have been little studied and the life-histories of whose members are little known, the larvæ often living in the interior of the woody portions of trees. The moths are rarely seen; in colouration they often greatly resemble the surfaces upon which they rest, and being poor fliers they do not move about much and, owing to the method of living of the larvæ, they are difficult to breed out. The pupal stage of the English Goat Moth is known and has been described, but very little is known about the pupæ of other members of the *Cossid* family, and practically nothing is on record about the Indian *Arbelidæ*. The description of the pupal stage of this insect given in the paper is therefore of some interest and importance.

After noting on the members of the families represented in the Indian Museum, including an unnamed specimen, which is labelled 'de Nicéville, Calcutta, 1891,' and which is not unlike the insect here dealt with, the paper gives a description of the larva, pupa, and moth*; and then alludes to the portions of the life-history at present known and describes the method of feeding of the larva. This is important. The

* This insect has since been very kindly identified for me by Mr. G. C. Dudgeon as *Arbela tetraonis* Moore. E.P.S., 2nd November, 1903.

caterpillar feeds entirely upon the bark, building for itself covered ways under which it takes shelter. These galleries, which resemble glorified termite galleries, are composed entirely of the excreta bound together with fine silk. These covered ways are very conspicuous upon the bark of the tree, being from $\frac{1}{3}$ rd to $\frac{1}{2}$ " in breadth externally, and from 9" to as much as 18" in length, and reddish brown in colour. An infested tree can always be told by the presence of these galleries which doubtless serve to protect the caterpillar from the attacks of birds and other predaceous foes. The bark is eaten away either in thin irregular-shaped patches in the neighbourhood of the galleries or gnawed down to the wood beneath the covered ways. These latter run up or down the tree or may nearly or quite encircle it. When the insect is plentiful the trees are killed out by it. On becoming full fed the larva leaves the bark and bores right into the wood until it reaches the centre of the tree where it pupates. On maturing, the pupa by means of rows of spines with which it is encircled, wriggles and pulls itself along the gallery in the wood until it reaches the outside; it then pushes through the covered way till about $\frac{1}{3}$ rd of its length protrudes. The anterior end then splits down and the moth escapes. Moths emerge between March and July.

The insect appears to be fairly common in Chatrapur (Ganjam), Godaveri, Cuddalore, Nellore (S. Arcot), and in North Arcot. In these places valuable Government Casuarina plantations exist, formed either with the object of stopping the encroachment of the shifting sand dunes on to the cultivated lands, or on to roads, etc., or to provide wood and fuel for the local population for whom little other wood save that of palm trees exists. It will be seen, therefore, that the attacks of an insect of this nature are of importance since they may ruin the result of many years' work. Unfortunately the insect is not alone but has other insect allies which aid it in the work of destruction.

In a discussion which followed Mr. Pargiter, Vice-President, stated that when stationed in the Sunderbuns some years ago he had seen a larva which appeared to live and feed in a very similar manner to the *Arbela* larva described by Mr. Stebbing.

LIBRARY.

THE following books have been added to the Library during the months of July and August 1903 :—

Abu Othman Amr Ibn Bahr Al-djahiz Basrensis. *Tria Opuscula auctore Abu Othman Amr Ibn Bahr Al-djahiz Basrensi quae edidit G. van Vloten. Lugduni Batavorum, 1903. 8°.*

Presd. by the University of Leyden.

Albemarle, Earl of. *The Albemarle Papers. Being the correspondence of William Anne, Second Earl of Albemarle . . . With an appendix of letters from Andrew Fletcher, Lord Justice-Clerk, to the Duke of Newcastle, 1746-1748. Edited with introduction . . . by C. S. Terry. 2 vols. Aberdeen, 1902. 4°.*

Aberdeen University Studies, No. 7.

Anderson (Peter John) *Rectorial Addresses delivered in the Universities of Aberdeen, 1835-1900. Aberdeen, 1902. 4°.*

Aberdeen University Studies, No. 6.

Presd. by the Aberdeen University.

Appaya Dikshita. *Kuvalayānanda Kārikās or the Memorial verses of Appaya Dikshita's Kuvalayānanda. Edited and explained with an English tika commentary and translation . . . by P. R. Subrahmanya Sarmā. Calcutta, 1903. 8°.*

Presd. by the Editor.

Bhārata-Yuddha. *Oudjavaansch—Heldendicht uitgegeven door Dr. J. G. H. Gunning. [Text] 's-Gravenhage, 1903. 4°.*

Presd. by the Koninklijk Instituut voor de Taal-, Land-en Volkenkunde van Nederlandsch Indië.

British Museum. *Catalogue of the Sanskrit Manuscripts in the British Museum. By C. Bendall. London, 1902. 4°.*

Presd. by the Trustees of the British Museum.

Castanhoso (Miguel de) *The Portuguese Expedition to Abyssinia in 1541-1543 . . . With some contemporary letters, the short account of Bermudez, and certain extracts from Correa. Translated and edited by R. S. Whiteway. [With a bibliography of Abyssinia.] London, 1902. 8°.*

Hakluyt Society's Publication, 2nd Series, No 10.

Presd. by the Government of India, Home Department.

- Garrett (A.)** Notes on the Caves of Udayagiri and Khandgiri. [Calcutta, 1902.] Fol.
Presd. by the Government of Bengal.
- Ghulam Husain Khān, Sayid.** A Translation of the S̄ir Mutaqherin : or View of modern times, being an history of India from the year 1118 to the year 1194 . . . of the Hedjrah ; containing the reigns of the seven last Emperors of Hindustan, and . . . an account of the English Wars in Bengal . . . down to the year 1783, etc. [Translated by — Raymond, afterwards called Haji Mustafā.] 4 vols. Calcutta, [1902.] 8°.
- Hoffmann (Rev. J.)** Mundari Grammar. Calcutta, 1903. 8°.
Presd. by the Government of Bengal.
- Jackson (Lieut. R. P.)** Historical Records of the XIII Madras Infantry. [London,] 1898. 8°.
Presd. by the XIII Madras Infantry.
- Muralidhur Roy.** Sree Krishna, etc. Calcutta, 1901. 8°.
Presd. by the Author.
- Newman (W.) & Co.** Newman's Guide to Darjeeling and its surroundings, . . . With a chapter on Tibet and the Tibetans. Illustrated. Calcutta, 1900. 8°.
- Polo (Marco.)** The Book of Ser Marco Polo . . . translated and edited . . . by Col. Henry Yule . . . Third edition, revised throughout . . . by Henri Cordier, etc. 2 vols. London, 1903. 8°.
- Pratt (H. S.)** Monograph on Ivory Carving in Burma. (With a plate.] Rangoon, 1901. 8°.
- Rājasekhara.** Rāja-Çekhara's Karpūra-maūjari. A drama . . . edited in the original Prākṛit, with a glossarial index, and an essay on the life and writings of the poet by S. Konow . . . Translated into English with notes by C. R. Lanman. Cambridge, Mass. 1901. 8°.
Harvard Oriental Series, vol. IV.
Presd. by the Harvard University.
- Rammohun Roy, Raja.** The English Works of Raja Rammohun Roy. Edited by Jogendra Chunder Ghose. 3 vols. Calcutta, 1901. 8°.
- Ranade (M. G.)** Rise of the Maratha Power. Bombay, 1900. 8°.
- Stebbing (E. P.)** A note on the Sandal wood boring insects of Madras. Calcutta, 1903. 8°.

Stebbing (E. P.) *Insect pests of the Sugarcane in India.* [Calcutta, 1903.] 8°.

Extract from Indian Museum Notes, vol. V, No. 3.

Presd. by the Author.

Yule (Col. Henry) and Burnell (A. C.) *Hobson-Jobson: a glossary of Colloquial Anglo-Indian words and phrases . . .* New edition, edited by W. Crooke. *London, 1903.* 8°.

Zoological Society of London. *Catalogue of the Library of the Zoological Society of London.* Fifth edition. *London, 1902.* 8°.

Presd. by the Zoological Society of London.



201

PROCEEDINGS
OF THE
ASIATIC SOCIETY OF BENGAL.
FOR NOVEMBER, 1903.

The Monthly General Meeting of the Society was held on Wednesday, the 4th November, 1903, at 9 P.M.

THE HON. MR. JUSTICE F. E. PARGITER, B.A., I.C.S., President, in the chair.

The following members were present :—

Mr. J. Bathgate, Dr. T. Bloch, Mr. I. H. Burkill, Rev. E. Francotte, S.J., Mr. T. H. Holland, Dr. W. C. Hossack, Mr. C. Little, Mr. J. Macfarlane, Dr. M. M. Masoom, Mr. C. W. McMinn, Mr. C. Michie, Mr. L. Morshead, Pandit Yogesa Chandra Sastree, Mr. E. P. Stebbing, Pandit Satis Chandra Vidyabhusana, Mr. E. Vredenburg, Mr. D. R. Wallace, Mr. E. H. Walsh, Major J. H. Tull Walsh, I.M.S., and Dr. C. R. Wilson.

Visitors :—Mr. J. A. Black and Mr V. H. Jackson.

The minutes of the last meeting were read and confirmed.

Eighty-one presentations were announced.

Mr. J. Hope Simpson, Nawab M. M. Hosein Khan, The Right Rev. Dr. Reginald Stephen Copleston, Mr. J. C. Faunthorpe, Professor C. Ito, Dr. A. S. Allan, and Mr. T. D. Edelston, were elected Ordinary Members during the recess in accordance with Rule 7.

It was announced that Dr. F. Noetling, Mr. E. S. Wood, and Mr. A. F. M. Abdur Rahman had expressed a wish to withdraw from the Society.

The General Secretary reported the death of Mr. W. B. Colville, an Ordinary Member of the Society.

The President announced :—

1. That the Council had appointed Mr. E. H. Walsh, I.C.S., Anthropological Secretary of the Society in the place of Mr. E. A. Gait, resigned.

2. That during the absence of the Hon. Dr. Asutosh Mukhopadhyaya, Mr. J. Macfarlane had been carrying on the duties of Treasurer, and that Dr. C. R. Wilson, having returned from leave, had taken over charge of the office of Treasurer from Mr. Macfarlane.

3. That Mr. E. P. Stebbing had been appointed to serve on the Library and Library Catalogue Committees, and Mr. I. H. Burkill on the Library Committee of the Society during the present year.

4. That the Council had appointed Pandit Asutosh Tarkatirtha as the Resident Pandit attached to the Search for Sanskrit Manuscripts, in the place of Pandit Hari Kishore Goswami, resigned.

5. That the Council had decided that the Members of the Bombay, Madras, Ceylon, and Singapore Branches of the Royal Asiatic Society, when in Calcutta, should have the right of attending the Society's General Meetings.

6. That the Council had decided that the Secretaries of the various branches should be responsible for recording the discussions on papers, and they should decide whether the discussion, or what part of it, should be printed.

7. That in connection with the Scientific Lectures delivered in the Society's Hall, the Council had resolved that they could not undertake the business any further.

8. That the Council had further resolved that the system of translation adopted by the Royal Asiatic Society should be also adopted by the Asiatic Society of Bengal.

The General Secretary reported for confirmation by the General Meeting that the Hon. Mr. Justice F. E. Pargiter, B.A., I.C.S., had been elected President, *vice* the Hon. Mr. C. W. Bolton, C.S.I., I.C.S., resigned.

The General Secretary reported the presentation of 2 gold, 6 silver, and 2 copper coins from the Honorary Secretary, Bombay Branch, Royal Asiatic Society, found in the various districts in the Bombay Presidency.

Mr. E. H. Walsh exhibited a collection of stone implements found in the Darjeeling district.

The Natural History Secretary, Mr. Stebbing, exhibited specimens of the ♂ and ♀ moths of *Duomitus leuconotus*, Walker, a species of

the family *Cossidæ* which is to be found in Calcutta. Also coloured drawings of the larva, pupa, and moth, and a piece of the stem of *Cassia nodosa*, Ham., showing on the inside the tunnels made in the wood by the larva and on the outside empty pupal cases, from which the moths had escaped, protruding from holes in the bark.

Mr. Stebbing pointed out that the moths exhibited could be easily distinguished from a closely related species *D. strix* by the fact that the latter has a black thorax instead of the snowy white one present in the moths exhibited. The curious point about the moths exhibited was to be found in the relative size of the ♂ and ♀. Hampson in the Fauna gives the spread of wings of the ♀ moth as considerably in excess of that of the male, his measurements being ♂ 98-128, ♀ 180 millims: in the specimens bred out in Calcutta, none of the 32 moths reached these sizes, whilst the smallest ♂ measured had a wing expanse of but 70 millim, that of the smallest ♀ being 77 millim. It is believed that the larva depicted in the coloured drawings is shown to-night for the first time, as no previous record of its ever having been taken or described was discoverable. It will be noted that its colouring is vivid, which is often the case with wood boring moth larvæ, but that it is practically hairless. The larva is only about half-grown and is shown enlarged in the drawing. The pupa, also depicted here for the first time, is also rather remarkably coloured for a moth pupa. The drawing also shows a section through a branch in which is depicted the tunnels made by the larva and the bent position of the pupa at the time the moth escapes from it.

The section of the stem shows the large tunnels made in the wood of the tree by the caterpillar whilst feeding in the trunk, and also numerous empty pupa cases protruding from the bark.

It will be unnecessary to comment upon them further at present since they are fully described and explained in a paper to be read later on at the present meeting.

The following papers were read :—

1. *On General Maclagan's paper about the Jesuit Mission to Akbar.*—By H. BEVERIDGE, I.C.S., (retired).

(Abstract.)

This paper is a supplement to an article by General Maclagan on the three Jesuit Missions to Akbar's court. The author first discusses the references to Akbar's religious reforms found in the Akbar-nāmah, and shows that the date therein given for the visit of Rodolfo Aquaviva, the first Portuguese missionary, must be erroneous. He then refers to another passage in the same work, where it is stated that in 1578 A.D.

a Portuguese arrived from Bengal, whose name is spelt *Partāb Bār* or *Tār*. The author proves that this must have been Pietro Tavares, a Portuguese captain who was at Akbar's court in the same year. Tavares, apparently, deserves the credit of having been the first to introduce Portuguese priests to Akbar. He induced him to send for Egidio or Julian Pereira, the vicar of Sātgaon, and then the latter suggested to Akbar that he should send for priests from Goa. It was this which led to Akbar's sending an ambassador to Goa, and to the mission of Rodolfo Aquaviva and his companions. Later on the author gives further reasons in support of General Maclagan's identification of Padre Farmaliūn, another priest mentioned in the Akbar-nāmah, with the Greek Subdeacon Leon Grimon, who probably reached Goa on his way back to his own country from China and from there went to Akbar's court where he appears to have remained for 13 years.

2. *Some new plants from Eastern Asia.*—By D. PRAIN.

(Abstract.)

This paper contains descriptions of one genus and ten species previously undescribed or imperfectly characterised. They are as follows:—**CONVOLVULACEÆ**: *Erycibe albiflora* Hallier f.; *E. Henryi* Prain; *E. Forbesii* Prain; *E. leucozyloides* sp. nov.; *E. sapotacea* Hallier f. and Prain; *E. citriniflora* Griff.; *E. Wallichii* Prain and Hallier f.; *E. magnifica* Prain; *Lettsomia sphaerocephala* Prain. **LABIATÆ**: *Nosema* Prain gen. nov.; *N. capilatum* Prain.

3. *The Tibetan Language and Recent Dictionaries.*—By E. H. WALSH, I.C.S.

(Abstract.)

The paper is divided into two parts. The first part reviews the two Dictionaries that have recently appeared, of the Tibetan Language, namely, the Tibetan-English Dictionary compiled by Rai Sarat Chandra Das Bahadur, and Revised by Rev. G. Sandberg and Rev. A. W. Heyde, and published by the Bengal Government, and the Tibetan-Latin-French Dictionary of the Catholic Missionaries compiled by the Rev. A. Desgodins, published at Hongkong. It reviews the Dictionary of Rai Sarat Chandra Das and compares it with the Dictionary of Father Desgodins and compares them both with the previous Dictionary of Jäschke with regard to the new matter contained by each.

These two Dictionaries have been compiled independently, and from materials collected from independent sources. That of Father Desgodins appeared shortly before that of Rai Sarat Chandra Das, and it would

have been useful if an appendix shewing such words as are found in that Dictionary which do not appear in Rai Sarat Chandra Das's had been added.

In point of new matter Rai Sarat Chandra Das's Dictionary contains much more than Father Desgodins.' The chief difference between them is that Rai Sarat Chandra Das's is primarily a Dictionary of the Literary Language and contains a vast amount of research authorities, and examples from Tibetan writers. It also contains a number of new words of the current colloquial language but unfortunately no distinguishing mark has been made to shew which these are. A feature of the Dictionary is also the Sanskrit synonyms which have been compiled by Pandit Satis Chandra Acharjya. In the case of Desgodins' Dictionary there are also a number of new words, and these are mainly colloquial words, both of the Eastern dialects and of the Central language and Southern dialects. The collection of materials for this Dictionary was commenced by M. Renon, the founder of the French Chinese-Tibetan Mission in 1852, and the missionaries have been collecting and collating material ever since. This accounts for the number of new words probably those in use in the Eastern dialects which the Dictionary contains.

It is a pity that these new words could not have been shewn as an appendix in Rai Sarat Chandra Das's Dictionary. The paper gives a brief review of the history of the Tibetan Literary Language, and points out that the Literary language differs so entirely from the spoken language that it is practically unintelligible to the modern Tibetan, more so than the English of Chaucer would be to the modern Londoner, and that consequently what is now required is a Standard Dictionary of Current and Colloquial Tibetan.

Part II considers the lines on which such a Dictionary should be compiled.

Pandit Satis Chandra Acharjya said that the suggestion that a list shewing the words to be found in Desgodins that do not occur in Rai Sarat Chandra Das's Dictionary, was a good one, and that such a list could still be made and published in connection with the Appendix to the Dictionary of Buddhist terms which he was engaged in preparing.

Rev. Fr. E. Francotte said that it had been Father Desgodins intention to have published his Dictionary in English as well as Latin and French, as making it more generally useful, but this had not been carried out.

4. *An Instance of a Prosthetic g in an Indo-Aryan Language.*—By G. A. GRIERSON, C.I.E., PH.D., D. Litt., I.C.S.

Certain of the Romance languages exhibit a tendency to prefix the letter *g* to words originally beginning with *u* or *v*. Thus,—

Latin, *vado* ; Italian, *guado* ; Provençal, *gud* ; French, *gud*.

Latin, *vagina* ; Italian, *guaina* ; French, *gaine*.

The same peculiarity occurs in Welsh, as in *gweddw* ; Latin, *vidua* ; Sanskrit, *vidhava* ; a widow.

In Eranian languages we find the same tendency in Balōci. Thus, Avesta, *vāta* ; Balōci, *gwāt*, wind : Avesta, *visaiti-* ; Balōci *gīst*, twenty.

(N.B.—Balōci also prefixes *g* to words beginning with vowels other than *u*).

The same prosthesis explains a form of the pronoun of the third person occurring in the Braj Bhākhā dialect of Western Hindī, which has not hitherto been noted by grammarians. It is prevalent in the district of Aligarh, and the east of the district of Agra, and is *gu* or *gwa*, he, that ; oblique singular, *gwā* ; nominative plural, *gwā* ; obl. plur., *guni* or *gunan*. Connected with it is *gwā* or *ngwā*, there. Examples of its use are,—

gunan jē kahī
by-them this was-said, i.e., they said so.

gunan kahā parihaī.
to-them what will-fall, i.e., what do they care ?

That the *g* in these words is similar to the prosthetic *g* of the Romance languages, Welsh, and Balōci, is shown by the fact that it is prefixed, in the same locality, to other words beginning with *u*. Thus, *gunnis*, or *unnis*, nineteen ; *guntis*, for *untis*, twenty-nine ; *guntālis*, for *untālis*, thirty-nine ; *gurancās*, for *uncās*, forty-nine ; *gunhattar*, for *unhattar*, sixty-nine, and so on.¹

To the south of the area in which Braj Bhākhā is spoken lies the Dāng, or broken country of Kerauli and the east of the Jaipur State. Here we find the prosthetic *g* weakened to *h*, the word for 'he' being *wha* (i.e., *hwa*) or *ū*.

It will have been observed that the Aligarh *gwa* has no final *h*, as there is in the Standard Western Hindī *wah*. If we assume that the Dāngī *hwa* is a weakened form of the Aligarh *gwa*, we find an explanation for the final *h* of *wah*, which would thus be only an instance of metathesis, *wah* and *wha* being the same word. The change was no doubt helped by the fact that the Standard Western Hindī word for 'this,' viz., *vah*, does terminate in an original *h*, being derived from the Apabhraṃṣa *śhu*.

5. *On the Life-History and habits of the Moth Duomitus leuconotus*, Walker, in Calcutta.—By E. P. STEBBING.

(Abstract.)

At the last meeting of this Society I read a paper on the life-history of a species of *Arbela* destructive to *Casuarina* plantations in

¹ Mr. Dames informs me that he has heard Mārṅwārī treasurers also using these forms when counting. I have not found them in any specimens which I have received from Rajputana.

Madras, and exhibited to the Members present at the meeting species of that insect. I pointed out that the habits of the Indian members of the family *Arbelidæ*, and its large and closely related family *Cossidæ* were almost unknown, neither the larvæ, which are wood feeders and live in trees, nor pupæ of the greater number of described species being known. Since that meeting I have been able to carry out a series of observations on the life-history of a member of the *Cossidæ*, a family known to many in England owing to the abundance of the common red Goat moth caterpillar which riddles elms and willows throughout the country. In India the life-histories of two representatives of the family are known owing to their economic importance. These are *Duomitus nigar* the 'Black borer,' and *Zeuzera coffeæ* the Red 'borer' of the Planters in Southern India. Both are pests in coffee plantations. The moth whose life-history this paper deals with bears the name of *Duomitus leuconotus*, Wlk., and specimens of the various stages in its life-history have been already exhibited to Members.

The paper points out that the measurements of the Calcutta specimens of the moth taken this year differ from those given in Hampson's *Moths in the Fauna of British India*, males in the case of the Calcutta specimens, being as much as 28 millims less than the sizes quoted by Hampson, whilst in the females the disparity is very much greater, the smallest female measured having a wing expanse of 103 millims less. Technical descriptions are given of the larva and pupa which, it is believed, have never before been figured or described.

The moths appear on the wing in the latter half of September, and are to be found during the remainder of that month and up to about the third week in October. They are extremely sluggish during the daytime but are exceptionally powerful fliers at night. The ♂ lives but a few days and dies after pairing with the ♀. The latter lays eggs shortly after pairing and dies as soon as she has finished ovipositing. The eggs are laid on the bark. The larvæ on hatching out bore into the tree and spend this stage of their existence tunnelling in and feeding on the wood. It is probable that nearly two years, if not more, are passed in this stage. When full fed the larva carries its tunnel to the outside, eating through the bark and ejecting the wood refuse so that the latter part of its tunnel is quite clean, the rest being blocked by its excrement and wood particles. Having thus provided for the escape of the pupa it backs down its tunnel for about 3 inches and pupates. A short time only is spent in this stage. When the moth is ready to emerge, the pupa wriggles up the tunnel to the outside until it projects half of its length beyond the bark. The pupal skin then splits down anteriorly and the moth crawls out.

The insect commits serious damage to *Cassia nodosa*, Ham., a tree of this species in the Indian Museum compound having been killed this year by the larvæ, between 30 and 40 moths being obtained from it.

The President asked whether the presence of immature larvæ at the time when the moths were maturing and issuing indicated that the larvæ spent more than one year in that stage of their existence. Mr. Stebbing replied that although this would not be so in the case of an insect which passed through several generations in the year, which generations might overlap so that at any one time eggs, larvæ pupæ, and mature insects would be found together; yet in the case of an insect of which adults only appeared once in the year the presence of half-grown larvæ would indicate the probability of more than a year being passed in that stage.

The Rev. Fr. Francotte asked whether the larvæ depicted in the coloured illustrations were natural size or enlarged. He pointed out that the larvæ of the Goat moth which riddled willow trees in England were 4 inches in length. Mr. Stebbing explained that the larvæ illustrated were half-grown ones enlarged. That it was probable that they exceeded the Goat moth larva in size when fullgrown. In reply to a query from Rev. Fr. Francotte as to whether this was the largest Indian Cossid known, Mr. Stebbing replied that there was one other, a closely allied species *Duomitus strix*, Cram. which was usually larger.

6. *Some notes concerning the people of Mungeli Tehsil, Bilaspur District.—*
By The Rev. E. M. GORDON.

(Abstract.)

These notes are a continuation of a series of similar notes by the same author which were published in the Society's Journal, Part III, No. 2, of 1902.

They give a number of interesting examples of the Folklore and Customs of the people of the Mungeli Tehsil, also one of their songs, and a number of stories.

Some of the items of folklore, such as their aversion to spilling or passing salt, and their beliefs about the howling of dogs are interesting on account of their counterpart to current beliefs elsewhere.

Mr. McMinn pointed out that though not so stated in the paper, these beliefs and customs were probably those of particular castes, and must not be taken as generally prevalent throughout the Mungeli Tehsil with which he was well acquainted.

7. *A note on Stone Implements found in the Darjeeling District.*—By E. H. WALSH, I.C.S.

(Abstract.)

The paper describes a collection of stone implements found in the Darjeeling District (which were also exhibited) and points out that they are everywhere believed to be thunderbolts, the weapons of the gods, and to possess various protective and medicinal powers, and expresses the opinion that some of them are modern forgeries, made by the medicine-men, with whom they are generally found, and who find it necessary to have one to use as a charm, or rub it in water for medicine. The axe-heads exhibited also included for comparison, some the Shan States of Upper Burma.

8. *The Tibetan Game of De Sho.*—By E. H. WALSH, I.C.S.

(Abstract.)

The paper describes this game and gives as an example a game as actually played through. The game is played by three players with dice which are thrown in a small wooden bowl on to a round leather cushion, and in the method of play the game bears certain resemblances to backgammon though differing entirely in other respects.

Each player has nine counters called "dogs" and it is his object to collect as many of these as he can to form a pack at one point, as he can then "kill" any smaller pack of his adversaries at any other point, that he can reach by the throw of the dice which puts those dogs so killed out of play and they have then to start the round again from the beginning.

The winner is the one who gets all his "dogs" through first. There is considerable skill in playing the game well.



PROCEEDINGS
OF THE
ASIATIC SOCIETY OF BENGAL.
FOR DECEMBER, 1903.

The Monthly General Meeting of the Society was held on Wednesday, the 2nd December, 1903, at 9 P.M.

THE HON'BLE MR. A. PEDLER, C.I.E., F.R.S., in the chair.

The following members were present :—

Dr. A. S. Allan, Mr. J. Bathgate, Mr. I. H. Burkill, Dr. A. Caddy, Mr. F. Doxey, Mr. T. D. Edelston, Revd. E. Francotte, S. J., Mr. T. H. Holland, Mr. D. Hooper, Mr. H. E. Kempthorne, Mr. W. A. Lee, Mr. J. Macfarlane, Dr. M. M. Masoom, Mr. W. H. Miles, Mr. C. W. McMinn, Major D. Prain, I.M.S., Pandit Yogesa Chandra Sastree, Dr. C. Schulten, Pandit Satis Chandra Vidyabhushan, Mr. D. R. Wallace, Dr. C. R. Wilson, Mr. J. Wyness.

Visitors :—Dr. F. Alfiers, Syed Ameer Ali, Mr. C. Anninos, Miss Devereux, Mr. W. Dods, Mr. and Mrs. C. A. Giannacopolo, Mr. and Mrs. N. Giannacopolo, Mr. V. H. Jackson, Mrs. Kempthorne, Mr. H. D. Lindquist, Mr. J. W. Meares, Mr. H. K. Scott, Mr. E. D. Zalichi.

The minutes of the last meeting were read and confirmed.

Forty-four presentations were announced.

It was announced that Mr. A. B. Miller had expressed a wish to withdraw from the Society.

The Chairman announced :—

1. That Dr. E. D. Ross had kindly undertaken to carry on the duties of the Philological Secretary of the Society during the absence of Dr. T. Bloch, on tour.

2. That Captain L. Rogers, I. M. S., had been appointed Natural History Secretary of the Society, *vice* Mr. E. P. Stebbing, resigned.
3. That Dr. E. D. Ross had been appointed Anthropological Secretary of the Society, *vice* Mr. E. H. C. Walsh, resigned.

Mr. T. H. Holland exhibited a meteorite which fell with the meteor seen in Eastern Bengal on October 22nd.

The stone weighs 622 grammes and is covered with a thin black crust formed by the fusion of the rock during its rapid flight through the air. Several stones were known to have fallen with this meteor, and the complete investment with fused crust of the one exhibited shows that fusion of the surface occurred after the break-up of the meteorite. Besides the complete proof that the meteor resulted in an actual fall of stones, special interest attaches to this occurrence on account of the observations made from so many points of view, permitting Mr. Little to calculate its actual path and speed.

Mr. T. H. Holland also exhibited some crushing mills used by ancient gold miners in Chota Nagpur.

Grooved stones and ground pebbles occur by the thousand in the jungles of Singhbhum district, where apparently they were used by a past and unknown generation of gold miners. The rounded pebbles and the larger grooved stones appear to have performed the functions respectively of pestle and mortar, although nothing of the kind is now known in use, and no tradition is known locally of the work done by the people of the past. Judging by the great numbers of these stones in Singhbhum, prospecting operations must have been carried on on a large scale; but, like the miners who attempted to boom this area 12 years ago, the ancient workers did not apparently obtain sufficient inducement to develop deep workings.

Mr. E. Vredenburg, of the Geological Survey, exhibited specimens of sodalite from Kishengarh, having an unexplained property of changing its colour.

The sodalite was obtained in Kishengarh, Rajputana, with the comparatively rare group of rocks known as *eleolite-syenites*. Besides the deep-blue and usual variety of sodalite, one form when freshly broken has a carmine colour. The carmine colour, for some unexplained reason, disappears after a few seconds' exposure to direct sunlight, or after a few minutes in a bright electric light, recovering its colour again when kept in darkness for about a fortnight. Whilst the fading of coloured minerals is rare, the recovery of colour in this way is without

parallel amongst minerals; and, in view of the fact that the association is just that of the rarer earths, it is not unnatural to suspect the existence of some phenomenon akin to the forms of fluorescence and radio-activity which have recently attracted so much attention.

The General Secretary exhibited a spiral ring dug up at Alladand in Swat by a burial party, received from Major S. H. Godfrey, I.A., Political Agent, Dir, Swat, and Chitral.

The chief interest of this ring appears to lie in the story current among the people that the idol worshippers who were displaced by the Muhammadans wore similar rings, and the legend that the Kafirs of Kafiristan are the direct descendants of the former inhabitants of Swat.

The women of Kafiristan to this day wear iron coil ornaments on their headdress of the shape of this gold plated spiral ring. It has been somewhat damaged by incisions doubtless made at the time it was exhumed to ascertain whether the gold was solid.

The following papers were read:—

1. *On 'Isā Khān, the ruler of Bhāti in the time of Akbar.*—By H. BEVERIDGE, I.C.S. (retired).

(ABSTRACT.)

The history of 'Isā Khān has already been noticed by Dr. Wise in his valuable account of the Bārā Bhūyas of Eastern Bengal published in 1874. The object of Mr. Beveridge's present paper is to add some particulars about 'Isā Khān taken from the third volume of the Akbar-nāma a source not directly consulted by Dr. Wise. The Akbar-nāma it may be observed appears to have been written after the Āin, for in the Āin, 'Isā is incorrectly called 'Isā Afghan, whereas the Akbar-nāma, agreeing with the family tradition as reported by Dr. Wise, correctly states that 'Isā's father was a Rājput of Bāiswāra in Oudh whose name was Kālī Dās Gajdānī. In the reign of Salim Shāh, the son of Sher Shāh, Kālī Dās who had settled in the fluviatile region of Bengal, rebelled, and was eventually by stratagem made prisoner and put to death. According to the family tradition Kālī Dās became a Muhammadan before his death and received the title of Sulaimān Khān. But this cannot have been the case as his two sons 'Isā and Ishmael were sold as slaves and carried off into Central Asia. On the death of Salim Shāh, in 1554, their uncle, after much searching, found them and brought them back to Bengal. 'Isā by his ability and prudence rose to be the chief of the *bārā bhūyas* or twelve zemindars of Bengal. Ruler of Bhāti, he professed submission to the higher rulers of Ben-

gal, Sulaiman Kararāni and Dāūd; but he had the good sense to keep aloof from them. Bhāti seems roughly to correspond with the districts of Dacca and Maimansingh. Khizrpur on the Ganges is described as the thoroughfare to and from Bhāti. Sonārgāon and Agara Sindur on the old Brahma Putra were important cities. 'Isā's residence is said to have been at the populous city of Katrābuh which may be identified with Katibāri near Sābhār in the Mānikganj sub-division where there is still a tappa called Kāthorābo. Abul Faḡl describes in detail the campaigns of the imperial general Shāhbāz Khān against 'Isā in 1584 and 1585. There are also some nine other references to 'Isā in the third volume of the Akbar-nāma, and we are told more than once of his making submission and sending presents. But he was never really subdued. His swamps and creeks enabled him to preserve his independence as effectually as the Aravalli Hills protected Rānā Prātāp of Udaipur. 'Isā's death took place in 1599-1600 in the 44th year of Akbar's reign. His son Dāūd, according to Abul Faḡl, gave Mān Singh some trouble. Ralph Fitch who was at Sonargaon about 1586 mentions 'Isā Khān as 'the chief king of all these countries,' and 'a great friend to Christians.' Mr. Gait in his paper on the Koch kings of Kāmṛp, published by the Society in 1893, tells us that Rajah Nar Narayan of Kuch Bihar conferred with the Emperor Akbar to attack 'the Gaur Pāsha' who was defeated and had to fly to the Faringhis. Mr. Beveridge suggests that 'the Gaur Pāsha' of the Kuch Bihar records is 'Isā Khān.

2. *Noviciæ Indiæ XXI.—An undescribed Indian Musa*—By D. PRAIN.

(ABSTRACT.)

Three years ago, a native collector in the service of the Royal Botanic Garden, Shibpur, sent to Calcutta the rootstocks of a *Musa* from the Jaboca Naga country. The plant has thriven well and has recently flowered. It proves to be a new species, belonging to the section *Eumusa*, and is now described under the name *Musa nagensium*.

3. *The Later Mughals (1707–1803)*.—By WILLIAM IRVINE, I.C.S., (retired).

(ABSTRACT.)

Mr. Irvine's paper is a continuation of his previous contributions on the subject of the Later Mughals which have been published in the Society's *Journal*, Part I, in 1896, 1898, and 1903. It completes the story of the reign of the worthless Farrukhsiyar and shows how his various ill-conceived ill-executed attempts to free himself from the two

Sayyads recoiled on his own head and led to his deposition and death. The narrative extends to twenty-three carefully written sections.

Undeterred by the failure of his plot to get Ḥusain 'Ali destroyed by Dāūd Khān in 1715, a piece of treachery which the two Sayyad brothers never forgot or forgave, Farrukhsiyar continued to intrigue against them with every likely person he could think of. But as he was at once suspicious and faithless he failed to rally anyone of any importance to his side. It was probably by the emperor's orders that his favourite Mir Jumlah ventured to return to Delhi in 1716, but, when the *wazir* Quṭbu-l-mulk remonstrated, the emperor took fright and sent peremptory orders to Mir Jumlah to withdraw to Lāhor. Mir Jumlah's troops were then secretly encouraged to mutiny in the hope that they might attack Quṭbu-l-mulk, but as this plot too failed to take effect, the emperor professed to be very angry with Mir Jumlah, deprived him of all his titles and offices, and forced him to leave for Lāhor at once.

It occurred to Farrukhsiyar that it had been a mistake to remove all the old officials, who would have furnished a useful counterpoise to the overwhelming influence of the Sayyads. In this view he reappointed 'Ināyatullah Khān on his return from Makka *diwān* of the *Khālegah* and the *tan* and also governor of Kashmir. 'Inayatullah's attempts to reform the Treasury only annoyed the *wazir* who was lazy and slack, and the corrupt Hindu officials who were enriching themselves with his connivance. The new *diwān* made himself particularly unpopular by reimposing the *jastyah* and by reviving the rules of 'Ālamgir. In the same way other officials of the old school were appointed to various positions of trust, but it was soon clear to the emperor that they would be no sufficient counterpoise to the power of the *wazir*.

Farrukhsiyar now changed his plans and made what was perhaps the greatest mistake of his life. He chose a new favourite Muhammad Murād, Kashmiri, I'tiqād Khān, whom he loaded with honours and clung to as the right man for any desperate undertaking. The sudden elevation of Murād gave offence to friends and foes alike and was one source of strength to the emperor, for Murād was a braggart and a coward and afraid to take any steps against the *wazir*. Under the advice of I'tiqād Khān the emperor had recourse to Sarbuland Khān, who did not consider it worth his while to attack Quṭbu-l-Mulk unless he became *wazir* instead; then to Ajit Singh, who at once went over to the opposite side; and then to Niḡāmu-l-mulk who suggested the recall of his cousin Muḥammad Amin Khān.

At last the patience of the Sayyad brothers gave way. Ḥusain 'Ali

returned to Delhi and the Sayyad adherents took possession of the place. They expected that Farrukhsiyar would now be a mere puppet in their hands. But Farrukhsiyar was obstinate and refused to move according to their directions. There was nothing for it but to depose Farrukhsiyar and bring out one of the imprisoned scions of the house of Taimur and place him on the throne. Accordingly on February 28th, 1719, Rafi'u-d-darajāt, the youngest of the three sons of Rafi'u-sh-shān, was taken just as he was found in his ordinary clothes with a string of pearls round his neck, and was seated straightway by the *vazīr* and Ajit Singh on the jewelled peacock throne in the *diwān-i-'ām*. Farrukhsiyar was seized, blinded and imprisoned in the room over the Tirpoliyā or triple gate within the fortress. After an imprisonment of two months, during which he seems to have been treated with unnecessary harshness, he was put to death on the night of April 27th, 1719.

Mr. Irvine cannot hold it wrong to have removed from power such a worthless thing as Farrukhsiyar. Nor does he think that the Sayyads were specially to blame for blinding him, which was the usage of the day. He condemns the excessive strictness of the confinement and the execution. The most prominent element in Farrukhsiyar's character was weakness. He was strong neither for evil nor for good. He might have shown himself amiable and inoffensive, leaving his powerful ministers to take their own course. He might have got rid of them at the earliest possible moment after his accession, following the example of many of his illustrious predecessors. But Farrukhsiyar was not morally strong enough to do anything decisive. Consequently for seven years the Government was in a condition of unstable equilibrium. In private life he was profuse and liberal, which made him the darling of the lower orders. He loved fine clothes and good horses. He was passionately fond of wrestling, archery, horsemanship, hunting, polo-playing, and other soldierly exercises, and was physically a fine man. Mr. Irvine believes that the date of his birth was the 19th Ramazān, 1094 H. He proclaimed himself emperor at Patna on the 29th Šafar, 1124 H. or March 6th, 1712. The only well-known edifice constructed in his reign was a third arch of marble to the mosque at the Quṭb, added in 1130 H.

4. *Noviciae Indicæ XXII. An undescribed Araliaceous genus from Upper Burma—By D. PRAIN.*

(ABSTRACT.)

Among the plants obtained by a native collector of the Royal Botanic Garden, Calcutta, while working in the Kachin Hills under the kind supervision of Lieutenant Cruddas, S.C., Commandant of the Military

Police Battalion at Myitkyina, one of the most striking is a hitherto uncharacterised Araliacean plant which cannot be referred to any known genus of the order. It is accordingly made the type of a new genus *Woodburnia*, dedicated to the memory of our lamented former President, H.H. Sir John Woodburn, K.C.S.I. The species *W. floribunda* exhibits the character, unusual in the order, of having simple umbels, and has the further unusual feature of remarkably large flowers.



INDEX

TO

PROCEEDINGS, ASIATIC SOCIETY OF BENGAL

FOR 1903.

	<i>Page.</i>		<i>Page.</i>
Abul Aas (Maulavi Syed) ...	63	Bombay Branch of the Royal Asiatic Society	92, 122
Abdul Alim ...	28	Bose (Bai Chuni Lal) ...	28
Abdul Wali (Maulavi) 59,	100	Bourdillon (Hon. Sir J. A.) ...	56
Abdur Rahim ...	115	British Association for the Advancement of Science	64, 116
Abdur Rahman (A.F.M.) ...	121	Burkill (I. H.) 27, 56, 97,	122
Adamson (Lieut.-Col. C. H. E.)	115	Caddy (A.) ...	27
Agencies ...	7	Caddy (A. E.) ...	64
Ahmad (Maulavi) ...	56	Caterpillars, live ...	98
Alladand, spiral ring dug up		Cave, photograph of a ...	28
at ...	123	Ceylon Branch of the Royal Asiatic Society	122
Allan (Dr. A. S.) ...	121	Chakravarti (Monmohan) ...	118
Annual Address ...	15	Chalsa, dagger found near ...	56
„ Meeting ...	1	Chatterji (Rampoda) ...	92
„ Report ...	2	Chota Nagpur, mills used by ancient gold miners in ...	122
Anthropological photographs	64, 116	<i>Olania proax, crameri</i> ...	116
„ Secretary, election of	27	Coin Cabinet ...	13
Bain (Lieut.-Col. D. S. E.)	56	Coins Committee, election of	56
Barclay Memorial Medal ...	15	„ presentation of 28,	64, 92, 122
Bathgate (J.) ...	27, 56	Colville (W. B.) ...	121
Beetles and grubs, Jute rope attacked by ...	98	Congress of Orientalists, Hamburg ...	67
Beveridge (H.) ..	123, 133	Connan (W.) ...	64
Bhattacharyya (Charu Chandra) ...	116	Copleston (Rt. Rev. Dr. R. S.)	121
Bibliotheca Indica ...	15	Council Members, election of	27
Bloch (T.) 27, 55, 56, 91,	131		
Bolton (Hon. Mr. C.W.) 27,	122		

	<i>Page.</i>		<i>Page.</i>
Cowell (Prof. E. B.) ...	51	Hamburg, Congress of Orientalists. ...	67
Dagger found near Chalsa ...	56	Harris (Lt.-Col. G. F. A.) ...	91
Darjiling district, stone implements found in the ...	122	Hendley (Col. T. H.) 27, 63,	64
Das (Bhawan) ...	28	Hill stations, meteorological observations at ...	98
Das (Jamini Mohan) ...	108	Holland (T. H.) 64, 106, 116,	132
De (Hari Nath) ...	97	Honorary Members, death of	51
Death of members 28, 51, 64,	115, 121	Hooper (D.) ... 56, 96,	103
Dey (Nundo Lall) ...	103	Hosein Khan (M. M.) ...	121
Discussion on papers ...	122	Hughes-Buller (R.) ...	29
Doyal (Parmeshwar) ...	75	Indian Museum ...	3
Drake-Brockman (Major H. E.)	28	Indo-Aryan Language, prosthetic g in an ...	125
<i>Duomitus leuconotus</i> , Walker	122	Insects ...	106
Dutt (Girindranath) ...	59	International Catalogue of Scientific Literature ...	7
Economic Entomology ...	76	Irvine (W.) ...	134
Edelston (T. D.) ...	121	Ito (Prof. C.) ...	121
Edwards, (W. N.) 91,	89	Joint Philological Secretary, election of ...	27
Election of members 28, 51,	63, 91, 97, 105, 115,	Journal, Part I, report on ...	11
121		" " II, report on ...	11
Elliott Prize for Scientific Research	15, 105	" " III, report on ...	13
Exchange of Publications ...	8	Jute rope attacked by beetles and grubs ...	98
Faggot worm from Miraj ...	97	Kempthorne (H. E.) 27,	56
Faunthorpe (J. C.) ...	121	King (Sir George) ...	99
Finance ...	3	King (L. W.) ...	91
" and Visiting Committee, election of	55	Kishengarh, sodalite from ...	132
Gage (Capt. A. T.) ...	51	La Touche (T. H. D.) ...	27
Gait (E. A.) ... 27, 55, 56,	122	Lefroy (H. M.) ...	105
Gamble (J. S.) ...	99	Library, additions to the ...	32
Gastrell (General J. E.) ...	28	" Committee, election of	56
Ghosha (Pratap Chandra) ...	56	" open to members on Sundays ...	116
Gochi (Ekai Kawa) ...	118	" report on ...	7
Godfrey (Major S. H.) ...	183	Life Member, death of a ...	28
Gordon, (Rev. E. M.) ...	128	Little (C.) 75, 93, 112,	118
Goswami (Harikishore) ...	122	Macfarlane (J.) 27, 116,	122
Grierson (G. A.) ...	125		
Gurdon (Major P. R. T.) ...	99		
Hahn (Rev. F.) ...	31		

	<i>Page.</i>		<i>Page.</i>
Madras Branch of the Royal Asiatic Society ...	122	Oldham (R. D.) ...	27
Mahomed Gilani (Shaikh) ...	56	O'Malley (L. S. S.) ...	30
Maliah (Kumar Ramessur) ...	27	Papers, discussion on ...	122
Mann (H. H.) ...	56, 89	" read :—30, 31, 56, 59,	
Masoom (Dr. M. M.) ...	115	75, 89, 90, 92, 94,	
Max Müller Memorial Fund	8	96, 99, 100, 101,	
McLeod (Lieut.) ...	28	102, 103, 108, 109,	
McMinn (C. W.) ...	56	111, 112, 113, 118,	
Members, death of 28, 51, 64,		119, 123, 124, 126,	
115, 121	121	128, 129, 133, 134,	136
" election of 28, 51, 63,		Pargiter, (Hon. Mr. Justice	
91, 97, 105, 115,	121	F. E.) 63, 106, 116,	122
" list of ...	2	Pandran, photograph of a	
" of Council, election of	27	cave at	28
" withdrawal of 28, 51,		Peal (H. W.) ...	31
64, 91, 115, 121,	131	Pedler (A.) ...	27
Memorial Fund to Dr. R.		Phillott (Major D. C.) ...	56
Rost.	66	Philological Committee, elec-	
Meteorite ...	132	tion of ...	56
Meteorological Observations		" Secretary, elec-	
at Hill stations ...	93	tion of ...	27
Miller (A. B.) ...	131	Plants, Sundribun ...	107
Mills used by ancient gold		Prain (D.) 89, 107, 124, 134,	136
miners in Chota Nagpur	132	Premises of the Society, pro-	
Miraj, faggot worm from ...	97	posed sale of the ...	8
Mitra (J. C.) ...	51	Presentations 27, 51, 63, 91,	
Monthly General Meetings		97, 105, 115, 121,	131
27, 51, 63, 91, 97, 105, 115,		President, election of ...	27
121, 131	131	Proceedings, report on ...	10
Moore (Rev. H. O.) ...	91	Prosthetic g in an Indo-	
Mukerjee (Panchanan) ...	56	Aryan Language ...	125
Mukhopadhyaya (Hon. Dr.		Publications ...	9
Asutosh) 27, 51, 56, 92,		Rai (Jamiat) 102, 111,	113
116, 122	122	Ranking (Lieut.-Col. G.) ...	28
Mukhopadhyaya (Mahendra		Re-organization of the Socie-	
Nath.	116	ty, proposed ...	8
Natural History Secretary,		Risley (H. H.) 27,	55
election of ...	27	Rogers (C. G.) ...	51
Noetling (F.) ...	121	Rogers (Capt. L.) 27, 55,	132
Obituary ...	51	Ross (E. D.) 27, 56, 91, 106,	
		131, 132	

	<i>Page.</i>		<i>Page.</i>
Ross (Major Ronald) ...	15	Stone Implements found in	
Rost (Dr. R.), Memorial to	66	the Darjeeling district ...	122
Roy (Maharaja Jagadindra	105	Sunder (D.) ...	102, 103
		Sundribun plants ...	107

LIST OF MEMBERS
OF THE
ASIATIC SOCIETY OF BENGAL.
ON THE 31ST DECEMBER, 1902.

LIST OF OFFICERS AND MEMBERS OF COUNCIL
OF THE ASIATIC SOCIETY OF BENGAL
FOR THE YEAR 1902.

President :

The Hon'ble Mr. C. W. Bolton, C.S.I., I.C.S.

Vice-Presidents :

H. H. Risley, Esq., B.A., C.I.E., I.C.S.

Colonel T. H. Hendley, C.I.E., I.M.S.

R. D. Oldham, Esq., A.R.S.M., F.G.S.

Secretary and Treasurer.

Honorary General Secretary : J. Macfarlane, Esq.

Treasurer : Captain A. F. McArdle, I.M.S., succeeded by
Mr. C. R. Wilson, M.A., D. Litt.

Additional Secretaries.

Philological Secretary : T. Bloch, Esq., Ph.D., succeeded
by Dr. E. D. Ross.

Natural History Secretary : F. Finn, Esq., B.A., F.Z.S.

Anthropological Secretary : E. A. Gait, Esq., I.C.S.

Joint Philological Secretary : Mahāmāhopādhyāya Hara-
prasād Shastri, M.A.

Other Members of Council.

Major A. Alcock, M.B., LL.D., F.R.S.

J. D. Nimmo, Esq.

C. L. Griesbach, Esq., F.G.S., C.I.E.

A. Pedler, Esq., F.R.S.

J. Bathgate, Esq.

T. H. D. La Touche, Esq., B.A.

Captain L. Rogers, M.D., B.Sc., I.M.S.

Kumar Ramessur Maliah.

Arnold Caddy, Esq., M.D., F.R.C.S.

LIST OF ORDINARY MEMBERS.

~~~~~

R. = Resident. N.R. = Non-Resident. A. = Absent. N.S. = Non-Subscribing.  
L.M. = Life Member. F.M. = Foreign Member.

~~~~~

N.B.—Members who have changed their residence since the list was drawn up are requested to give intimation of such a change to the Honorary General Secretary, in order that the necessary alteration may be made in the subsequent edition. Errors or omissions in the following list should also be communicated to the Honorary General Secretary.

Members who are about to leave India and do not intend to return are particularly requested to notify to the Honorary General Secretary whether it is their desire to continue Members of the Society; otherwise, in accordance with Rule 40 of the Rules, their names will be removed from the list at the expiration of three years from the time of their leaving India.

Date of Election.		
1901 June 5.	R.	Abdur Rahman, A. F. M., Barrister-at-Law. <i>Calcutta.</i>
1894 Sept. 27.	N.R.	Abdul Wali, Maulvie. <i>Ranchi.</i>
1895 May 1.	N.R.	Abdus Salam, Maulvie, M.A. <i>Cuttack.</i>
1888 Feb. 1.	F.M.	Adamson, Lieut.-Col. Charles Henry Ellison, S.C. <i>Europe.</i>
1901 Aug. 7.	N.R.	Adams, Margaret. Baptist Zenana Mission. <i>Delhi.</i>
1888 April 4.	R.	Ahmud, Shams-ul-ulama Maulvie, Arabic Professor, Presidency College. <i>Calcutta.</i>
1888 Feb. 1.	A.	Alcock, Major Alfred William, M.B., LL.D., C.I.E., F.R.S. <i>Europe.</i>
1885 Mar. 4.	L.M.	Ali Bilgrami, Sayid, B.A., A.R.S.M., F.G.S. <i>Hyderabad.</i>
1899 Jan. 4.	N.R.	Ali Hussain Khan, Nawab. <i>Bopal.</i>
1900 Aug. 1.	R.	Allen, O. G. H., I.C.S. <i>Calcutta.</i>
1874 June 3.	R.	Ameer Ali, The Hon'ble Mr. Justice, M.A., C.I.E., Barrister-at-Law, Judge, High Court. <i>Calcutta.</i>
1893 Aug. 31.	A.	Anderson, Major A. R. S., B.A., M.B., I.M.S. <i>Europe.</i>
1884 Sept. 3.	A.	Anderson, J. A. <i>Europe.</i>
1890 July 2.	N.R.	Arnold, Thomas Walker, B.A., M.R.A.S. <i>Lahore.</i>
1870 Feb. 2.	L.M.	Baden-Powell, Baden Henry, M.A., C.I.E. <i>Europe.</i>
1901 Jan. 2.	R.	Badshah, K. J., B.A., I.C.S. <i>Calcutta.</i>
1898 Nov. 2.	N.R.	Bailey, The Revd. Thomas Grahame, M.A., B.D. <i>Wazirabad.</i>
1891 Mar. 4.	N.R.	Baillie, D. C., I.C.S. <i>Ghazipur.</i>
1898 Aug. 3.	N.R.	Bain, Lieut.-Col. D. S.E., I.M.S. <i>Mercara.</i>
1891 April 1.	F.M.	Baker, Edward Charles Stuart. <i>Europe.</i>
1900 Aug. 29.	R.	Baker, The Hon. Mr. E. N., C.S.I., I.C.S. <i>Calcutta.</i>

Date of Election.		
1889 May 1.	R.	Banerji, The Hon. Mr. Justice Guru Das, M.A., D.L., Judge, High Court. <i>Calcutta.</i>
1896 Mar. 4.	N.R.	Banerji, Satish Chandra, M.A. <i>Allahabad.</i>
1869 Dec. 1.	L.M.	Barker, R. A., M.D. <i>Europe.</i>
1885 Nov. 4.	R.	Barman, Damudar Das. <i>Calcutta.</i>
1877 Jan. 17.	N.R.	Barman, H. H. The Maharaja Radha Kishor Dev. <i>Tipperah.</i>
1898 Mar. 2.	N.R.	Barnes, Herbert Charles, I.C.S. <i>Shillong.</i>
1902 May 7.	R.	Bartlett, E. W. J. <i>Calcutta.</i>
1894 Sept. 27.	R.	Basu, Nagendra Natha. <i>Calcutta.</i>
1898 May 4.	R.	Bathgate, J. <i>Calcutta.</i>
1895 July 3.	L.M.	Beatson-Bell, Nicholas Dodd, B.A., I.C.S. <i>Europe.</i>
1876 Nov. 15.	F.M.	Beveridge, Henry, I.C.S. (retired). <i>Europe.</i>
1900 April 4.	N.R.	Bingley, Major A. H., I.S.C. <i>Simla.</i>
1898 Nov. 2.	N.R.	Black, Robert Greenhill. <i>Sylhet.</i>
1859 Aug. 3.	L.M.	Blanford, William Thomas, LL.D., A.R.S.M., F.G.S., F.R.G.S., F.Z.S., F.R.S. <i>Europe.</i>
1897 Feb. 3.	R.	Bloch, Theodor, Ph.D. <i>Calcutta.</i>
1893 Feb. 1.	N.R.	Bodding, The Revd. P. O. <i>Rampore Haut.</i>
1885 Mar. 4.	R.	Bolton, The Hon. Mr. Charles Walter, C.S.I., I.C.S. <i>Calcutta.</i>
1895 July 3.	A.	Bonham-Carter, Norman, I.C.S. <i>Europe.</i>
1890 July 2.	A.	Bonnerjee, Womes Chunder, Barrister-at-Law, Middle Temple. <i>Europe.</i>
1897 June 2.	N.R.	Bose, Annada Prasad, M.A. <i>Rajshahi.</i>
1895 Mar. 6.	R.	Bose, Jagadis Chandra, M.A., D.Sc., C.I.E., Bengal Education Service. <i>Calcutta.</i>
1880 Nov. 3.	N.R.	Bose, Pramatha Nath, B.Sc., F.G.S. Geological Survey of India. <i>Shillong.</i>
1895 April 3.	R.	Bourdillon, The Hon. Mr. James Austin, C.S.I., I.C.S. <i>Calcutta.</i>
1860 Mar. 7.	L.M.	Brandis, Sir Dietrich, K.C.I.E., Ph.D., F.L.S., F.R.S. <i>Europe.</i>
1900 Aug. 1.	A.	Brown, Major E. Harold, M.D., I.M.S. <i>Europe.</i>
1901 Sept. 25.	R.	Buchanan, Major W. J., I.M.S. <i>Calcutta.</i>
1887 May 4.	R.	Bural, Nobin Chand, Solicitor. <i>Calcutta.</i>
1901 June 5.	R.	Burkill, I. H. <i>Calcutta.</i>
1896 Jan. 8.	N.R.	Burn, Richard, I.C.S. <i>Allahabad.</i>
1900 May 2.	N.R.	Butcher, Flora, M.D. <i>Palwal.</i>
1898 Sept. 30.	A.	Cable, Ernest. <i>Europe.</i>
1896 Jan. 8.	R.	Caddy, Dr. Arnold. <i>Calcutta.</i>
1901 Jan. 2.	A.	Campbell, Duncan. <i>Europe.</i>
1901 Mar. 6.	N.R.	Campbell, W. E. N., I.C.S. <i>Mirzapur.</i>
1895 July 3.	R.	Carlyle, Robert Warrand, C.I.E., I.C.S. <i>Calcutta.</i>
1890 June 4.	R.	Chakravati, Man Mohan, M.A., B.L. Deputy Magistrate. <i>Hooghly.</i>
1901 Mar. 6.	N.R.	Chakravarti, Manmatha Nath. <i>Tamluk, Midnapur.</i>
1902 April 2.	R.	Chandra, Raj Chander, Attorney-at-Law. <i>Calcutta.</i>

Date of Election.		
1901 June 5.	N.R.	Chapman, E. P., I.C.S. <i>Mozuffarpore.</i>
1894 Aug. 1.	N.R.	Chatterjee, M. N. <i>Patiala.</i>
1902 Aug. 27.	R.	Chaudhuri, A., Barrister-at-Law. <i>Calcutta.</i>
1893 Sept. 28.	R.	Chaudhuri, Banawari Lala, B.Sc., Edin. <i>Calcutta.</i>
1899 Jan. 4.	A.	Clemow, Dr. Frank Gerard, M.D., Edin. <i>Europe.</i>
1880 Aug. 26.	F.M.	Clerk, Major-Genl. Malcolm G. <i>Europe.</i>
1889 Nov. 6.	A.	Colville, William Brown. <i>Europe.</i>
1890 Dec. 3.	A.	Connan, William, C.E. <i>Europe.</i>
1898 June 1.	N.R.	Cordier, Dr. Palmyr. <i>Pondicherry.</i>
1876 Mar. 1.	F.M.	Crawford, James, B.A., I.C.S. <i>Europe.</i>
1901 June 5.	A.	Crawford, Major D. G., I.M.S. <i>Europe.</i>
1887 Aug. 25.	R.	Criper, William Risdon, F.C.S., F.I.C., A.R.S.M. <i>Calcutta.</i>
1877 June 6.	A.	Croft, Sir Alfred W., M.A., K.C.I.E. <i>Europe.</i>
1895 July 3.	N.R.	Cumming, John Ghest, I.C.S. <i>Patna.</i>
1898 Aug. 26.	N.R.	Cuppage, Captain W. A., I.S.C. <i>Dibrugarh.</i>
1873 Dec. 3.	F.M.	Dames, Mansel Longworth, I.C.S. <i>Europe.</i>
1896 Mar. 4.	R.	Das-Gupta, Jogendra Nath, B.A., Barrister-at-Law. <i>Calcutta.</i>
1901 Aug. 28.	N.R.	Das, Govinda. <i>Benares.</i>
1865 June 7.	N.R.	Das, Raja Jay Krishna, Bahadur, C.S.I. <i>Moradabad.</i>
1879 April 7.	N.R.	Das, Ram Saran, M.A., Secy., Oudh Commercial Bank, Limited. <i>Fyzabad, Oudh.</i>
1900 July 4.	N.R.	Das, Syam Sunder, B.A. <i>Benares.</i>
1895 Sept. 19.	N.R.	De, Kiran Chandra, B.A., I.C.S. <i>Faridpur.</i>
1902 Mar. 5.	R.	Deb Raja Binoy Krishna, Bahadur. <i>Calcutta.</i>
1895 Dec. 4.	N.R.	Delmerick, Charles Swift. <i>Budaon.</i>
1893 Mar. 1.	A.	Deussen, Dr. Paul. <i>Europe.</i>
1900 May 2.	N.R.	Dev, Raja Satindra, Rai Mahesaya. <i>Bansberia.</i>
1899 Aug. 30.	N.R.	Dev, Raj Kumar Satchidanand, Bahadur. <i>Deogarh, Sambalpur.</i>
1901 June 5.	N.R.	Dey, Nundolal. <i>Tamluk, Midnapur.</i>
1902 Feb. 5.	N.R.	Dixon, F. P., I.C.S. <i>Balasore.</i>
1898 Jan. 5.	F.M.	Dods, W. K. <i>Europe.</i>
1902 July 2.	R.	Doxey, F. <i>Calcutta.</i>
1886 June 2.	R.	Doyle, Patrick, C.E., F.R.A.S., F.R.S.E., F.G.S., <i>Calcutta.</i>
1902 Jan. 8.	N.R.	Drummond, J. R., I.C.S. <i>Shahpur.</i>
1892 Sept. 22.	R.	Drury, Major Francis James, M.B., I.M.S. <i>Calcutta.</i>
1889 Jan. 2.	N.R.	Dudgeon, Gerald Cecil, Holta Tea Co., Ltd. <i>Palampur.</i>
1879 Feb. 5.	N.R.	Duthie, J. F., B.A., F.L.S. <i>Saharanpur.</i>
1892 Jan. 6.	N.R.	Dutt, Gerindra Nath. <i>Bankipore.</i>
1877 Aug. 30.	R.	Dutt, Kedar Nath. <i>Calcutta.</i>
1892 Aug. 25.	R.	Dutt, Rai Narsingh Chunder, Bahadur. <i>Howrah.</i>
1900 April 4.	A.	Dyson, Major Herbert Jekyl, F.R.C.S., I.M.S. <i>Europe.</i>

Date of Election.			
1900 July 4.	R.	Earle, A., I.C.S.	<i>Calcutta.</i>
1901 June 5.	N.R.	Ede, Francis Joseph, C.E., A.M.I.C.E., F.G.S.	<i>Silchar, Cachar.</i>
1871 Dec. 2.	A.	Eliot, Sir John, M.A., K.C.I.E., F.R.S.	<i>Europe.</i>
1900 Mar. 7.	A.	Fanshawe, Sir Arthur Upton, C.S.I., K.C.I.E., I.C.S.	<i>Europe.</i>
1900 Aug. 29.	A.	Fanshawe, The Hon. Mr. H. C., C.S.I., I.C.S.	<i>Europe.</i>
1901 Mar. 6.	N.R.	Fergusson, J. C.	<i>Hardoi, Oudh.</i>
1899 Jan. 4.	A.	Ferrar, Lieutenant, M. Ll., I.S.C.	<i>Europe.</i>
1894 Dec. 5.	A.	Finn, Frank, B.A., F.Z.S.	<i>Europe.</i>
1898 Sept. 30.	R.	Firminger, The Revd. Walter K., M.A.	<i>Calcutta.</i>
1892 May 4.	A.	Forrest, G. W., B.A.	<i>Europe.</i>
1902 April 2.	N.R.	Fuller, The Hon'ble Mr. J. B., C.I.E.	<i>Shillong.</i>
1900 Dec. 5.	N.R.	Gabriel, E. V., I.C.S.	<i>Indore.</i>
1893 Jan. 11.	R.	Gait, Edward Albert, I.C.S.	<i>Calcutta.</i>
1902 May 7.	N.R.	Garrett, A., I.C.S.	<i>Mozuffarpore.</i>
1899 Aug. 30.	R.	Garth, Dr. H. C.	<i>Calcutta.</i>
1902 June 4.	N.R.	Ghaznavi, A. A.	<i>Mymensing.</i>
1889 Jan. 2.	R.	Ghose, Jogendra Chandra, M.A., B.L.	<i>Calcutta.</i>
1902 Feb. 5.	R.	Ghosh, Girish Chander.	<i>Calcutta.</i>
1889 Mar. 6.	R.	Ghosha, Bhupendra Sri, B.A., B.L.	<i>Calcutta.</i>
1869 Feb. 3.	N.R.	Ghosla, Pratapa Chandra, B.A.	<i>Vindychul.</i>
1897 Dec. 6.	A.	Godfrey, Captain Stuart, I.S.C.	<i>Europe.</i>
1861 Feb. 5.	N.S.	Godwin-Austen, Lieut.-Colonel H. H., F.R.S., F.Z.S., F.E.G.S.	<i>Europe.</i>
1899 Aug. 2.	R.	Goenka, Roormall.	<i>Calcutta.</i>
1896 Nov. 4.	A.	Grant, A. J., I.C.S.	<i>Europe.</i>
1897 July. 7.	N.R.	Grant, Captain J. W., I.M.S.	<i>Muscat.</i>
1876 Nov. 15.	F.M.	Grierson, George Abraham, PH D., C.I.E., I.C.S.	<i>Europe.</i>
1900 Dec. 5.	L.M.	Grieve, J. W. A.	<i>Kalimpong.</i>
1901 April 3.	N.R.	Guha, Abhaya Sankara.	<i>Shillong.</i>
1898 June 1.	N.R.	Gupta, Bepin Behari.	<i>Ohota Nagpur.</i>
1898 April 6.	N.R.	Gupta, Krishna Govinda, I.C.S., Barrister-at-Law.	<i>Outtack.</i>
1898 Jan. 5.	N.R.	Gurdon, Captain P. R. T., I.S.C.	<i>Gauhati.</i>
1901 Mar. 6.	N.R.	Habibur Rahman Khan, Maulvie.	<i>Bhikampur.</i>
1892 Jan. 6.	N.R.	Haig, Captain Wolseley, I.S.C.	<i>Berar.</i>
1899 April 5.	F.M.	Hare, Major E. C., I.M.S.	<i>Europe.</i>
1901 Jan. 2.	R.	Harris, Lieut.-Col. G. F. A., I.M.S.	<i>Calcutta.</i>
1884 Mar. 5.	L.M.	Hassan Ali Qadr, Sir Syud, Nawab Bahadur, K.C.I.E.	<i>Murshedabad</i>
1897 Feb. 3.	R.	Hayden, H. H., B.A., B.E., F.G.S., Geological Survey of India.	<i>Calcutta.</i>
1875 Mar. 3.	R.	Hendley, Col. Thomas Holbein, C.I.E., I.M.S., Inspector-General of Civil Hospitals, Bengal.	<i>Calcutta.</i>

Date of Election.			
1892 Aug. 3.	A.	Hill, Samuel Charles, B.A., B.Sc.	<i>Europe.</i>
1872 Dec. 5.	A.	Hoernle, Augustus Frederick Rudolf, PH.D., C.I.F.	<i>Europe.</i>
1878 Mar. 6.	A.	Hoey, W., PH.D., I.C.S. (retired).	<i>Europe.</i>
1891 July 1.	A.	Holland, Thomas Henry, F.G.S., A.R.C.S.	<i>Europe.</i>
1898 Feb. 2.	R.	Hooper, David, F.C.S.	<i>Calcutta.</i>
1884 Mar. 5.	N.R.	Hooper, The Hon. Mr. John, B.A., I.C.S.	<i>Allahabad.</i>
1901 Dec. 4.	R.	Hossack, Dr. W. C.	<i>Calcutta.</i>
1873 Jan. 2.	L.M.	Houstoun, G. L., F.G.S.	<i>Europe.</i>
1890 Dec. 3.	N.R.	Hyde, The Revd. Henry Barry, M.A.	<i>Madras.</i>
1866 Mar. 7.	F.M.	Irvine, William, I.C.S. (retired).	<i>Europe.</i>
1899 April 5.	R.	Kemphorne, H. E.	<i>Calcutta.</i>
1882 Mar. 1.	N.R.	Kennedy, Pringle, M.A.	<i>Mozuffarpore.</i>
1867 Dec. 4.	A.	King, Sir George, M.B., K.C.I.E., LL.D., F.L.S., F.R.S., I.M.S. (retired).	<i>Europe.</i>
1881 Mar. 2.	N.R.	King, Lucas White, B.A., LL.B., C.S.I., I.C.S.	<i>Dharamsala.</i>
1896 Aug. 27.	A.	Konstam, Edwin Max, I.C.S.	<i>Europe.</i>
1896 July 1.	R.	Küchler, George William, M.A., Bengal Education Service.	<i>Calcutta.</i>
1891 Feb. 4.	N.R.	Kupper, Raja Lala Bhubehari.	<i>Burdwan.</i>
1899 Aug. 30.	N.R.	Lal, Dr. Maunu.	<i>Banda.</i>
1902 Feb. 5.	N.R.	Lal, Lala Shyam.	<i>Cawnpore.</i>
1902 Jan. 8.	N.R.	Lall, Parmeshwara.	<i>Gya.</i>
1887 May 4.	L.M.	Lanman, Charles R.	<i>Europe.</i>
1889 Mar. 6.	R.	La Touche, Thomas Henry Digges, B.A., Geological Survey of India.	<i>Calcutta.</i>
1900 Sep. 19.	R.	Law, The Hon. Sir Edward F. G., K.C.M.G., C.S.I.	<i>Calcutta.</i>
1902 July 2.	N.R.	Leake, H. M.	<i>Dalsing Sarai.</i>
1889 Nov. 6.	R.	Lee, W. A., F.R.M.S.	<i>Calcutta.</i>
1900 May. 2.	A.	Leistikow, F. R.	<i>Europe.</i>
1902 Oct. 29.	R.	Lewes, A. H.	<i>Calcutta.</i>
1889 Feb. 6.	R.	Little, Charles, M.A., Bengal Education Service.	<i>Calcutta.</i>
1902 July 2.	R.	Luke, James.	<i>Calcutta.</i>
1869 July 7.	F.M.	Lyll, Sir Charles James, M.A., K.C.S.I., C.I.E., LL.D., I.C.S. (retired).	<i>Europe.</i>
1870 April 7.	L.M.	Lyman, B. Smith.	<i>Europe.</i>
1896 Mar. 4.	N.R.	MacBlaine, Frederick, I.C.S.	<i>Purneah.</i>
1902 July 2.	R.	Macdonald, Dr. William Roy.	<i>Calcutta.</i>
1901 Aug. 7.	R.	Macfarlane, John, Librarian, Imperial Library.	<i>Calcutta.</i>
1893 Jan. 11.	L.M.	MacLagan, E. D., M.A., I.C.S.	<i>Multan.</i>
1891 Feb. 4.	A.	Macpherson, Duncan James, M.A., C.I.F., I.C.S.	<i>Europe.</i>

Date of Election		
1896 Feb. 5	R.	Macpherson, The Hon'ble Mr. William Charles, C.S.I., I.C.S. <i>Calcutta.</i>
1902 April 2	N.R.	Maddox, Captain R. H., I.M.S. <i>Ranchi.</i>
1893 Aug. 31.	N.R.	Mahatha, Purmeshwar Narain. <i>Moruffarpore.</i>
1895 Aug. 29.	R.	Mahomed Gilani, Shamas-ul-Ulama Shaikh. <i>Calcutta.</i>
1898 Nov. 2.	N.R.	Maitra, Akshaya Kumar, B.A., B.L. <i>Rajshahi.</i>
1889 Jan. 2.	R.	Maliah, Kumar Ramessur. <i>Howrah.</i>
1893-July 5.	A.	Mangos, C. D. <i>Europe.</i>
1901 June 5.	R.	Mann, H. H., B.Sc. <i>Calcutta.</i>
1889 Mar. 6.	A.	Mann, John, M.A. <i>Europe.</i>
1893 Mar. 1.	A.	Marriott, Charles Richardson, I.C.S. <i>Europe.</i>
1902 May 7.	N.R.	Marshall, J. H. <i>Simla.</i>
1892 April 6.	R.	Maynard, Major F. P., I.M.S. <i>Calcutta.</i>
1901 Aug. 28.	R.	McLeod, Norman. <i>Calcutta.</i>
1899 Feb. 1.	N.R.	McMahon, Captain A. H., C.S.I., C.I.E., I.S.C. <i>Quetta.</i>
1899 Mar. 1.	N.R.	McMinn, C. W., B.A., I.C.S. (retired). <i>Comilla.</i>
1886 Mar. 3.	L.M.	Metha, Rustomjee Dhunjeebhoy, C.I.E. <i>Calcutta.</i>
1895 July 3.	F.M.	Melitus, Paul Gregory, C.I.E., I.C.S. <i>Europe.</i>
1900 Mar. 7.	N.R.	Meyer, William Stevenson, I.C.S. <i>Madras.</i>
1900 Jan. 19.	R.	Michie, Charles. <i>Calcutta.</i>
1884 Nov. 5.	R.	Middlemiss, C. S., B.A., Geological Survey of India. <i>Calcutta.</i>
1884 Sep. 3.	R.	Miles, William Harry. <i>Calcutta.</i>
1870 July 6	R.	Miller, Albert Bermingham, B.A., Barrister-at-Law, Official Trustee. <i>Calcutta.</i>
1898 April 6.	N.R.	Milne, Captain C. J., I.M.S. <i>Bombay.</i>
1874 May 6.	F.M.	Minchin, F. J. V. <i>Europe.</i>
1896 July 1.	N.R.	Misra, Rai Lakshmi Sanker, Bahadur. <i>Benares.</i>
1897 Jan. 6.	N.R.	Misra, Tulsi Ram. <i>Bareilly.</i>
1899 Mar. 1.	R.	Mitra, J. C., M.A., B.L. <i>Calcutta.</i>
1901 Aug. 28.	R.	Mitra, Kumar Narendra Nath. <i>Calcutta.</i>
1897 Nov. 3.	R.	Mitra, The Hon'ble Mr. Justice Saroda Churan, M.A., B.L. <i>Calcutta.</i>
1901 Aug. 7.	N.R.	Molony, E., I.C.S. <i>Ghazipur.</i>
1895 July 3.	N.R.	Mouohau, Francis John, I.C.S. <i>Shillong.</i>
1898 May 4.	R.	Mookerjee, R. N. <i>Calcutta.</i>
1898 Sep. 30.	R.	Moore, The Revd. Herbert Octavius, M.A. <i>Calcutta.</i>
1902 July 2.	R.	Morshead, L. F., I.C.S. <i>Calcutta.</i>
1894 June 6.	N.R.	Muhammad Shibli Nomani, Shams-ul-Ulama Maulvie, Professor of Arabic in the Muhammadau Oriental College. <i>Aligarh.</i>
1902 April 2.	R.	Mukerjee, Jaladhi Chunder. <i>Calcutta.</i>
1901 Jan. 2.	N.R.	Mukerjee, Dr. U. C. <i>Birbhoom.</i>
1894 Aug. 30	R.	Mukerjee, Sib Narayan. <i>Uttarpara.</i>
1900 May 2.	R.	Mukerji, P. B., B.Sc. <i>Calcutta.</i>
1899 Sept. 29.	R.	Mukharji, Jotindra Nath, B.A. <i>Calcutta.</i>
1886 May 5.	R.	Mukhopadhyaya, The Hon. Dr. Asutosh, M.A., D.L. F.R.A.S., F.R.S.E. <i>Calcutta.</i>

Date of Election.		
1892 Dec. 7.	R.	Mukhopadhyaya, Panchanana. <i>Calcutta.</i>
1901 April 3.	R.	Mullick, Pramatha Nath. <i>Calcutta.</i>
1901 June 5.	N.R.	Mullick, Ramani Mohan. <i>Meherpur.</i>
1885 June 3.	N.R.	Naemwoollah, Maulvie, Deputy Magistrate. <i>Etawah.</i>
1901 Mar. 6.	N.R.	Nevill, H. R., I.C.S. <i>Naini Tal.</i>
1900 Dec. 5.	R.	Nicoll, John. <i>Calcutta.</i>
1889 Aug. 29.	L.M.	Nimmo, John Duncan. <i>Calcutta.</i>
1901 Feb. 6.	R.	Noetling, Dr. F. <i>Calcutta.</i>
1892 Oct. 27.	F.M.	Norvill, Dr. Frederic H. <i>Europe.</i>
1885 Feb. 4.	N.R.	Nyayaratna, Mahāmāhōpādhyāya Mahesa Chandra, C.I.E. <i>Benares.</i>
1899 Jan. 7.	N.R.	O'Brien, P. H., I.C.S. <i>Purneah.</i>
1900 Aug. 29.	A	O'Dwyer, Michael Francis, B.A., I.C.S. <i>Europe.</i>
1880 Dec. 1.	R.	Oldham, R. D., A.R.S.M., F.G.S., Geological Survey of India. <i>Calcutta.</i>
1887 July 6.	R.	Oung, Moungh Hla. <i>Calcutta.</i>
1901 Jan. 2.	N.R.	Pande, Pandit Ramavatar, B.A., I.C.S. <i>Jhansi.</i>
1880 Aug. 4.	L.M.	Pandia, Pandit Mohanlall Vishnulall, F.T.S., <i>Muttra.</i>
1901 Aug. 28.	A.	Panton, E. B. H., I.C.S. <i>Europe.</i>
1880 Jan. 7.	A.	Pargiter, Frederick Eden, B.A., I.C.S. <i>Europe.</i>
1901 June 5.	R.	Parsons, W. <i>Calcutta.</i>
1899 Aug. 2.	N.R.	Peake, C. W., M.A., Bengal Education Service. <i>Bankipur.</i>
1902 Aug. 6.	R.	Peal, H. W. <i>Calcutta.</i>
1873 Aug. 6.	R.	Pedler, Alexander, C.I.E., F.R.S., Director of Public Instruction, Bengal. <i>Calcutta.</i>
1888 June 6.	L.M.	Pennell, Aubray Percival, B.A., Bar.-at-Law. <i>Europe.</i>
1881 Aug. 25.	R.	Percival, Hugh Melville, M.A., Bengal Education Service. <i>Calcutta.</i>
1877 Aug. 1.	N.R.	Peters, Lieut.-Colonel O. T., M.B., I.M.S. <i>Bombay.</i>
1889 Nov. 6.	N.R.	Phillott, Major D. C., I.S.C. <i>Kerman, Persia.</i>
1889 Mar. 6.	R.	Prain, Major David, M.A., M.B., LL.D., I.M.S., Royal Botanic Garden. <i>Sibpur.</i>
1889 Mar. 6.	N.R.	Prasad, Hanuman, Raes and Zemindar. <i>Chunar.</i>
1896 Sept. 25.	N.R.	Pringle, A. T. <i>Madras.</i>
1880 April 7.	N.R.	Rai, Bipina Chandra, B.L. <i>Jessore.</i>
1895 Aug. 29.	R.	Rai, Jatindra Nath Chaudhery, M.A., B.L. <i>Barnagar.</i>
1901 June 5.	N.R.	Rai, Lala Lajpat. <i>Lahore.</i>
1900 April 4.	R.	Raleigh, The Hon. Mr. T. <i>Calcutta.</i>
1898 Aug. 3.	N.R.	Ram, Sita, M.A. <i>Ballia.</i>
1890 Mar. 5.	R.	Ray, Prafulla Chandra, D.Sc., Bengal Education Service. <i>Calcutta.</i>
1887 May 4.	R.	Ray, Prasanna Kumar, D.Sc. (Lond. and Edin.), Bengal Education Service. <i>Calcutta.</i>
1884 Mar. 5.	R.	Risley, Herbert Hope, B.A., C.I.E., I.C.S. <i>Calcutta.</i>

Date of Election.		
1900 April 4.	R.	Rogers, Captain Leonard, M.D., B.Sc., M.B.C.P., F.R.C.S., I.M.S. <i>Calcutta.</i>
1900 Aug. 29.	N.R.	Rose, H. A., I.C.S. <i>Lahore.</i>
1901 Dec. 4.	R.	Ross, E. Denison, Ph.D. <i>Calcutta.</i>
1896 Dec. 2.	N.R.	Row, B. Suryanaran, B.A. <i>Bellary.</i>
1889 June 5.	N.R.	Roy, Maharaja Girjanath. <i>Dinagepur.</i>
1885 Mar. 4.	R.	Rustomjee, Harjeebhoy Manickjee, C.I.E. <i>Calcutta.</i>
1896 Aug. 27.	N.R.	Samman, Herbert Frederick, I.C.S. <i>Barisal.</i>
1899 June 7.	N.R.	Sarkar, Chandra Kumar. <i>Kowkanik.</i>
1898 Mar. 2.	N.R.	Sarkar, Jadu Nath. <i>Bankipore.</i>
1897 Nov. 3.	A.	Saunders, C. <i>Europe.</i>
1902 Feb. 5.	R.	Schulten, Dr. C. <i>Calcutta.</i>
1900 Dec. 5.	N.R.	Schwaiger, Imre George. <i>Delhi.</i>
1893 Jan. 11.	L.M.	Scindia, His Highness the Maharaja. <i>Gwalior.</i>
1902 Feb. 5.	N.R.	Sen, A. C., I.C.S. <i>Rungpur.</i>
1900 Dec. 5.	N.R.	Sen, Birendra Chandra, I.C.S. <i>Dinajpur.</i>
1901 Aug. 28.	R.	Sen, Upendranath. <i>Calcutta.</i>
1885 April 1.	R.	Sen, Yadu Nath. <i>Calcutta.</i>
1897 Dec. 1.	N.R.	Seth, Mesrovb J. <i>Singapore.</i>
1900 Mar. 7.	R.	Shastree, Pandit Yogesha Chandra. <i>Calcutta.</i>
1885 Feb. 4.	R.	Shastri, Mahāmāhopādhyāya Haraprasād, M.A. <i>Calcutta.</i>
1902 Dec. 3.	N.R.	Shastri, Harnarain. <i>Delhi.</i>
1902 Mar. 5.	R.	Shastri, Rajendra Chandra, M.A. <i>Calcutta.</i>
1900 May 2.	R.	Shrager, Adolphe. <i>Calcutta.</i>
1899 May 3.	N.R.	Silberrad, Chas. A., I.C.S. <i>Lalitpur, Bundelkhand.</i>
1893 Mar. 1.	N.R.	Singh, Maharaja Kumara Sirdar Bharat, I.C.S. <i>Ghaziipur.</i>
1902 Sep. 24.	R.	Singh, Kumar Birendra Chandra. <i>Calcutta.</i>
1895 Aug. 29.	R.	Singh, Lachmi Narayan, M.A., B.L. <i>Calcutta.</i>
1892 Mar. 2.	L M	Singh, The Hon. Raja Ooday Pratab. <i>Binga.</i>
1889 Aug. 29.	N.R.	Singh, H. H. The Maharaja Prabhu Narain, Bahadur. <i>Benares.</i>
1892 Aug. 3.	N.R.	Singh, H. H. The Hon. Maharaja Pratap Narain. <i>Ajodhya, Oudh.</i>
1895 Aug. 29.	N.R.	Singh, Ram Din. <i>Bankipur.</i>
1889 Nov. 6.	N.R.	Singh, H. H. The Hon. Maharaja Rameshwara, Bahadur. <i>Darbhanga.</i>
1894 Feb. 7.	N.R.	Singh, H. H. Raja Vishwa Nath, Bahadur, Chief of Chhatarpur.
1901 Aug. 7.	R.	Singha, Chandra Narayan. <i>Calcutta.</i>
1894 July 4.	N.R.	Sinha, Kunwar Kushal Pal, M.A. <i>Narki P.O., Agra District.</i>
1899 June 7.	N.R.	Sinha, Purnenda Narayan. <i>Bankipur.</i>
1867 April 3.	R.	Sircar, Dr. Mahendra Lal, M.D., C.I.E., D.L. <i>Calcutta.</i>
1897 Jan. 6.	R.	Sircar, Amrita Lal, F.C.S. <i>Calcutta.</i>
1872 Aug. 5.	N.R.	Skræfserud, The Revd. Laurentius Olavi. <i>Rampore Haut.</i>

Date of Election.		
1901 Dec. 4.	N.R.	Spooner, D. Brainerd. <i>Benares</i>
1899 Nov. 1.	N.R.	Srivastavya, Lala Shyam Sunder Lal. <i>Pertabgarh.</i>
1898 April 6.	N.R.	Stark, Herbert A., B.A. <i>Uttack.</i>
1901 Mar. 6.	N.R.	Stebbing, E. P. <i>Dehra Dun.</i>
1891 Aug. 27.	A.	Stein, M. A., Ph.D. <i>Europe.</i>
1895 July 5.	A.	Steinberg, Alfred Frederiok, I.C.S. <i>Europe.</i>
1899 Aug. 30.	R.	Stephen, St. John, B.A., LL.B. Barrister-at-Law. <i>Calcutta.</i>
1900 Aug. 29.	N.R.	Stephenson, Captain John, I.M.S. <i>Guyrat.</i>
1899 Mar. 1.	R.	Tocher, A. <i>Calcutta.</i>
1868 June 3.	R.	Tagore, The Hon. Maharaja Sir Jotendra Mohun, Bahadur, K.C.S.I. <i>Calcutta.</i>
1898 April 6.	R.	Tagore, Maharaja Prodyat Coomar. <i>Calcutta.</i>
1893 Aug. 31.	N.R.	Tate, G. P. <i>Hongkong.</i>
1878 June 5.	N.R.	Temple, Colonel Richard Carnac, C.I.E., I.S.C. <i>Port Blair.</i>
1875 June 2.	N.R.	Thibaut, Dr. G., Muir Central College. <i>Allahabad.</i>
1898 Nov. 2.	R.	Thornton, Edward, A.R.I.B.A. <i>Calcutta.</i>
1847 June 2.	L.M.	Thuillier, Lient.-Genl. Sir Henry Edward Landor, Kt., C.S.I., F.R.S., B.A. <i>Europe.</i>
1891 Aug. 27.	N.R.	Thurston, Edgar. <i>Madras.</i>
1871 April 5.	A.	Trefftz, Oscar. <i>Europe.</i>
1861 June 5.	L.M.	Tremlett, James Dyer, M.A., I.C.S. (retired). <i>Europe.</i>
1893 May 3.	N.R.	Vanja, Raja Ram Chandra. <i>Mayurbhanga, District Balasore.</i>
1898 Feb. 2.	R.	Vasu, Amrita Lal. <i>Calcutta.</i>
1900 Aug. 29.	R.	Vaugham, Major J. C., I.M.S. <i>Calcutta.</i>
1890 Feb. 5.	N.R.	Venis, Arthur, M.A., Principal, Sanskrit College. <i>Benares.</i>
1902 May 7.	R.	Vidyabhushan, Jogendra Nath Sen. <i>Calcutta.</i>
1902 June 4.	R.	Vidyabhushan, Pandit Satis Chandra, M.A. <i>Calcutta.</i>
1901 Mar. 6.	N.R.	Vogel, Dr. J. Ph. <i>Lahore.</i>
1894 Sept. 27.	L.M.	Vost, Major William, I.M.S. <i>Jaunpur.</i>
1902 Oct. 29.	R.	Vredenbug, E. <i>Calcutta.</i>
1901 Aug. 7.	A.	Walker, Dr. T. L. <i>Europe.</i>
1900 Jan. 19.	R.	Wallace, David Robb. <i>Calcutta.</i>
1901 June 5.	N.R.	Walsh, E. H., I.C.S. <i>Darjeeling.</i>
1889 Nov. 6.	A.	Walsh, Major John Henry Tull, I.M.S. <i>Europe.</i>
1900 April 4.	R.	Walton, Captain Herbert James, M.B., F.R.C.S., I.M.S. <i>Calcutta.</i>
1865 May 3.	A.	Waterhouse, Major-General James, I.S.C. (retired). <i>Europe.</i>
1874 July 1.	R.	Watt, Sir George, Kt., C.I.E. <i>Calcutta.</i>
1899 Sept. 29.	A.	Welldon, The Most Revd. James Edward Cowell, D.D. <i>Europe.</i>
1902 April 2.	R.	Wheeler, H., I.C.S. <i>Calcutta.</i>

Date of Election.		
1896 Feb. 5.	A.	Williams, Captain Charles E., I.M.S. <i>Europe.</i>
1891 May 6.	R.	Wilson, Charles Robert, M.A., Bengal Education Service. <i>Calcutta.</i>
1899 Aug. 30.	R.	Wood, E. Seymour, F.G.S. <i>Calcutta.</i>
1900 Dec. 5.	R.	Woodman, H. C., I.C.S. <i>Calcutta.</i> [cutta.
1894 Sept. 27.	R.	Woodroffe, John George, Barrister-at-Law. <i>Cal-</i>
1894 Aug. 30.	N.R.	Wright, Henry Nelson, B.A., I.C.S. <i>Allahabad.</i>
1898 July 6.	R.	Wyness, James, C.E. <i>Calcutta.</i>

SPECIAL HONORARY CENTENARY MEMBERS.

Date of Election.		
1884 Jan. 15.		Dr. Ernst Haeckel, Professor in the University of Jena.
1884 Jan. 15.		Charles Meldrum, Esq., C.M.G., M.A., LL.D., F.R.A.S., F.R.S. <i>Mauritius.</i>
1884 Jan. 15.		Professor A. H. Sayce, Professor of Comp. Philology. <i>Oxford.</i>
1884 Jan. 15.		Professor Emile Senart, Member of the Institute of France. <i>Paris.</i>

HONORARY MEMBERS.

1848 Feb. 2.		Sir Joseph Dalton Hooker, G.C.S.I., C.B., M.D., D.C.L., LL.D., F.L.S., F.G.S., F.R.G.S., F.R.S. <i>Berkshire.</i>
1875 Nov. 3.		Dr. Otto von Böhtlingk. <i>Leipzig.</i>
1879 June 4.		Professor Edward Bayles Cowell, D.C.L. <i>Cambridge.</i>
1879 June 4.		Dr. Albert Günther, M.A., M.D., PH.D., F.L.S., F.Z.S., F.R.S. <i>Surrey.</i>
1879 June 4.		Dr. Jules Janssen. <i>Paris.</i>
1879 June 4.		Professor P. Regnaud. <i>Lyons.</i>
1881 Dec. 7.		Lord Kelvin, G.C.V.O., D.C.L., LL.D., F.R.S.E., F.R.S. <i>Glasgow.</i>
1888 Feb. 7.		William Thomas Blanford, Esq., LL.D., A.E.S.M., F.G.S., F.R.G.S., F.Z.S., F.R.S. <i>London.</i>
1883 Feb. 7.		Alfred Russell Wallace, Esq., LL.D., D.C.L., F.L.S., F.Z.S., F.R.S. <i>Dorset.</i>
1894 Mar. 7.		Sir George Gabriel Stokes, Bart, M.A., D.C.L., LL.D., D.SC., F.C.P.S., F.R.S.E., F.R.S. <i>Cambridge.</i>
1894 Mar. 7.		Mahāmāhāpodhyāya Chandra Kanta Tarkalankara. <i>Calcutta.</i>
1894 Mar. 7.		Professor Theodor Noeldeke. <i>Strassburg.</i>
1895 June 5.		Lord Rayleigh, M.A., D.C.L., D.SC., LL.D., PH.D., F.R.A.S., F.R.S. <i>Witham, Essex.</i>
1895 June 5.		Lt.-Genl. Sir Richard Strachey, R.E., G.C.S.I., LL.D., F.R.G.S., F.G.S., F.L.S., F.R.S. <i>London.</i>
1895 June 5.		Charles H. Tawney, Esq., M.A., C.I.E. <i>London.</i>
1896 Feb. 5.		Lord Lister, F.R.C.S., D.C.L., M.D., LL.D., D.SC., F.R.S. <i>London.</i>

Date of Election.	
1896 Feb. 5.	Sir Michael Foster, K.C.B., M.A., M.D., D.C.L., LL.D., D.Sc., F.L.S., F.C.S., F.R.S. <i>Cambridge.</i>
1896 Feb. 5.	Professor F. Kielhorn, Ph.D., C.I.E. <i>Göttingen.</i>
1896 Feb. 5.	Professor Charles Rockwell Lanmann. <i>Massachusetts, U.S.A.</i>
1899 Feb. 1.	Dr. Augustus Frederick Rudolf Hoernle, Ph.D., C.I.E. <i>Oxford.</i>
1899 Dec. 6.	Professor Edwin Ray Lankester, M.A., LL.D., F.R.S. <i>London.</i>
1899 Dec. 6.	Sir George King, K.C.I.E., M.B., LL.D., F.L.S., F.R.S. <i>London.</i>
1899 Dec. 6.	Professor Edward Burnett Tylor, D.C.L., LL.D., F.R.S. <i>Oxford.</i>
1899 Dec. 6.	Professor Edward Suess, Ph.D., For. Mem. R.S. <i>Vienna.</i>
1901 Mar. 6	Professor J. W. Judd, C.B., LL.D., F.R.S. <i>London,</i>
1902 Nov. 5.	Monsieur R. Zeiller. <i>Paris.</i>

CORRESPONDING MEMBER.

Date of Election.	
1866 May 7.	Schlagintweit, Dr. Emil. <i>Zweibrücken.</i>

ASSOCIATE MEMBERS.

Date of Elect on.	
1874 April 1.	Lafont, The Revd. Father, E., C.I.E., S.J. <i>Calcutta.</i>
1875 Dec. 1.	Bate, The Revd. J. D., M.B.A.S. <i>Kent.</i>
1875 Dec. 1.	Abdul Hai, Maulvie. <i>Calcutta.</i>
1882 June 7.	Giles, Herbert. <i>Europe.</i>
1884 Aug. 6.	Moore, F., F.L.S. <i>Surrey.</i>
1885 Dec. 2.	Führer, Dr. A. <i>Europe.</i>
1886 Dec. 1.	Das, Rai Bahadur Sarat Chandra, C.I.E. <i>Calcutta.</i>
1892 April 6.	Samasrami, Satya Vrata. <i>Calcutta.</i>
1892 Dec. 7.	Brühl, P. J. <i>Sibpur.</i>
1899 April 5.	Sanyal, Rai Bahadur Ram Brahma. <i>Calcutta.</i>
1899 April 5.	Bhandari, Visnu Prasad Raj. <i>Nepal.</i>
1899 Nov. 1.	Francotte, The Revd. Father E., S.J. <i>Calcutta.</i>
1902 June 4.	Francke, The Revd. A. H. <i>Leh.</i>

LIST OF MEMBERS WHO HAVE BEEN ABSENT FROM
INDIA THREE YEARS AND UPWARDS.*

* *Rule 40.*—After the lapse of three years from the date of a member leaving India, if no intimation of his wishes shall in the interval have been received by the Society, his name shall be removed from the List of Members.

The following members will be removed from the next Member List of the Society under the operation of the above Rule:—

Dr. Paul Deussen.
G. W. Forrest, Esq., B.A.
Oscar Trefftz, Esq.

LOSS OF MEMBERS DURING 1902.

BY RETIREMENT.

Rai Bahadur Chuni Lal Bose, M.B., F.C.S.
Hirzel Denis de Massenden Carey, Esq., I.C.S.
Kishori Mohan Chatterjea, Esq.
R. Paget Dewhurst, Esq., I.C.S.
Major H. E. Drake-Brockman, I.M.S.
Major Charles Robert Mortimer Green, F.R.C.S., I.M.S.
C. L. Griesbach, Esq., C.I.E., F.G.S.
J. G. Lorimer, Esq., I.C.S.
Captain W. F. O'Connor, R.A.
George William Place, Esq., B.A., LL.B., I.C.S.
Lient.-Col. G. M. Porter, R.E.
Captain Bernard Scott, I.S.C.
W. A. Talbot, Esq.
Lient.-Col. Lawrence Austine Waddell, M.B., LL.D., C.I.E., I.M.S.

BY DEATH.

Ordinary Members.

John Cockburn, Esq.
The Hon'ble Sir Griffith Evans, K.C.I.E.
General James Eardly Gastrell (Life member).
Captain Andrew Augustine Frayne McArdle, B.A., M.B., I.M.S.
Babu Karttik Chandra Mittra, M.A., B.L.
Edw. Emmerson Oliver, Esq., M.I.C.E.
V. R. Panidsay, Esq.
The Hon'ble Sir John Woodburn, M.A., K.C.S.I., I.C.S.

Honorary Member.

Dr. Albrecht Weber.

BY REMOVAL.

Under Rule 9.

Lient.-Col. George Ranking, I.M.S.

Under Rule 40.

Arthur William Davis, Esq., I.C.S.
J. W. Muir, Esq., I.C.S.
Frederick James Rowe, Esq., M.A.

[APPENDIX.]

ABSTRACT STATEMENTS
OF
RECEIPTS AND DISBURSEMENTS
OF THE
ASIATIC SOCIETY OF BENGAL
FOR
THE YEAR 1902.

1902.

STATEMENT *Asiatic Society*

Dr.

				Rs.	As.	P.				
To ESTABLISHMENT.										
Salaries	...	...	...	3,711	6	3			
Commission	...	...	...	420	5	5			
Pension	...	...	...	4	0	0			
							4,135	11	8	
To CONTINGENCIES.										
Stationery	...	...	...	119	1	0			
Taxes	...	...	...	884	4	0			
Postage	...	...	...	450	11	3			
Freight	...	...	...	60	6	8			
Meeting	...	...	...	75	0	0			
Auditor's fee	...	...	...	100	0	0			
Registration fee	...	...	...	5	0	0			
Petty repairs	...	...	...	68	0	3			
Insurance fee	...	...	...	625	0	0			
Miscellaneous	...	...	...	474	14	8			
							2,862	5	10	
To LIBRARY AND COLLECTIONS.										
Books	...	...	...	2,755	8	8			
Binding	...	...	...	608	12	0			
Catalogue	...	...	...	1,150	0	0			
Furniture	...	...	...	60	0	0			
							4,574	4	8	
To PUBLICATIONS.										
Journal, Part I	..	...	...	1,023	5	6			
Journal, Part II	...	...	...	964	1	3			
Journal, Part III	...	...	...	514	13	1			
Proceedings	...	...	...	492	4	6			
							2,994	8	4	
To Printing charges of Circulars, Receipt-forms, &c.							...	172	5	6
„ Personal Account (Writes-off and Miscellaneous)							...	217	0	6
To EXTRAORDINARY EXPENDITURE.										
Royal Society's Scientific Catalogue	...	...	...	1,037	10	0			
Max Müller Memorial Fund	...	...	...	35	6	0			
							1,076	0	0	
Balance	...	...	...				175,538	11	3
Total Rs.							191,570	15	9	

No 1.

of Bengal.

1902.

		Cr.			
		Rs. As. P.		Rs. As. P.	
By Balance from last Report	... ..	...		161,059	0 3
BY CASH RECEIPTS.					
Publications sold for cash	... ..	247	6 0		
Interest on Investments	... ..	6,045	8 0		
Rent of Rooms on the Society's ground floor	... ..	1,375	0 0		
Allowance from Government of Bengal for the Publication of Anthropological and Cognate subjects	... ..	2,000	0 0		
Ditto from Government of Assam	... ..	1,000	0 0		
Ditto from Colonial Secretary, Straits Settlements, for cost of publications of Sir George King's Materials for a Flora of the Malayan Peninsula	... ..	8,750	0 0		
Miscellaneous	... ..	806	1 0		
				19,723	15 0
BY EXTRAORDINARY RECEIPTS.					
Max Müller Memorial Fund	... ..	576	0 0		
Subscriptions to Royal Society's Scientific Catalogue	... ..	510	0 0		
				1,086	0 0
BY PERSONAL ACCOUNT.					
Admission fees	... ..	928	0 0		
Subscriptions	... ..	8,398	0 0		
Sales on credit	... ..	318	14 0		
Miscellaneous	... ..	57	2 6		
				9,702	0 6
Total Rs. ...				191,570	15 9

C. B. WILSON,
Honorary Secretary and Treasurer,
Asiatic Society of Bengal.

Examined and found correct.
 MEUGENS, KING & SIMSON,
Auditors.

STATEMENT

1902. *Oriental Publication Fund in Account*

Dr.

To CASH EXPENDITURE.				Rs.	As.	P.	Rs.	As.	P.
Printing charges	...	...	...	4,129	0	6			
Editing charges	...	...	...	2,297	0	0			
Salaries	...	...	...	1,519	8	0			
Freight	...	...	...	47	0	0			
Stationery	...	...	...	106	11	0			
Postage	...	...	...	223	11	3			
Commission on collection	...	...	...	23	4	7			
Contingencies	...	...	...	78	11	0			
To Personal Account (Writes-off and Miscellaneous)			...				8,424	14	4
Balance	...	...	...				9	8	0
							11,585	15	7
Total Rs.							19,970	5	11

STATEMENT

Sanskrit Manuscript Fund in Account

Dr.

To CASH EXPENDITURE.				Rs.	As.	P.	Rs.	As.	P.
Salaries	...	...	...	1,159	0	0			
Travelling charges	...	...	...	423	1	0			
Printing	...	...	...	97	5	0			
Postage	...	...	...	0	12	6			
Stationery	...	...	...	8	2	0			
Furniture	...	...	...	353	8	0			
Contingencies	...	...	...	18	2	0			
Balance	...	...	...				2,053	14	6
							8,518	13	8
Total Rs.							10,567	12	2

No. 2.

with the Asiatic Society of Bengal.

1902.

		Cr.			
		Rs.	As. P.	Rs.	As. P.
By Balance from last Report	... ..	...		8,940	5 2
BY CASH RECEIPTS.					
Government allowance	... ..	9,000	0 0		
Publications sold for cash	... ..	680	15 6		
Advances recovered	... ..	71	7 0		
		9,702		6	6
BY PERSONAL ACCOUNT.					
Sales on credit	... ..	...		1,327	10 3
		19,970		5	11
		Total Rs.		...	19,970 5 11

C. B. WILSON,
Honorary Secretary and Treasurer,
Asiatic Society of Bengal.

Examined and found correct.
 MEUGENS, KING & SIMSON,
Auditors.

No. 3.

with the Asiatic Society of Bengal.

		Cr.			
		Rs.	As. P.	Rs.	As. P.
By Balance from last Report	... ..	...		7,845	12 2
BY CASH RECEIPTS.					
Government allowance	... ..	3,200	0 0		
Publications sold for cash	... ..	15	0 0		
		3,215		0	0
BY PERSONAL ACCOUNT.					
Sales on credit	... ..	...		7	0 0
		10,567		12	2
		Total Rs.		...	10,567 12 2

C. B. WILSON,
Honorary Secretary and Treasurer,
Asiatic Society of Bengal.

Examined and found correct.
 MEUGENS, KING & SIMSON,
Auditors.

1902.

STATEMENT
Personal

Dr.

			Rs.	As.	P.	Rs.	As.	P.
To Balance from last Report	...	...	...			8,101	2	7
To CASH EXPENDITURE.								
Advances for purchase of Sanskrit Manuscripts, &c.	...	...	...			117	8	0
To Asiatic Society	...	...	9,702	0	6			
„ Oriental Publication Fund	...	...	1,827	10	3			
„ Sanskrit Manuscript Fund	...	...	7	0	0			
						11,086	10	9
Total Rs.						14,255 5 4		

STATEMENT
Invest

Dr.

			Value.			Cost.		
			Rs.	As.	P.	Rs.	As.	P.
To Balance from last Report	...	...	170,800	0	0	170,589	13	10
„ Cash	...	...	18,000	0	0	17,564	4	9
Total Rs.			188,800 0 0			188,104 2 7		

FUNDS.*	PERMANENT.						TEMPORARY.						TOTAL COST.		
	Value.			Cost.			Value.			Cost.			Rs.	As.	P.
	Rs.	As.	P.	Rs.	As.	P.	Rs.	As.	P.	Rs.	As.	P.			
Asiatic Society	146,900	0	0	146,443	6	8	40,000	0	0	40,331	5	11	186,764	12	7
Trust Fund	1,400	0	0	1,339	6	0	...	...	...	...	...	...	1,339	6	0
	148,300	0	0	147,782	12	8	40,000	0	0	40,331	5	11	188,104	2	7

No. 4.

Account.

1902.

Cr.

					Rs. As. P.	Rs. As. P.
By Cash Receipts	...	...	...	...	...	10,515 14 9
„ Asiatic Society	..	..	..	..	217 0 6	
„ Oriental Publication Fund	..	..	..	..	9 8 0	
						<u>226 8 6</u>

By Balance.	Due to the Society.			Due by the Society.		
	Rs.	As.	P.	Rs.	As.	P.
Members ...	4,078	0	2	141	6	0
Employés ...	30	0	0	350	0	0
Miscellaneous	35	12	8	139	8	9
	<u>4,143</u>	<u>12</u>	<u>10</u>	<u>680</u>	<u>14</u>	<u>9</u>

... 3,512 14 1

Total Rs. ... 14,255 5 4

C. R. WILSON,
Honorary Secretary and Treasurer,
Asiatic Society of Bengal.

Examined and found correct.
MEUGENS, KING & SIMSON,
Auditors.

No. 3.

ment.

Cr.

					Value.	Cost.
					Rs. As. P.	Rs. As. P.
By Balance *	...	...	...	...	188,300 0 0	188,104 2 7
Total Rs.					<u>188,300 0 0</u>	<u>188,104 2 7</u>

C. R. WILSON,
Honorary Secretary and Treasurer,
Asiatic Society of Bengal.

Examined and found correct.
MEUGENS, KING & SIMSON,
Auditors.

1902..

STATEMENT
Trust

Dr.					
					Rs. As. P.
To Pension ...	...	...	...	...	4 0 0
„ Balance ...	...	...	...	...	1,885 11 10
Total Rs.					1,889 11 10

STATEMENT
Cash

Dr.					
					Rs. As. P.
To Balance from last Report ...	...	...	...	...	5,003 13 0
	RECEIPTS.				
To Asiatic Society ...	...	...	...	...	20,809 15 0
„ Oriental Publication Fund ...	...	...	...	...	9,702 6 8
„ Sanskrit Manuscript Fund ...	...	...	...	...	3,215 0 0
„ Personal Account ...	...	...	...	...	10,515 14 9
„ Trust Fund ...	...	...	...	...	90 0 0
Total Rs.					44,333 4 8
Total Rs.					49,337 1 8

STATEMENT
Balance

Dr.					
					Rs. As. P.
To Cash ...	...	...	...	...	5,857 3 8
„ Investments ...	...	...	...	...	188,104 2 7
„ Personal Account ...	...	...	...	...	3,512 14 1
Total Rs.					196,974 4 4
Total Rs.					196,974 4 4

No. 6.

Fund.

1902.

				Cr.		
				Rs. As. P.		
By Balance from last Report	1,299	11 10
„ Interest on Investments	90	0 0
Total Rs.				...	1,389	11 10

C. R. WILSON,
Honorary Secretary and Treasurer,
Asiatic Society of Bengal.

Examined and found correct.
MEUGENS, KING & SIMSON,
Auditors.

No. 7.

Account.

				Cr.		
				EXPENDITURE.		
				Rs. As. P.		
				Rs. As. P.		
By Asiatic Society	...	...	...	15,815	4	0
„ Oriental Publication Fund	...	...	...	8,424	14	4
„ Sanskrit Manuscript Fund	...	...	...	2,063	14	6
„ Personal Account	...	...	...	117	8	0
„ Investments	...	...	...	17,564	4	9
„ Trust Fund	...	...	...	4	0	0
Balance				...	...	...
Total Rs.				...	...	43,979 13 7
						5,357 3 8
						49,337 1 3

C. R. WILSON,
Honorary Secretary and Treasurer,
Asiatic Society of Bengal.

Examined and found correct.
MEUGENS, KING & SIMSON,
Auditors.

No. 8.

Sheet.

				Cr.		
				Rs. As. P.		
				Rs. As. P.		
By Asiatic Society	...	...	...	175,538	11	3
„ Oriental Publication Fund	...	...	...	11,535	15	7
„ Sanskrit Manuscript Fund	...	...	...	8,513	13	8
„ Trust Fund	...	...	...	1,385	11	10
Total Rs.				...	...	196,974 4 4
						196,974 4 4

C. R. WILSON,
Honorary Secretary and Treasurer,
Asiatic Society of Bengal.

Examined and found correct.
MEUGENS, KING & SIMSON,
Auditors.

LIBRARY.

THE following books have been added to the Library during the half year ended 30th June, 1903 :—

Abinas Chandra Das. *The Vaisya Caste, etc. Calcutta, 1903, etc.* 8°.

In progress.

Presd. by the Author.

Asutosh Mukhopadhyay. *The Law of Perpetuities in British India. Calcutta, 1902.* 8°.

Tagore Law Lectures, 1898.

Presd. by the Calcutta University.

Balgebond. *The Life of Raja Sir Shamsere Prakash, G.C.S.I., of Simour. [With a portrait.] Calcutta, 1901.* 8°.

Bamber (M. Kelway). *Report on Ceylon Tea Soils and their effects on the quality of tea. Calcutta, 1900.* 8°.

Blanford (W. T.) *Notes on Mr. W. M. Daly's Collection of Land and Fresh-water Mollusca from Siam. [London, 1903.]* 8°.

From the Proceedings of the Malacological Society.

Presd. by the Author.

Bower (A. G.) *The Family History of the Bansberia Raj. Edited by A. G. Bower. Calcutta, 1896.* 8°.

Presd. by Rajah Satindra Deb Rai Mahashaya.

British Museum. (*Natural History*). *Handbook of Instructions for Collectors, etc., London, 1902.* 8°.

———. *Report on the collections of Natural History made in the Antarctic Regions during the voyage of the "Southern Cross." London, 1902.* 8°.

———. *Guide to the Coral Gallery—Protozoa, Porifera or Sponges, Hydrozoa, and Anthozoa—in the...British Museum...With...illustrations. [London,] 1902.* 8°.

Presd. by the British Museum.

Browne (Edward G.) *A Literary History of Persia from the earliest times until Firdawsi. London, 1902.* 8°.

- Bühler ()** The Sukritasamkirtana of Arisimha. Translated...by E. K. Burgess, *etc.* Bombay, 1903. 4°. *Reprinted from the Indian Antiquary.* Presd. by Dr. J. Burgess.
- Busteed (H. E.)** Echoes from Old Calcutta: being chiefly reminiscences of the days of Warren Hastings, Francis and Impey... Third edition. Calcutta, 1897. 8°.
- Collett (Colonel Sir Henry).** Flora Simlensis. A handbook of the flowering plants of Simla and the neighbourhood...With an introduction by W. B. Hemsley...illustrations...and a map. London, 1902. 8°.
- Congrès International des Etudes d'Extrême-Orient.** Compte rendu analytique des séances. Hanoi, 1903. 4°. *Presd. by the Ecole Française d'Extrême-Orient. Saigon.*
- Cranenburgh (D. E.)** The Calcutta Municipal Act, being Ben. Act III of 1899, with a digest of rulings under the Repealed Act and a copious index. By D. E. Cranenburgh. Calcutta, 1900. 8°.
- Crawford (Lieut.-Col. D. G.)** A Brief History of the Hughli District. Calcutta, 1903. 4°. *Presd. by the Inspector-General of Civil Hospitals, Bengal.*
- Daljit Singh, Sirdar.** Srimad Edward Ráj Abhikhek. The Coronation of the Emperor Edward VII. A Gurmukhi poem set to music with an English translation. Lahore, 1902. 8°. *Presd. by the Author.*
- Ernest (R.)** Buddhism and Science.. Rangoon. [] 8°. *Presd. by the Author.*
- Ferrars (Max.) and (Bertha).** Burma...Second edition. London, 1901. 4°. *Presd. by the Government of Burma.*
- Finn (Frank).** How to know the Indian Ducks. Calcutta, 1901. 8°.
- Flasch (Adam).** Heinrich von Brunn. Gedächtnissrede, *etc.* München, 1902. 4°. *Presd. by the K. b. Akademie der Wissenschaften zu München.*
- The Gazetteer of Sikhim.** With an introduction by H. H. Risley. Edited in the Bengal Government Secretariat. Calcutta, 1894. 4°. *Presd. by the Government of Bengal.*

- Hill (S. C.)** The Life of Claud Martin, Major-General in the Army of the Honourable East India Company. *Calcutta*, 1901. 8°.
- Hirschfeld (Hartwig)** New Researches into the Composition and exegesis of the Qoran. *London*, 1902. 4°.
Asiatic Monographs, Vol. 3.
- Kâlidâsa.** The Raghuvançâ...Translated by P. De Lacy Johnstone. *London*, 1902. 8°. *Presd. by the Translator.*
- Kotô (B.) and Kanazawa (S.)** A Catalogue of the romanized geographical names of Korea. [*Tôkyô*, 1903.] 8°.
Presd. by the Tokyo Imperial University.
- Lingum Letchmajee.** An Introduction to the Grammar of the Kni or Kandh language... Second edition. Revised and corrected. *Calcutta*, 1902. 8°. *Presd. by the Government of Bengal.*
- Mukerji (S. C.)** A short account of the Sudramani Rajas...Revised by A. B. Wann...With illustrations by Major G. E. Weigall... With a note on the temple of Hamsesvari by P. C. Mookerji...Second edition. [*Calcutta*,] 1902. 8°.
Presd. by Rajah Satindra Deb Rui Mahashaya.
- Murdoch (John)** The Call of the Twentieth Century to Awakened India, etc. *Madras*, 1902. 8°.
- . Suggested Triad of Coronation boons to India...A letter, etc. *Madras*, 1903. 8°. *Presd. by the Author.*
- Nidhâmi-i-'Arûdi-i-Samarqandi.** The Chahâr Maqâla...Translated... by Edward G. Browne. *Hertford*, 1899. 8°.
Reprinted from the Journal of the Royal Asiatic Society.
- Nishikanta Chhattopâdhyâya.** Mricchakatikâ मृच्छकटिका...A Study *Mysore*, 1902. 8°.
- . Reminiscences of the late Justice Ranade. A lecture, etc. [*Mysore*, 1901.] 8°.
- . Some Reminiscences of Old England. A lecture, etc. [*Mysore*, 1902.] 8°.
- . The Study of History. A lecture, etc. [*Mysore*, 1902.] 8°.
- . The True Theosophist. A lecture, etc. [*Mysore*, 1892.] 8°.
Presd. by the Author.

Nitya Gopal Mukerji. Handbook of Indian Agriculture. *Calcutta*, 1901. 8°.

Ponder (C. F.) and Hooper (D.) An Introduction to Materia Medica for India, *etc.* *Calcutta*, 1901. 8°.

Praphulla Chandra Bāy. A History of Hindu Chemistry, *etc.* *Calcutta*, 1902, *etc.* 4°. *In progress.*

Ross (E. Denison) and Browne (Edward G.) Catalogue of two Collections of Persian and Arabic manuscripts preserved in the India Office Library. *London*, 1902. 8°. *Presd. by the Government of Bengal.*

Royal Asiatic Society. A Catalogue of South Indian Sanskrit Manuscripts—especially those of the Whish Collection—...Compiled by Dr. M. Winternitz...With an appendix by F. W. Thomas. *London*. 1902. 8°. *One of the "Asiatic Society Monographs."*

Sarat Chandra Das. A Tibetan-English Dictionary with Sanskrit Synonyms...Revised and Edited...By Graham Sandberg...and A. William Heyde. *Calcutta*, 1902. 4°. *Presd. by the Government of Bengal.*

Sarat Chandra Mitra. Note on the Sword-blade Vow and Bihāri Folk-tales of the "Man und Fuohs" Type. Two papers, *etc.* *Bombay*, 1902. 8°. *From the Journal of the Anthropological Society of Bombay.* *Presd. by the Author.*

Seward (A. C.) and Arber (E. A. N.) Les Nipadites des couches éocènes de la Belgique. *Bruzelles*, 1903. 4°. *Extrait des Mém. du Musée roy. d'Hist. Nat. de Belgique.* *Presd. by the Musée Royal d'Histoire Naturelle de Belgique.*

Sharpe (Wm.) The Dual Image. A Mystical poem of life. Revised edition. *London*, 1902. 8°. *Presd. by the Author.*

———. Ideal Gods, and other essays and poems, *etc.* *London*, 1900. 8°. *Presd. by the Author.*

- Teixeira (Pedro).** The Travels of Pedro Teixeira : with his "Kings of Harmuz" and extracts from his "Kings of Persia." Translated...by W. F. Sinclair...With introduction by D. Ferguson. *London*, 1902. 8°. *Works issued by the Hakluyt Society. Ser. II, No. 9.* *Presd. by the Government of India, Home Dept.*
- Tilly (Harry L.)** Glass Mosaics of Burma. With photographs. *Rangoon*, 1901. fol.
- U Gaung.** Translation of a Digest of the Burmese Buddhist Law concerning inheritance and marriages...Compared and arranged under the supervision of U Gaung, etc. Vol. I. Inheritance. *Rangoon*, 1902. 4°. *Presd. by the Government of Burma.*
- Vaughan (General Sir John L.)** A Grammar and Vocabulary of the Pushtû language...Second edition. *Calcutta*, 1901. 8°.
- Vidyaranya Swami, Sreemut.** A Handbook of Hindu Pantheism. The Panchadasi...Translated with copious annotations by Nandalal Dhole...Second edition. 2 vols. *Calcutta*, 1899, etc. 8°.
- Wilkins (W. J.)** Modern Hinduism : an account of the religion and life of the Hindus in Northern India. Second edition, *London*, [1900.] 8°.



PROCEEDINGS
OF THE
ASIATIC SOCIETY OF BENGAL.

EDITED BY
THE HONORARY SECRETARY.



JANUARY TO DECEMBER,
1904.

CALCUTTA :

PRINTED AT THE BAPTIST MISSION PRESS,

AND PUBLISHED BY THE

ASIATIC SOCIETY, 57, PARK STREET.

1905.

THE NEW YORK
PUBLIC LIBRARY
ASTOR LENOX AND
TILDEN FOUNDATIONS.
R 1909 L

CONTENTS.

	<i>Pages.</i>
Proceedings for January, 1904	1-4
Ditto „ February „ (including Annual Report) ...	5-32
Ditto „ March „	33-42
Ditto „ April „	43-46
Ditto „ May „	47-58
Ditto „ June „	59-62
Ditto „ July and August, 1904	63-68
Ditto „ November, 1904	69-78
Ditto „ December „	79-83
List of Members of the Asiatic Society on the 31st December, 1903 (Appendix to the Proceedings for February, 1904)	i-xiv
Abstract Statement of Receipts and Disbursements of the Asiatic Society for the year 1903 (Appendix to the Pro- ceedings for February, 1904)	xv-xxii

PROCEEDINGS
OF THE
ASIATIC SOCIETY OF BENGAL.
FOR JANUARY, 1904.

The Monthly General Meeting of the Society was held on Wednesday, the 6th January, 1904, at 9 P.M.

JOHN BATHGATE, Esq., in the chair.

The following members were present :—

Maulavi Abdul Wali, Mr. W. K. Dods, Babu Girindranath Dutt, Mr. D. Hooper, Kumar Ramessur Maliah, Dr. M. M. Masoom, Mr. W. H. Miles, Captain L. Rogers, I.M.S., Pandit Yogesa Chandra Sastree, Mahamahapadyaya Haraprasad Shastri, Pandit Satis Chandra Vidyabhusan, Mr. E. Vredenburg, and Dr. C. R. Wilson.

Visitors :—Mr. T. E. Corrie, Mr. F. M. Lane, Babu Ganga Mohan Laskar, and Capt. H. W. R. Simor.

The minutes of the last meeting were read and confirmed.

Forty-one presentations were announced.

Mr. Louis Stuart, Babu Harendra Krishna Mukerjee, Mr. V. H. Jackson, Pandit Gulab Shankar Dev Sarman, Babu Panna Lall, and Mr. R. P. Ashton, were balloted for and elected Ordinary Members.

The Chairman announced :—

1. That Mr. Abdur Rahim and Nawab M. M. Hosein Khan, elected Members of the Society on the 6th and 27th August 1903, respectively, not having paid their entrance fees, their elections have become null and void under rule 9.

2. That he had received only one essay in competition for the Elliott Prize for Scientific Research for 1903.

The General Secretary reported the presentation of 7 silver coins from the Government of United Provinces of Agra and Oudh, found in Jaunpur, Kheri and Fatehgarh Districts.

The following papers were read :—

1. *On the Antiquity and traditions of Shāhzādpur.*—By MAULAVI ABDUL WALI.

(Abstract.)

The author brings together all that is known of the traditions and ancient remains of Shāhzādpur, in the Sirājganj subdivision of the Pubna district, and thence attempts to reach the underlying substratum of fact.

Shāhzādpur has a small brick mosque of ancient construction with 28 black basalt columns and door jambs of the same probably taken from some Hindu temple. South of the mosque are more than twenty tombs including the shrines of Makhdūm Šāhib, the martyr, of Khwājah Kalān Danishmand, his nephew, and of the darvish Shāh Yusuf. There are also two large burying places of martyrs. A fair is held annually near the mosque in April and May. Bokhāra pigeons are found round the mosque and in the neighbouring villages.

The tradition is that Makhdūm Shāh was the son of a king of Yaman in Arabia. With a large following, including his sister, three nephews, and twelve darvishes, he set out on a religious expedition for the spread of Islam. At Bokhāra they were given a few khāki coloured pigeons. At length they arrived in ships at Bengal which was then mostly under water. The pigeons discovered land near Shāhzādpur and Makhdūm Shāh and his followers took possession of it. In the conflict which followed between them and the Hindu rajah of the country most of the Moslems were martyred. Supernatural signs led the rajah to repent. He accordingly buried the martyrs with due solemnity and built the mosque.

The author points out that the king of Yaman whom the tradition calls the father of Makhdūm Shāh was a contemporary of the Prophet. His descendants may have emigrated to Trans-Oxania or Bokhāra. Makhdūm Šāhib, a member of the family, may have been contemporary with Nizāmu-d-din Auliya, may have come to Bengal about the time of its conquest by Muḥammad-i-Bakht-Yar, and may have fought and died as the tradition says. As his ancestor was a Shāhzāda, the place of his death received the name of Shāhzādpur.

2. *The method of preparing Calendars and fixing festival dates by the Hindus.*—By GERINDRANATH DUTT, Superintendent, *Rāj Hatwā*.

(Abstract.)

This note has been prepared in response to a circular letter from Mr. E. A. Gait, Superintendent of Ethnography in Bengal, asking for information regarding the rules by which astrologers of all classes prepare calendars and fix the dates of festivals. The author explains the well-known differences between Siddhāntas and Karāṇas, between the pūrṇimānta system of Northern India and the amānta system of Southern India, and between the luni-solar year by which religious festivals are calculated and the solar-year which is the Bengali civil year. He gives formulæ according to the Karāṇas or practical works in use. He defines the principal Hindu festivals as reckoned by the lunar months. He contends that in the early Vedic age the new year was calculated from the sun's entering the Pleiades, and that the vernal equinox was at the Pleiades about B.C. 2500.

3. *Further notes on the Bhojpurī dialects spoken in Sāran and on the origin of Kaythī characters.*—By GERINDRANATH DUTT, Superintendent, *Rāj Hatwā*.

(Abstract.)

The author considers that the present Bōjpurī dialect is an admixture of the Kanañjiyā dialect and the Māgadhī dialect, the latter being the predominant element. He contrasts the Gaṇḍak and the Gōgrā valleys physically and linguistically. The Gōgrā valley is fertile and busy; men speak quickly and their words get clipped and shortened. The Gaṇḍak valley is sandy, unhealthy and backward. The population is dull and stagnant, and dialectical changes are fewer and slower.

The author would derive the Kaythī character mainly from Aśoka's Pāli character, so that in modern Kaythī we have in a veiled form the most ancient characters of India.

4. *The Khurda copper plate grant of Mādhava, king of Kalinga.* By GANGA MOHAN LASKAR, M.A., Government Research Scholar. Communicated by MAHAMAHOPADHYAYA HARAPRASAD SHASTRĪ.

(Abstract.)

This set of three copper plates comes from Khurda in Orissa and forms the second record ever discovered of king Mādhava and of the Śailodhava dynasty from which he is sprung; the only other known record of this dynasty is a copper plate charter of the same king

Mādhava, found in the Baguḍa village of the Goomsur tāluk in the Ganjam district. Dr. Keilhorn gives an account of the Baguḍa plate in the *Epigraphia India*, Vol. III., p. 40.

The new record consists of three plates strung together by a ring, the ends of which are secured in a seal. The seal contains in relief the figure of a bull and the words, "Srē Sainyabhētasya" (*i.e.*, of the glorious Sainyabhēta.) All the plates are inscribed, the middle one on sides. The engraving is deep and legible.

The character of writing indicates that these plates cannot be later than the latter half of the seventh century. The plates enable us to revise the genealogy of the dynasty which stands thus :—

1. Sailodbhara, the founder.
2. Raṛabhīta, descended from 1.
3. Sainyabhīta I, son of 2.
4. Yaśobhīta I, descended from 3.
5. Sainyabhīta II, son of 4.
6. Yaśobhīta II, son of 5.
7. Mādhavarāya, Mādhavendra, or Mādhava Varman, son of 6.



PROCEEDINGS
OF THE
ASIATIC SOCIETY OF BENGAL.
FOR FEBRUARY, 1904.

The Annual Meeting of the Society was held on Wednesday, the 3rd February, 1904, at 9-45 P.M.

H. H. RISLEY, Esq., B.A., C.I.E., I.C.S., Vice-President, in the chair.

The following members were present:—

Syed Abdul Alim, Mr. J. Bathgate, Babu Monmohan Chakravarti, Mr. W. K. Dods, Mr. F. Doxey, Mr. J. N. Das Gupta, Mr. T. H. Holland, Mr. D. Hooper, Mr. V. H. Jackson, Mr. C. Little, Mr. J. Macfarlane, Dr. M. M. Masoon, Mr. W. H. Miles, Mr. L. Morshead, Hon. Dr. Asutosh Mukhopadhyaya, Mr. J. D. Nimmo, Mr. W. Parsons, H.H. The Maharaja Girja Nath Rai, Dr. E. D. Ross, Pandit Yogesa Chandra Sastree, Mahamahopadhyaya Haraprasad Shastri, Mr. A Tocher, Babu Nagendra Nath Basu, Pandit Satis Chandra Vidyabhushan.

Visitors:—Mr. E. C. Cotes, Mr. B. A. Gupta, Mrs. D. Hooper, Mrs. and Miss McMaster, Captain H. W. R. Senior.

According to the Rules of the Society, the Chairman ordered the voting papers to be distributed for the election of Officers and Members of Council for 1904 and appointed Messrs. W. K. Dods and V. H. Jackson to be Scrutineers.

The Chairman then called upon the Secretary to read the Annual Report.

ANNUAL REPORT FOR 1903.

The Council of the Society have the honour to submit the following Report on the state of the Society's affairs during the year ending 31st December, 1903.

Member List.

During the year under review 19 Ordinary Members were elected, 10 withdrew, 4 died, 3 were removed from the list under Rule 40, being more than 3 years absent from India, and 2 were struck off under Rule 9, not having paid their admission fees. The name of one member was replaced as he withdrew his letter of resignation under Rule 34. The total number of members at the close of 1903 was thus 335 against 334 at the preceding year; of these 127 were Resident, 126 Non-Resident, 15 Foreign, 21 Life, 45 Absent from India, and 1 Special Non-Subscribing Member, as will be seen from the following table which also shows the fluctuations in the number of Ordinary Members during the past six years:—

YEAR.	PAYING.				NON-PAYING.				GRAND TOTAL.
	Resident.	Non-Resident.	Foreign.	Total.	Life.	Absent.	Special Non-Subscribing.	Total.	
1898	123	108	11	241	23	35	1	59	300
1899	120	119	13	252	21	27	1	49	301
1900	116	124	18	258	22	30	1	53	311
1901	123	133	13	269	22	36	1	59	328
1902	126	126	14	266	21	43	1	65	334
1903	127	126	15	268	21	45	1	67	335

The four Ordinary Members the loss of whom by death during the year we have to regret, were Mr. M. N. Chatterji, Mr. W. B. Colville, Mr. W. Connan and Babu Ram Din Singh.

There were two deaths amongst the Honorary Members, *viz.*, Professor E. B. Cowell and Sir George Stokes, Bart.

The List of Special Honorary Centenary Members, Corresponding Members and Associate Members, continue unaltered from last year, there having been no casualties: their numbers stand at 4, 1, and 13, respectively.

No members compounded for their subscription during the year.

Indian Museum.

No presentations were made over to the Indian Museum.

The Trustees on behalf of the Society were :—

The Hon. Mr. A. Pedler, C.I.E., F.R.S.

Dr. Mahendralal Sarcar, C.I.E., D.L.

G. W. Kuchler, Esq., M.A.

T. H. Holland, Esq., F.G.S., A.R.C.S.

The Hon. Sir J. A. Bourdillon, K.C.S.I.

Finance.

The Accounts of the Society are shown in the Appendix under the usual heads.

Statement No. 8 contains the Balance Sheet of the Society, and of the different funds administered through it.

The financial position of the Society show a steady increase and the credit balance at the close of the year amounts Rs. 1,81,826-9-6, which is over six thousand rupees better than last year.

The Budget for 1903 was estimated at the following figures :—

Receipts Rs. 18,500 ; Expenditure Rs. 22,449-4 (Ordinary Rs. 16,949-4, Extraordinary Rs. 5,500).

Taking into account only the ordinary items of receipts and expenditure for the year 1903, the actual results have been :—Receipts Rs. 20,313-9-6. Expenditure Rs. 11,966-10-3, showing a balance in favour of the Society on its ordinary working of Rs. 8,346-15-3. Against this balance there has been several extraordinary items of expenditure amounting to Rs. 4,593-7-6. Notwithstanding this extraordinary expenditure there is still a saving of Rs. 3,753-7-9 during the year. In addition to this, a sum of Rs. 544 has been added to the Reserve Fund on account of entrance fees paid during the year.

There is an increase in receipts under every head except "Rent of Rooms" and this is due to the non-receipt of rent from the Photographic Society of India for one month, which has been received in 1904.

The ordinary expenditure was estimated at Rs. 16,949-4, but the amount paid out was only Rs. 11,966-10-3. The principal items in excess were "Lighting," "Meetings," and "Contingencies." "Lighting" was estimated at Rs. 100, while the actuals were Rs. 261-4. This increase is chiefly due to the payment of bills for electric lights and fans. Owing to expenses incurred in connection with two Scientific Lectures given in the Society's rooms, there is an increase of Rs. 54-3 under the head "Meetings."

The increase of Rs. 240-0-4 for Contingencies is due to various

sundry items of expenditure, *viz.*, for illuminating the Society's premises on the occasion of the Coronation celebration in Calcutta. There is a very slight increase under the heads "Freight" and "Proceedings."

The actual expenditure on the Journal was as follows:—

		Rs.	As.	P.
Journal	{ Part I	...	...	636 4 6
	{ Part II	...	...	878 8 3
	{ Part III	...	...	228 5 6
Total ...				Rs. 1,743 2 3

against a budget provision of Rs. 6,200. This is less than the Budget estimate by Rs. 4,456-13-9, but it must be mentioned that several bills for printing the Journal have not yet been paid owing to an extra charge under the head "Alterations," which the Superintendent of the Baptist Mission Press has been asked to explain. Against these bills, a sum of Rs. 3,642-2 has been paid as "advance," which together with the actual expenditure on the three parts of the Journal amounts to Rs. 5,385-4-3.

There were three extraordinary items of expenditure during 1903 under the heads of "Royal Society's Catalogue," "Type-Writer and Duplicator," and "Max Müller Memorial Fund" not provided for in the Budget. The expenditure on the Royal Society's Catalogue has been Rs. 618-14-6, while the receipts under this head from subscription on behalf of the Central Bureau has been Rs. 1,647-11, which sum will be remitted during the current year. Rs. 532-8 has been spent for a Type-Writer and a Duplicator for the Society's office, and a sum of Rs. 669-10 has been remitted to the Secretary, Max Müller Memorial Fund. This amount was collected by the Society in aid of the fund.

Out of the sum of Rs. 1,000 budgetted for the Society's Library Catalogue, only Rs. 358-7 has been spent towards the salary of the assistant engaged in revising the Library Catalogue and other expenses incurred in connection therewith.

The Budget Estimate of probable Receipts and Disbursements for 1904 has been fixed as follows:—Receipts Rs. 17,700, Expenditure Rs. 17,254-4.

On the Receipt side, the estimated income under the head of "Interest on Investments" is based upon the actuals of the last year. "Rent of Rooms" has been decreased by Rs. 1,125 as the Photographic Society of India, owing to insufficiency of accommodation, have decided to vacate the rooms rented to them by the end of February 1904.

On the Expenditure side, the items of "Freight" and "Meetings" have been slightly increased. Lighting has been increased by Rs. 220

owing to electric lights and fans, and the item of Contingencies is based upon the actuals of the past three years. Other heads remain unaffected.

There will, however, be four Extraordinary items of expenditure to be dealt with during the year 1904. Rs. 1,000 has been budgetted for Library Catalogue to meet expenses that may be incurred during the year. Mr. A. E. Caddy has been entrusted with cleaning and varnishing the Society's pictures at a fee of Rs. 1,000, and he has received Rs. 500 as "advance." It is further under the consideration of the Council to reline and repair certain pictures, and Mr. Caddy is willing to carry out the work at a fee of not more than Rs. 800. A sum of Rs. 1,800 has been allotted for these purposes. The Council have ordered out from London oak gilt frames for the Society's pictures at an estimated cost of Rs. 8,000, and to pay off Messrs. Martin and Co. for renewing the floor of the entrance of the Society's premises. Their dues amount to a sum of Rs. 2,320.

BUDGET ESTIMATE FOR 1904.

Receipts.

	1903.			1903.			1904.		
	Estimate.			Actuals.			Estimate.		
	Rs.	As.	P.	Rs.	As.	P.	Rs.	As.	P.
Subscriptions ...	7,500	0	0	7,901	8	0	7,500	0	0
Sale of Publications ...	600	0	0	1,316	6	0	600	0	0
Interest on Investments	5,800	0	0	6,541	8	0	6,000	0	0
Rent of Rooms ...	1,500	0	0	1,375	0	0	500	0	0
Government Allowances	3,000	0	0	3,000	0	0	3,000	0	0
Miscellaneous ...	100	0	0	179	3	6	100	0	0
Total ...	18,500	0	0	20,318	9	6	17,700	0	0

Expenditure.

	Rs.	As.	P.	Rs.	As.	P.	Rs.	As.	P.
Salaries ...	3,800	0	0	3,577	7	4	3,800	0	0
Commission ...	425	0	0	406	15	0	425	0	0
Stationery ...	120	0	0	98	8	0	120	0	0
Lighting ...	100	0	0	261	4	0	320	0	0
Municipal Taxes ...	884	4	0	884	4	0	884	4	0
Postage ...	500	0	0	420	2	0	500	0	0
Freight ...	60	0	0	65	10	9	75	0	0
Meetings ...	80	0	0	134	3	0	100	0	0
Contingencies ...	400	0	0	640	0	4	500	0	0
Books ...	2,000	0	0	1,813	13	7	2,000	0	0
Binding ...	750	0	0	390	0	0	700	0	0
Journal, Part I. ...	2,100	0	0	636	4	6	2,100	0	0
" " II ...	2,100	0	0	878	8	3	2,100	0	0
" " III ...	2,000	0	0	228	5	6	2,000	0	0
Proceedings ...	600	0	0	647	9	0	600	0	0
Printing circulars, &c. ...	200	0	0	153	11	0	200	0	0
Registration Fee ...	5	0	0	5	0	0	5	0	0
Auditor's Fee ...	100	0	0	100	0	0	100	0	0
Petty Repairs ...	100	0	0	.....			100	0	0
Insurance ...	625	0	0	625	0	0	625	0	0
Total ...	16,949	4	0	11,966	10	3	17,254	4	0

Extraordinary Expenditure.

	1903.			1903.			1904.		
	Estimate.	Rs.	As.	Actuals.	Rs.	As.	Estimate.	Rs.	As.
	Rs.	As.	P.	Rs.	As.	P.	Rs.	As.	P.
Library Catalogue ...	1,000	0	0	358	7	0	1,000	0	0
Royal Society's Catalogue	.....			618	14	6	.....	
Max Müller Memorial Fund	.....			669	10	0	.....	
Electric Lights and Fans	2,500	0	0	2,414	0	0	.....	
Books ...	2,000	0	0	.....			.....
Type-writer and Duplicator	.....			532	8	0	.....	
Cleaning, Varnishing and Relining Pictures	.....			.....			1,800	0	0
Picture Frames	.....			.....			3,000	0	0
Repairs	.....			.....			2,320	0	0
Total ...	5,500	0	0	4,593	7	6	8,120	0	0

Agencies.

Our London Agency is still in the hands of Messrs. Luzac & Co. Owing to the death of Mr. C. G. Luzac and the unsettled condition of the firm, we will probably have to change their London Agency. They have submitted a statement of sales during 1902 and 1903. The value of the publications sent to them during the year amounts to £75-4-6 representing 702 copies of the various issues of the *Journal* and the *Proceedings*, and Rs. 415-12-0 representing 723 fasciculi of the *Bibliotheca Indica*. The proceeds of the sale of the *Journal* and the *Proceedings* and of the *Bibliotheca Indica* during 1902 and 1903 were £17-16-6 and Rs. 53-14-0, respectively. From them we have received books and papers of the value of £23-5-5.

Our Continental Agent is Mr. Otto Harrassowitz, to whom we have sent publications valued at £32-6-6 and Rs. 368-14-0, of which £29-9-4 and Rs. 356-11-10 worth have been sold for us. From him we have received periodicals of the value of £1-5-6.

Library.

The total number of volumes or parts of volumes added to the Library during the year was 2,426, of which 685 were purchased and 1,741 presented or received in exchange for the Society's publications.

In remodelling the new edition of the Society's Library Catalogue, the titles of numerous books had to be revised and as the number of slips prepared were too many to be inserted in the manuscript catalogue compiled by Mr. H. B. Perie, it has been found necessary to cut up the whole of the manuscript catalogue in order to arrange it for press. The work is close upon completion, and the manuscripts will be sent to press very shortly.

During the year there were several Meetings of the Library Committee relative to the proposed rejection of books from the Society's library. A number of books have been set aside, and the Council have decided to circulate a list of these among those members of Council who are not members of the Library Committee for their consideration, after which the lists will be laid before a General Meeting. Meanwhile these books are kept apart for inspection.

As an experiment, the Council have allowed the Imperial Library to borrow books from the Society for the use of its readers for three months. During the period from 28th October 1903, to 27th January 1904 only 4 works have been thus borrowed.

On the recommendation of the two Philological Secretaries, Babu Mahendra Nath Mukerjee was appointed Pandit for the Oriental Library in the place of Babu Charu Chandra Bhattacharya, resigned.

International Catalogue of Scientific Literature.

During the year 1903, Index-slips to the number of 624 were sent to the Director of the Catalogue.

With the exception of the volume of Zoology (which has not yet been published), and the second part of Botany (expected shortly), the whole of the first annual issue of the Catalogue has been distributed to subscribers; of the second annual issue the volume of Astronomy has already been distributed, and that of Bacteriology is expected shortly.

In addition to the subscriptions mentioned in the last year's report the Governments of Bombay and Madras have remitted direct to London their subscriptions for sets and separate volumes of the first annual issue.

A sum of Rs. 1,647-11 representing the subscriptions of:—The Dewan of Mysore (for two sets), The Bombay University and the Native General Library, Bombay, The State Council, Jammu, Kashmir (one set.), and the Government of India (Home Department) for the volumes actually supplied, and part subscriptions from the Librarian, Imperial Library, has been received.

Max Müller Memorial Fund.

From the sum of Rs. 716 collected by the Society in aid of the Max Müller Memorial Fund, Rs. 46-6 has been deducted for sundry expenses incurred by the Society, and the balance Rs. 669-10 has been remitted to Prof. A. A. Macdonell, Secretary to the Max Müller Memorial Fund. The thanks of the Executive Committee have been received for the amount.

Barclay Memorial Medal.

During 1903, the Council of the Society awarded the Barclay Memorial Medal to Major Ronald Ross (I.M.S., retired) in recognition of his work in the investigation of the transmission of Malaria by the mosquito.

Proposed Search for Persian and Arabic MSS.

The Society has made a representation to the Government of India, Home Department, showing the present position of the agency set up by Government in connection with the Society for the publication of Oriental Works and the search for and cataloguing of Oriental Manuscripts, and further suggesting for the consideration of Government whether a systematic search for Manuscripts of Persian and Arabic works might not suitably be instituted similar to the search for Sanskrit Manuscripts which has long been conducted in Bengal by the Society on behalf of Government.

Society's Premises and Property.

The Society's rooms have been fitted with electric lights and fans by Messrs. Kilburn & Co. at a total cost of Rs. 2,354, and the much needed improvement to the floor of the entrance of the Society's premises has been carried out with patent stone and marble by Messrs. Martin & Co. at a cost of Rs. 2,320.

On a report by Mr. E. B. Havell on the pictures of the Society, the Council entrusted Mr. A. E. Caddy with the work of cleaning and varnishing the pictures and backing them with Willesden canvas at a fee of Rs. 1,000. The work has well advanced and Mr. Caddy has received Rs. 500 on account. There are several pictures that require relining and repairs to damaged parts, and for this there will be an additional expenditure of about Rs. 800, which is under the consideration of the Council.

It has been decided to bring out from London oak gilt frames for the Society's pictures, and Messrs. Smith and Uppard have been asked to supply them, the estimated cost being between £150 and £200.

Exchange of Publications.

During the past year the Council accepted four applications for exchange of publications, viz:—(1) from the Cambridge Philosophical Society, the Society's *Journal*, Parts I-III and *Proceedings* for their *Proceedings*; (2) from the Royal Colonial Institute, London, the Society's *Journal*, Parts I-III and *Proceedings*, being exchanged for their *Journal*; (3) from the Servicio Meteorologico del Estado de Mexico, the Society's *Journal*, Part II, and *Proceedings* for their *Boletin*; (4) from Count F. L. Pullé, the Society's *Journal*, Parts I-III and *Proceedings* being exchanged for his *Studi Italiani di Filologia Indo-iranica*.

Secretaries and Treasurer.

Dr. E. D. Ross carried on the duties of Philological Secretary and Editor of the *Journal*, Part I till April, when Dr. T. Bloch returned from leave and took charge of the work. Dr. Bloch continued till November when he was absent on tour, and Dr. Ross kindly consented to undertake the work in addition to his own duties as Anthropological Secretary, Dr. Bloch retaining the Editorship of the *Journal*.

Captain L. Rogers, I.M.S., continued Natural History Secretary and Editor of the *Journal*, Part II till February, when he left India on furlough and Mr. E. P. Stebbing was appointed to officiate for him. Mr. Stebbing left India on the furlough in November, and on the return of Captain Rogers in December, the latter took charge of the work.

Mr. E. A. Gait continued Anthropological Secretary and Editor of *Journal, Part III*, till August, when he left India on leave and Mr. E. H. Walsh, I.C.S., was appointed to officiate for him. Mr. Walsh carried on the work till November, when he left Calcutta and Dr. Ross was permanently appointed.

Dr. C. R. Wilson continued Treasurer till April, when he left India on leave and the Hon. Dr. Asutosh Mukhopadhyaya was appointed to officiate for him. The Hon. Dr. Mukhopadhyaya left Calcutta temporarily in September, and Mr. J. Macfarlane carried on the work till October when Dr. Wilson returned and took charge of the office.

Mr. J. Macfarlane continued General Secretary and Editor of the *Proceedings* throughout the year.

Mahāmahopādhyāya Haraprasād Shāstri was in charge of the Bibliotheca Indica and the Search for Sanskrit Manuscripts, and carried on the duties of the Joint Philological Secretary throughout the year.

Mr. J. H. Elliott continued Assistant Secretary and Librarian throughout the year.

Publications.

There were published during the year nine numbers of the *Proceedings* (Nos. 10 and 11 of 1902 and Nos. 1-8 of 1903) containing 148 pages of letter-press and 1 plate.

Of the *Journal, Part I*, three numbers were published (No. 2 and Extra No. 2 of 1902 and No. 1 of 1903) containing 219 pages of letter-press and 1 plate. The Extra No. 2 of 1902 consists of Professor E. B. Cowell's Translation of the Three Episodes from the Old Bengali Poem "Caṇḍi." Indexes for 1899, 1901 and 1902 were also published. During 1902, the Council authorised the addition of a Supplement to the three parts of the *Journal*. No Supplement to *Journal, Part I*, was published. It has now been decided to publish short notes on numismatic questions, with illustrations, as a Supplement to *Journal, Part I*, and the Editorship has been entrusted to Mr. H. Nelson Wright, I.C.S.

Of the *Journal, Part II*, three numbers were published (No. 1-3 of 1903) containing 111 pages of letter-press and 6 plates. There was also published the Index for 1902.

Of the *Journal, Part III*, two numbers were published (Nos. 1-2 of 1903) containing 106 pages of letter-press. There were also published the Indexes for 1894-1898, 1899-1901 and 1902. In reply to the representation submitted by the Society in connection with the grant of Rs. 1,000 per year for *Journal, Part III*, from the Assam Administration, the Honourable the Chief Commissioner of Assam has decided to continue the annual grant to the Society for the collection of Anthropological and Ethnographical information in Assam pending further orders. The

Council have established a Depôt for the registration and storage of Anthropological Photographs in India at the Society's rooms similar to that which the British Association for the Advancement of Science has adopted in England. The circular issued by the British Association, with a note on the subject, is issued as a leaflet in the Society's Journal, Part III, No. 2 for 1903 and subsequent issues.

Proceedings.

The most interesting paper in the Proceedings is Babu Girindra Nāth Dutt's History of Hatwa Raj, tracing the descent of the present Rājā from Virasena, the great conqueror of southern India before the Christian era. The family flourished under the Moghal rule and came under the British rule in 1765 on the assumption of the Dewani of Suba Bangla by the East India Company. The discovery of the Sarāk caste of weavers in the district of Cuttack professing a sort of Buddhist creed throws some light on the process by which Buddhism gradually retired from the plains and is still hiding itself in retired nooks and corners of Eastern India. On this subject two papers were read: the one by Satisa Candra Ācāryya has been published. The discussion of the origin of the caste system produced some interesting papers. Pandit Satisa Candra Ācāryya attempted to prove that the ancients considered foreigners to be Vrātyas, *i.e.*, fallen from the original four castes. Pandit Yogesa Candra Sāstri wrote a paper on the origin of the Kāp section of the Vārendra class of Brāhmins of Bengal which throws new light on the question. Babu Hari Mohan Sinha wrote a paper on the Koch people in Northern India. Mr. O'Mally's paper on Gayā Srādh is very interesting as showing what part demonworship still plays in Hindu rituals. The Orāḥns in Chota Nagpur are an interesting non-Aryan people, and their religion and superstition have been made the subject of an interesting paper by Rev. F. Hahn. He gives the number of totemistic septs and the taboo attached to each among this people.

Babu Monmohan Chakravati's paper on the Eastern Ganga Kings gives a list of fourteen kings from Choḍa Ganga, Saka 998, to Nrisimha Deva IV of Orissa, Saka 1346. M. M. Haraprasad Sāstri's paper identifies Rāmgarh in the Sarguja State with the Rāma Giri hill, the starting point of the cloud in Kalidasa's Meghadūta, and if his interpretation of the Asoka character inscriptions there be correct, it would be interesting to note that even secular subjects formed the objects of these inscriptions.

Journal, Part I.

Three numbers have been published during the last year, *viz.*, No. 2 of Vol. LXXI, No. 1 of Vol. LXXII, and Extra No. 2 of

Vol. LXXI. No. 2 of the Journal for 1903 is almost ready for issue.

The extra number is devoted to translations of extracts from the Bengali poem *Caṇḍi*, by our late lamented Honorary Member, Professor E. B. Cowell of Cambridge. The poem was composed by Mukunda Rām Cakravartī, who lived during the latter half of the sixteenth and the early part of the seventeenth century, and seems to have passed his life in the districts of Burdwan and Midnapur. It is 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, and it is this vivid realism which gives such a permanent value to the descriptions.

The papers published in the other numbers of Journal Part I mostly deal with historical and linguistic matters. First of all, there is a valuable account by Professor C. Bendall of the history of Nepal and surrounding kingdoms from 1000-1600 A. D. It is based on materials collected by Professor Bendall during his last journey to Nepal, which he undertook in the cold weather of 1898-99, in the company of our Joint Philological Secretary, Mahāmahopādhyāya Hara Prasād Shāstri, and it will be reprinted as an introduction to the joint report on their discoveries, to which we may look forward at an early date. Professor Bendall collected a great number of colophons of MSS. furnishing historical dates, and by the help of these as well as by the native chronicles in the Mahārāja's library, especially a palm-leaf MS. of a *Vaṃpāvali* he put together a very detailed record of the chronology of the kings, that ruled over Nepal and adjacent countries from 1000 to 1600 A. D. Babu Monmohan Chakravartī has done the same for the Eastern Ganga kings of Kalinga, who ruled over Orissa from the 12th century A. D. His materials generally consist in dated temple-inscriptions, of which many are to be found in Orissa as well as in the country south of it, now included in the Madras Presidency. The history of Western Bundelkhand has been described in an article by Mr. C. A. Silberrad, I.C.S. It gives an English translation of a modern vernacular history, written by Diwan Bijhe Bahadur Mázbut Singh, which is valuable on account of the many local traditions to which it refers.

As regards Muhammadan History in India, Mr. W. Irvine, late of the Civil Service, has given us a further contribution on the Later Mughals, dealing with the events during Farrukhsiyar's reign from March, 1713, to April 21st, 1716; while Dr. Ross has published an account of Faqir Khair-ud-din Muḥammad, the historian of Shāh 'Alam.

The history of the Licchavis of Vaisali forms the subject of an article by Paṇḍit Satīsa Candra Vidyābhūṣaṇa. The author's theory

that the Licchavis were foreigners, coming from Nisibis, is, to say the least, startling. The same author also contributed a paper on the Mixed Castes, mentioned in the Sanskrit Law Books, in which he discussed the Ethnological meaning and probable derivation of all those caste names.

Chirand, a place of archæological interest in the district of Saran, which Dr. Hoey recently tried to identify with Vaisali, has been described in a note by Babu Nundo Lal Dey. Mr. Edward O'Brien, Deputy Commissioner of Kangra, contributed a grammar of the modern vernacular of the Kangra valley, with a glossary of words peculiar to that dialect.

Finally, as regards Tibet, we have ready for immediate issue two articles by Mr. E. H. C. Walsh, I.C.S. One deals with the Tibetan Dictionary by Rai Sarat Chandra Das Bahadur. The value of the work, as a Dictionary of the literary language, according to Mr. Walsh is of a high standard, but it misses at the same time the necessary completeness as regards the colloquial language, and he suggests the compilation of a purely colloquial Dictionary. The other article gives an interesting list of Tibetan books, collected by a Japanese Buddhist scholar in Tibet.

Journal, Part II.

During the last year three numbers of Part II of the Journal have been issued containing a number of interesting papers. The Zoological side has been well represented by papers on the Aleurodidae, a family of insects closely allied to the scale insects and very common in India, by Mr. H. W. Peal, illustrated by five plates each containing numerous figures, together with two other shorter papers by the same author. The papers of interest by Mr. E. P. Stebbing illustrated by a plate relate to a beetle (*Thanasimus*) which appears to be an active agent in destroying certain insects which damage forest trees, and on a parasitic insect of the spruce firs, while Captain H. J. Walton contributes a note on the occurrence of rare birds near Calcutta.

The botanical papers include a description of some new Scrophularinæ by Major D. Prain. Among the papers on general subjects is an interesting communication on two rain-bursts in Bengal by Mr. C. Little, and one on an ancient Eastern Medicine by Mr. D. Hooper, while Dr. P. C. Ray contributes two articles on some mercury salts.

Journal, Part III.

Two numbers of this Part were issued during the year, comprising 106 pages. There were nine separate papers, and with each number were issued a Supplement. This last is an innovation suggested by

Mr. Gait; it has proved successful and a number of interesting notes were received from various quarters.

Among the papers published we may mention one on the *Gayā Ārādha and Gayāvāls*, by Mr. L. S. S. O'Malley. The *Gayā Ārādha* is a special form of orthodox Hinduism practiced in *Gayā* by a priestly caste, whose origin it is difficult to trace, called the *Gayāvāls*. These priests though almost entirely illiterate claim a very high position among *Brahmanas* and are treated with great respect and reverence. Their numbers are rapidly dwindling, and to-day there remain less than 300 pure *Gayāvāls*. Another paper was contributed by the Rev. F. Hahn on the Religious Superstitions of the *Orās*, which contains curious details of spirit worship and exorcism.

Mr. D. Sunder, Commissioner in the *Sundarbāns*, published a paper on the charms and exorcism which are considered efficacious in that district for the dispersion and destruction of noxious animals. The wood-cutters who frequent the *Sundarbāns* forests between the month of October and May never proceed to the jungle, we are told, without their *faqir*, who is supposed to possess the power to drive away the tigers. Mr. Sunder gives a translation of the various incantations employed by these *faqirs*.

Among the contributors of Notes to the Supplement were Major P. R. T. Gurdon; Mr. H. F. Howard, Mr. Gait, Mr. C. T. Stevenson-Moore, Babu Harimohana Simha and others.

Coins.

Thirty-eight coins were presented to the Society by the Bombay Branch of the Royal Asiatic Society, the Government of the United Provinces of Agra and Oudh, and by Babu Rāmpada Chatterji, a Sub-Deputy Collector at Kishenganj, Purnea. Of these 5 are gold, 31 silver, and 2 copper coins. Among the gold coins there are two of Egyptian Kings, of A.D., 1439 and 1447, found at Aden—one of the Mamlūk Sultāns, found in the District of Ahmadabad, and a padma-ṭaṅka. The silver coins belong to the Moghul Emperors. One is a coin struck by the East India Company in the name of Shāhjahān II, at Bombay (Mumbai), and there are also several rupees of the Company from the Benares Mint. The copper coins belong to Aḥmad Shāh I, of Guzerat, and to Aḥmad Shāh II of the Bahmani Dynasty.

With reference to the proposed amalgamation of the two collections of coins now held separately by the Indian Museum and the Asiatic Society of Bengal, the Council resolved not to sell the Society's collection of old coins but to lend to the Trustees of the Indian Museum so many of the Society's coins as they may require for an indefinite period

to be utilized with the collection of old coins at the Museum, and the coins lent should be permanently marked for future identification with the letters A.S.B. with which other objects lent by the Society have been marked so as to be distinguishable, and when that has been done the coins should be merged for purposes of classification and exhibition with the Museum coins.

Bibliotheca Indica.

The Bibliotheca publication showed, during the year under review rather unusual activity. Thirty-five fasciculi were published, of which three were in the Arabic-Persian series, thirty-two in Sanskrit and none in Tibetan series. Twenty-three works were under publication. Of the thirty-two Sanskrit fasciculi, three related to Sanskrit grammar, five to Hindu Philosophy, three to the Vedas, one to the Kalpasūtras, fifteen to the Sanskrit law and ritual, one to Purāṇa, two to Buddhist Philosophy and two to Jaina Sanskrit. The three fasciculi in the Arabic Persian series are all English translations of historical works in Persian. Of the thirty-two Sanskrit fasciculi three only are English translations, one of a Purāṇa and two of a very difficult philosophical work, the rest, editions of Sanskrit works.

The cost of printing those fasciculi amounted to Rs. 4,416-10-0. The editing fees amounted to Rs. 4,748-8-0, giving an average of Rs. 262-0-0 per fasciculus. Seven new works were undertaken during the course of the year.

1-2. The Dānakriya Kaumudi Fasc 1-2 and Srāddhakriya Kaumudi Fasc 1-3 are really continuations of the Varṣa Kriyā Kaumudi or simply Kriyā kaumudi by the great compiler of Smṛti in Western Bengal named Govindānanda Kavikaṅkaṅcāryya, who flourished by the middle of the sixteenth century and preceded Raghunandana by a generation. The work of editing has been entrusted to a young Smṛti scholar of Bhāṭpāra, Paṇḍit Kamala Kṛṣṇa Kāvya-tirthā who seems to know his work well.

3. Vidhānā Pārijāta is a digest of civil and religions duties according to the Hindu Sāstras. It was compiled in 1625 A.D. by Ananta Bhaṭṭa, son of Nāga Bhaṭṭa and grandson of Jahnu Bhaṭṭa at Benares. The family professed the Kāṇva Sākhā of the White Yayur Veda. It has five chapters called Stavakas dealing with Srāddha-Vyavathāra and Prāyasaitta. The publication of the work has been entrusted to Paṇḍit Tārāprasanna Vidyaratna, one of the Professors of Sanskrit grammar in the Sanskrit College, Calcutta.

4. Satādūṣaṇi is a work by Veṅkatānātha, the founder of the Y mark section of the Rāmānuja sect in Southern India. It purports to find one hundred objections to Saṅkara's nondual theory. It has a

commentary by Rāmānuja Dāsa, a disciple of Bādhūla Śrīnivāsa. It is the standard work of a very large and influential section of the Hindus in Madras. Paṇḍit Seṣādri Ayer, the late personal assistant to the Director of Public Instruction, Madras, was entrusted with the edition of the Text with the Commentary. On his death, however, the editorship was transferred to the then Hon'ble P. Ānanda Cārṇu, Visārada, Ray Bahadur, member of the Imperial Council for Madras. One fasciculus only of this work came out during the year under review but a good many sheets have since then been printed.

5. Tattvārthādhigamasūtra is a Jaina work professing to be a part of the teachings of Bardhamāna, the founder of the sect. It was put in the sūtra form by the great Jaina teacher Umāsvāti-vācaka with a commentary of his own. Umāsvāti is revered both by the Śvetāmbaras and Digambaras and is said to have flourished before the Christian era. The edition of the work has been entrusted to a young Jaina scholar of Ahmedabad, Mody Keṣavalāl Premcānd, a B.A. of the Bombay University. His work has been placed under the supervision of Professor Dr. Hermann Jacobi of the University of Bonn.

6. Nityācāraprādīpa by Narasiṃha Vājapeyi is to be differentiated from the Nityācārapaddhati by Vidyākara Vajapeyi which has just been finished in this series. One appears to be a supplement to the other, and both these form the standard compilation in Orissa on Smṛti. The edition has been entrusted to Paṇḍit Vinoda Vihāri Kāvya-tirtha who has just completed the other work.

7. Tantravārtika in Prose is a commentary on the Savarabhāṣya on the Mīmāṃsa Sūtras from chapter I, pada II, to chapter III, pada IV, by Kumārila Bhaṭṭa, the great predecessor of Saṅkara, and the great reorganiser of modern Brahmanic society throughout India. He flourished in the beginning of the eighth century, and commented on the Savarabhāṣya. The first part of his commentary, *i.e.*, on Chapter I, pāda I, is written in verse and is called Sloka-Vārtika. The second part in prose up to Chapter III, pāda IV, is called the Tantra-Vārtika. The commentary on the rest is called the Tuptikā. Babu Gaṅgānāth Jhā, Professor of Sanskrit in the Muir Central College, Allahabad, was entrusted with the English translation of the first part, the Sloka-Vārtika, after making a creditable advance in that work, he applied for permission to translate the Tantra-Vārtika which was gladly accorded. He has bought out one Fasciculus of the second work.

The descriptive catalogue of the works that have come to a close.

(1) Varṣa Kriyā Kaumudī by Govindānanda Kavikaṅkanācāryya came to a close during the year under review. This is the first volume

of the series by the author, the other volumes are in the course of publication. The editor, Kamala Kṛṣṇa Kāvya-tīrtha, has given a short preface discussing the date of the author and describing the MSS collected. His index giving the works consulted by the author is specially valuable.

(2) Nityacāra Paddhati, by Vidyākar Vājapeyī, composed in the fourteenth century in Orissa under the patronage of King Narasiṃha, was finished in seven fasciculi. Paṇḍit Vinoda Vihārī Kāvya Tīrtha, the discoverer of the work, has edited it with care and has given a preface discussing the date of the author and circumstances under which he wrote. The indices appended are valuable.

(3) Trikāṇḍa Maṇḍanam or Apastamba-sūtra-dhvanitārtha-kārikā by Bhāskara Misra, called Trikāṇḍa Maṇḍana, son of Kumāra Svāmī, who boasts of being a mace and an axe to the opponents in disputation, purports to be the versified essence of the 10th Praśna of the Āpastamba Śrauta Sūtras of the Black Yayurveda, treating of Soma Yāga. The editor, M. M. Candra Kānta Tarkālaṅkāra, has written a very meagre preface. He has not gone beyond his MSS. in editing this work.

(4) Āpastamba Śrauta Sūtra belonging to the Black Yayur Veda came to a close under the distinguished editorship of Prof. Dr. Richard Garbe of Tübingen in seventeen Fasciculi. The first twelve fasciculi were accompanied with a commentary by Varadutta Suta Ānarttiya, but the other fasciculi had no commentary. The editor has written an excellent preface discussing the peculiarities of language and grammar of Āpastamba, on the unity of the Sūtra collection of the Āpastamba School; on the position of these Sūtras in the ritual literature and topics of that sort. His index is extremely valuable.

Search for Sanskrit MSS.

M. M. Hara Prasād Sāstri was in charge of this department throughout the year. He took two trips to Benares, and his travelling Paṇḍits were touring in Orissa and in Western Bengal; nearly three hundred MSS. have been collected, of which about hundred acquired at Benares contained many interesting, and curious works. Many new digests of Hindu law and ritual have been brought to light. During the last three months the M. M. and his Paṇḍits were engaged in preparing an alphabetical list of all the MSS. in the Asiatic Society's rooms belonging to the Society and to Government. This list will be a valuable guide in acquiring new MSS in the future.

The Report having been read and some copies having been distributed, the Chairman invited the Meeting to consider it at their leisure,

The Chairman announced that the Elliott Prize for Scientific Research for the year 1903 would not be awarded, as the essay received in competition was not of sufficient merit to justify the award of the Prize.

Mr. H. H. Risley, Vice-President, then addressed the Meeting.

ANNUAL ADDRESS, 1904.

GENTLEMEN,

It is due to a series of accidents that I am called upon to take the chair to-night. The President, Mr. Bolton, is on leave in England and we, being old fashioned people and cherishing the traditions of a century ago, have not as yet adopted the relatively modern practice of making an officiating appointment in every casual vacancy. The two senior Vice-Presidents are also absent—a fact which only came to my notice a few days ago. Consequently it has been impossible for me to prepare an address reviewing the work of the Society, or the progress of any of the forms of research with which it deals, on the exhaustive scale achieved by Dr. Hoernle or even in the more modest fashion attempted by myself on a former occasion. I shall therefore merely call attention to some points of interest in the papers noticed in the report and shall then say a few words on the general question of the present position of the Society, and the causes which affect its influence and the character of its work.

The papers which interest me most are Mr. O'Malley's on Gaya and the Gayawals, and Dr. Hahn's on the Oraons. Both seem to support the position which I have taken up in the Census Report now being published, that the beginning of Animism and possibly of all religion are to be found in the recognition of indefinite impersonal powers, which are approached not by prayer but by magic, and that the personal element in religion is a later development. The legends cited by Mr. O'Malley are curious, but they are obviously of comparatively recent date, and they belong to the familiar class of myths that are evolved in the attempt to account for some ritual or usage that does not fit into the accepted system of religion. I suspect that the Gaya ritual is a survival of animistic observances older than either Buddhism or Hinduism, and adopted by the latter in that pleasingly Catholic spirit which is common to it and to the paganism of the Greeks and Romans. I cannot attempt to examine the question at length now, but I venture to think that it deserves further enquiry, and that a minute investigation of the Gaya ritual undertaken on the spot would disclose survivals pointing to its real origin. There is reason to believe that the Gaya district was once occupied by

the Munda Kols, and it seems possible that the hills near the town were worshipped by them as Marang Buru, and that the present worship may be a Hinduised version of some animistic ritual practised by the Mundas. The Asuras, I may add, figure very prominently in Munda religious traditions. An excellent account of the myths on the subject was given some years ago in the *Zeitschrift für Ethnologie* by Herr Jellinghaus, who was then a missionary in Ranchi.

Mr. Hahn refers to this legend in his paper on the Oraons. It is curious to read that when an Oraon has failed by magic to get rid of a disease caused by the impersonal powers which Mr. Hahn describes as evil spirits, he turns in prayer to Dherme the sun and says, "Now the case rests with thee." You will observe that he tries magic first and resorts to religion later on when his magic has failed him. That according to one school of thinkers is the normal course of evolution. The Oraons, like the Athenians, have an unknown God, but they build no altar to him. He haunts certain fields which must be kept fallow, though cattle may graze on them. Probably these are not conspicuous for fertility. Their medical practice is more simple than appetizing. It consists in sucking the navel of the patient and producing therefrom a worm which is the cause of the disease. The imagination of the sick man does the rest—an ancient principle which is now being revived on a large scale in America under a new name.

On Professor Bendall and Mr. Irvine's papers I have nothing to add to the notice in the report. Mr. Irvine shows incidentally how uncertain life was in the entourage of the Mughal Emperor who was a contemporary of Queen Anne, and what remarkably unpleasant methods were adopted in dealing with unpopular courtiers.

I now turn to the large question of the position and prospects of this Society. We all know that it is not the power that it was in its earlier days. We all know that people say that our meetings are dreary, that our journal appears at long and uncertain intervals, that its pages are devoid of all human or other interest. Well, that may be so; people must be presumed to know what interests them, and I should be the last person to call in question anything so infallible as popular opinion. But these things rather depend on the point of view, and the popular point of view is not invariably the most instructive one. I cannot help remembering how at a meeting of that august body, the British Association, a room was filled to overflowing to see a famous Polar explorer exhibit the rational dress—a pair of fur trousers—worn by the Eskimo ladies and to hear him descant in the most grotesque English imaginable on their undeniably capacious dimensions. For the scientific aspects of the explorer's work this cultured audience cared not a jot, and when the

first authority of the day on Polar geography got up to criticise some of the lecturer's conclusions on matters less attractive than female attire he was received with manifest signs of boredom and disapproval.

Yet when we have said, "Populus me sibilat, at mihi plaudo," is that quite the last word? I hardly think so, and that is why I have taken our position as a Society for the subject of this brief address. We shall all admit, when we have relieved our minds by a gibe at the Philistine in the street, that the authority and influence of the Society are not what they were a century ago. We do not do so much, and what we do does not attract so much general attention as it did. Those are the facts, there is no disputing them, but it seems worth while to make an attempt to discover their causes.

The standard explanation, a stock excuse for many things in India, is want of leisure. Every one is said to be too busy. The demands of official work, of business, of society are heavier than they were in the old days. People had time then to read and to think; they have no time now. That line of apology I would sweep aside as emphatically as His Excellency the Patron did five years ago, at the first meeting of the Society which he honoured with his presence. As crucial illustrations of its futility, I would appeal not only to the example of the Patron himself, who manages to find time for everything, but to the achievement of one of our Vice-Presidents, Mr. Pargiter, who has recently completed a critical edition and translation of the Markandeya Purana. Now if the absorbing labours of a Judge of the High Court present no barrier to his engaging in the most laborious form of linguistic research, how can the plea of overwork be put forward on behalf of the lighter duties—the mere distractions—of other branches of the public service, or of mercantile pursuits?

There is another stock apology which, like the former, is used in a loose general way to account for anything in India that is thought for the moment to be out of joint. We are told that since the days of railways and steamers Englishmen in India have become mere birds of passage, that they go to Europe so often that they lose their interest in the East, and get out of touch with the people and their ways. Consequently, so the argument runs, they no longer care to write papers for the Asiatic Society; its journal languishes and its meetings have become dull. The conclusion may or may not be true: the premise is, in my opinion, if not absolutely false, at any rate far too widely stated. There has never been a time when interest in India and in the East generally has been so keen and so widely diffused in Europe as it is at the present day. You see it in every branch of the subject with which this society deals, and it has been and will continue to be enormously quickened by the great political

movement which is now in progress—the scramble for possessions, trade interests and *points d' appui* in Asia. It is indeed hardly a paradox to say that if any one in this country is in want of a stimulus in the particular branch of study in which he is engaged, he will best find it in a visit to Europe and in contact with fellow-workers there. Any one of a dozen Societies will give him a cordial reception, and their enthusiasm revive his flagging energies. He will realise that the study of Indian subjects holds a higher place than it has ever done, that it is no longer treated as a thing apart which can be ignored with impunity, but that it enters into the solution of problems which a generation ago no one would have dreamed of approaching from the Indian point of view. Nor do I admit that the Europeans at work in India at the present day know less about the country and the people than their predecessors of a century ago. Of the country as a whole they know infinitely more because they have seen more, because trains and steamers move faster than boats and palanquins. Of the people also they can know more if they choose to take the trouble, for they have a better start. A good deal has been done of recent years by Mr. Crooke and others to arrange and systematise the vast mass of ethnographic information that is available. The ethnographic survey will add greatly to our stock of knowledge, and I am glad to be able to inform the society that for Assam the Hon. Mr. Fuller has modified the original scheme on lines which will give us a series of illustrated monographs on the tribes of that interesting province. In two or three years' time I hope that any one in any Province who desires to understand the structure and usages of Indian Society will find adequate guidance through the preliminary stages of the subject. It will rest with him to break new ground and to extend by research the information that has been placed at his disposal. For ignorance at any rate there will no longer be any excuse, and there will be the basis for that higher form of knowledge which consist in understanding the ways of alien races and appreciating their point of view.

For the real causes of the diminished influence of the Society we must look back to the history of its own growth and development. When our first President, Sir William Jones, gave to the world, as Sir Henry Maine admirably put it, "the modern science of Philology and the modern theory of Race," the Asiatic Society of Bengal had a practical monopoly of the new learning. The Calcutta scholars of that day, Jones, Colebrooke, Wilkins and Wilson, all of them active members of this Society, were the pioneers of the Sanskrit Renaissance as the Greek scholars of the 15th Century were of the revival of learning in Europe. But Calcutta was not long to remain the centre of Sanskrit studies. When the German Universities entered the field guided by Humboldt

and Wolff, and controlled by a Government too wise to leave the great national interest of higher education to the chances of private enterprise, the combination of industry and organization was bound to make itself felt. New centres of authority arose, and we now look to Germany for the latest light in the matter of Oriental Scholarship. One of the features of their method was the specialization of research. Some years ago when Professor Garbe visited India, I remember asking him some question about a passage in *Manu*. He explained the point, but added that the law books were not in his line and that for a really authoritative interpretation one should consult Bühler or Jolly. When people work on these lines can we wonder that our Society has been rather left behind in the domain of scholarship?

In the region of science, while the result has been the same, it has come about in rather a different way. When the Founder of the Asiatic Society defined the range of its inquiries as extending to whatever is performed by man or produced by nature, his words corresponded to the facts. We were then the sole organ of research in Asia. Whatever was done in Geology, Meteorology, Zoology, Botany was done at the instance of and through the agency of this Society, and the results of these researches were published in this Journal. Now all these branches of scientific activity have grown and developed on lines of their own. They have blossomed forth into separate departments, and they publish their own memoirs. This is the natural course of evolution. The Society has multiplied by fission, like the "philoprogenitive sponge" in Professor Daubeny's witty verses, and has given birth at successive epochs to the Geological Survey, the Meteorological Department, the Botanic Survey, the Indian Museum and the Linguistic Survey—a flourishing family of which it may well be proud. Looking back at these procreative efforts, can we be surprised that the parent organism is if not exhausted at least somewhat attenuated, and that in comparison with the portly volumes which its descendants produce (Dr. Grierson's Survey occupies 16 quarto volumes) its own publications should have shrunk to rather slender dimensions?

What then is there left for us to do? We cannot—I would frankly admit the fact—aspire to rival the Germans in the matter of scholarship, at any rate not at present. It may be that my friends Dr. Ross and Hara Prasad Sastri will succeed in creating traditions of critical accuracy on the lines recognised as sound in Europe and will train up a generation of Joneses, Colebrookes and Wilsons. But it will take a long time, for modern scholarship is a hard mistress to serve, and demands an intellectual equipment, a range of knowledge, and a standard of accuracy far beyond the reach of the typical Maulvi or Pandit. Until that ideal

has been realised we must content ourselves with the useful if inconspicuous work that we do now—collecting manuscripts and publishing texts, furnishing the material which European scholars will work up. In this matter we have the great advantage of being on the spot, and any one who will read Pandit Hara Prasad Sastri's report on his operations will see what a large quantity of valuable manuscripts have been saved from destruction or oblivion by his exertions and by the patient enquiries of his travelling subordinates. We hope that the Government will now place us in a position to extend this system to Arabic and Persian Manuscripts. The extension has been suggested and is more than justified by Dr. Ross's discovery in the library of the Calcutta Madrassa of an autograph manuscript history of Gujarat and of the earlier Moghals, which throws a new light upon an important period of Indian history. Where the materials are so scanty, and their value is so often vitiated by the position or predilections of the writer, the search for fresh sources of information is a duty which this Society can most properly undertake.

Another line of possible activity is antiquarian research in which the man on the spot has an obvious advantage over the most laborious student working at a distance. We all of us know how much Mr. Wilson has done to elucidate the obscure and complicated problem of the Topography of Old Fort William and the Black Hole. He has now crowned his labour by producing a scale model of the old Fort which will, I believe, be exhibited next month in the Indian Museum. The model is a work of art in itself, and any one who chooses to study it can go to the actual sites, identify, with the help of the tablets erected under His Excellency the Viceroy's orders, the few portions of the original buildings that survive, and picture to himself exactly what the old Fort was like, and how it came to pass that 146 people were driven, without knowing where they were going, into the stifling cell, which Holwell describes as "a cube of 18 feet."

In connexion with the Fort and the Black Hole Mr. Wilson has not left much for any one who follows in his footsteps. But there are many localities in and around Calcutta which will repay similar exertions. Take for example the names of the Calcutta streets. I hear that all the Indian names are about to be recast on the Hunterian System, and that the street lamps will soon be embellished with some remarkable transformations of well-known names. Before this break is made with the past I trust some learned member of the Society will go into the question and tell us how the names themselves arose. A great deal of the early history of Calcutta is wrapped up in them and in name such as "Kolutola," which seems to record an ancient settlement of oil-pressers.

European and Armenian names demand investigation for the same reason. For all I know some one may have done this already; but the results are hidden away in forgotten papers of this Society and are not readily accessible. We want in fact some one to do for Calcutta in a systematic fashion what Sir Walter Besant did for London—to tell the story of its growth and development. If the facts are once cleared up you will find that plenty of romance goes with them.

I said above, and I fancy that no one will disagree with me, that in matters of scholarship the centre of authority has now been shifted to Europe. But mere scholarship is not every thing. It is only a means to the higher end of reconstructing the life of the past. In working towards this end students of the East have the great advantage that the present *is* the past or at any rate is so full of survivals of the past that it forms the only instructive commentary on the written record. Here it seems to me is the most promising field for the future researches of our Society. Let us admit that we are no longer supreme in scholarship, but let us endeavour to ascertain and analyse the actual facts of the present day—the customs, beliefs, superstitions and ritual that have descended without material alteration from very remote times. This may enable us to supplement and often to correct the conclusions of European scholars, to add colour to their descriptions, to reconstruct life in India as it was in the time of Buddha or perhaps even before Buddha and, as I ventured to suggest here five years ago, to elucidate not only Indian literature, but also those features in the life of the Greeks and Romans, which form part of the common heritage of the Aryans. If we attempt this, however, imperfectly we shall find for our selves ample and attractive occupation and we shall be doing useful work which no one else can do so well.

The Chairman announced that the Scrutineers reported the result of the election of Officers and Members of Council to be as follows:—

President.

The Hon'ble Mr. Justice F. E. Pargiter, B.A., I.C.S.

Vice-Presidents.

The Hon'ble Asutosh Mukhopadhyaya, M.A., D.L., F.R.S.E.

Major D. Prain, M.A., M.B., LL.D.

T. H. Holland, Esq., F.G.S., A.R.C.S.

Secretary and Treasurer.

Honorary General Secretary:—J. Macfarlane, Esq.

Treasurer:—C. R. Wilson, Esq., M.A., D. Litt.

Additional Secretaries.

Philological Secretary:—T. Bloch, Esq., Ph.D.

Nat. History Secretary:—Captain L. Rogers, M.D., B.Sc., I.M.S.

Anthropological Secretary:—E. D. Ross, Esq., Ph.D.

Joint Philological Secy.:—Mahamahopādhyaya Haraprasad Shastri.

Other Members of Council

T. H. D. La Touche, Esq., B.A.

Kumar Ramessur Maliah.

Arnold Caddy, Esq., M.D., F.R.C.S.

I. H. Burkill, Esq., M.A.

H. E. Kempthorne, Esq.

Major A. Alcock, M.B., LL.D., C.I.E., F.R.S.

C. Little, Esq., M.A.

W. K. Dods, Esq.

The Hon'ble Mr. A. Earle, I.C.S.

The Meeting was then resolved into the Ordinary General Meeting.

THE HON. DR. ASUTOSH MUKHOPADHYAYA, M.A., D.L., Vice-President, in the chair.

The minutes of the last meeting were read and confirmed.

Forty presentations were announced.

Mr. Percy Brooke Bramley was balloted for and elected an Ordinary Member.

The Council reported that in consequence of the deaths of Prof. E. B. Cowell and Sir George Stokes, there were now six vacancies in the list of the Honorary Members. The Council therefore recommend the six following gentlemen for election as Honorary Members at the next Meeting.

Prof. Heinrich Kern, Leiden.

Dr. Ramkrishna Gopal Bhandarkar, C.I.E., Poona.

Dr. M. J. DeGoeje, Leiden.

Dr. Ignaz Goldziher, Budapest.

Sir Charles Lyall, London.

Sir William Ramsay, London.

Professor Heinrich Kern, born in Java in 1833, began his career as a scholar with contributions to the great Sanskrit Dictionary of Böhtlingk and Roth: from 1863-65 he was Sanskrit Professor in the college at Benares, and from the latter date he has been professor of Sanskrit in

Leyden. His connection with Java doubtless has led him to devote himself to ancient Javanese, and to Buddhism, in which subjects he is regarded as one of the chief living authorities. His work in Sanskrit has been most copious, and includes the edition of a text for the *Bibliotheca Indica*, and a translation of the same made for the Royal Asiatic Society.

J. MACFARLANE.

Dr. Ramkrishna Gopal Bhandarkar, M.A., first distinguished himself by literary and archæological controversies with distinguished European scholars, and researches in the Geography of Panini and of Alexander's invasion. He was one of the principal contributors to the *Indian Antiquary* from its foundation in 1873. His history of Deccan is a masterpiece of accurate scholarship, and his fame depends chiefly on the volumes, six in number, which he has written in connection with the search of Sanskrit manuscripts in India, which are regarded as models of descriptive catalogues.

He joined the Education Service shortly after he left college and retired eleven years ago. Shortly after he was made the Vice-Chancellor of the Bombay University, and is at the present moment a member of the Imperial Legislative Council of India, and an honorary member of numerous Oriental Societies.

HARAPRASHAD SHASTRI.

Dr. M. J. DeGoeje.—Professor of Arabic in Leyden, Holland. Has done most valuable work in editing the great historical and geographical works of Arabic writers: notably his editions of Tabari's *Chronicle* and of Edrisi.

Dr. Ignaz Goldziher.—Professor of Semitic Philosophy, Buda Pesth. Perhaps the first authority in Europe on Muhammedan Law, Theology and Tradition. He is the author of many valuable works dealing with these subjects. Among them may be mentioned his "History of philological learning among the Arabs" and his "Mohammedan Studies."

Sir Charles Lyall, K.C.S.I., etc., etc.—Has a European reputation for his knowledge of ancient Arabic poetry. He has published a text and commentary of the *Muallaqat* and some English translations from Arabic poetry. He is engaged on an important edition of the *Mufaḍḍaliyyāt*.

E. DENISON ROSS.

Professor Sir William Ramsay, K.C.B., F.R.S., etc.—Eminent as an investigator in various departments of Chemistry. Sir Wil-

liam Ramsay's earlier researches were in the domain of organic chemistry. Later on he published a series of papers on Molecular Volumes, on the critical state and properties of liquids, and on molecular energy and the expansion of rarified gases, which were published in the year 1893. But the researches which secured for Sir William Ramsay world-wide reputation, are those which he carried on in conjunction with Lord Rayleigh, relating to the properties of argon, to be followed immediately after by the discovery of helium. The most recent of his researches treats of radio-activity, and, the production of helium from radium; these were communicated to the Royal Society in July last.

Sir William Ramsay is already a Foreign or Honorary Member of various Scientific Societies, among which may be mentioned, the French Academie des Sciences, the Royal Irish Academy, the Academies of Berlin and Turin, and the Philosophical Societies of Geneva and Leyden.

ASUTOSH MUKHOPADHYAY.

It was announced that Sir John Eliot had expressed a wish to withdraw from the Society.

The General Secretary reported the deaths of Mr. M. N. Chatterji and Mr. A. T. Pringle, Ordinary Members of the Society.

Read the following circular letter from the Government of India, Department of Revenue and Agriculture, No. 54-13-10, dated 28th November 1903, to the Government of Bengal, General Department, relative to the appointment of Dr. Denison Ross as the Honorary Epigraphist for Persian and Arabic Inscriptions.

"With reference to Mr. Muir-Mackenzie's Circular No. 38—17 of the 11th August 1892, and to paragraph 5 of the Government of India's Despatch No. 31 of the 16th June 1898, a copy of which was forwarded with this Department's Circular No. 1953—55, dated 13th June 1899, I am directed to state, for the information of His Honour the Lieutenant-Governor, that the Government of India have appointed Dr. Denison Ross, Principal of the Calcutta Madrassa, to be Honorary Epigraphist for Persian and Arabic Inscriptions.

2. I am to request that Archæological Surveyors may be instructed to forward to Dr. Ross all Persian and Arabic inscriptions and epigraphical materials relating thereto, which may be collected by themselves or sent to them by other Government officials. Arrangements for the publication of the epigraphical matter thus collected in the *Epigraphia Indica* are at present under consideration, and any

papers dealing with Persian and Arabic inscriptions and intended for publication there should therefore be sent to Dr. Ross."

The following paper was read:—

The Line at Infinity.—By INDUBHUSHAN BRAHMACHARI, M.A. Communicated by MR. C. LITTLE.

(Abstract.)

This paper contains a systematic and exhaustive investigation of the properties of what is known to Mathematicians as the Line at Infinity or Line Infinity. The position of any line on a plane may be completely determined, if we know the intercepts which this line makes upon two given intersecting lines which may be taken as the axes of coordinates. Now, if these intercepts become infinite in length, the line itself will move off to infinity. In other words, if the equation of the line situated within a finite region of the plane be $\frac{x}{a} + \frac{y}{b} = 1$, where a and b are the intercepts, the equation of the line at infinity will be the apparently paradoxical form $1 = 0$ or constant = 0. The two fundamental properties of this imaginary line are, first, every point on this line is at infinity, and secondly, that every point at infinity lies on it, or in other words this line is the complete point representative of infinity. Consequently, the idea of direction must not be associated with this line. Moreover, it is at the same distance from all ordinary points, because every point of it is at an infinite distance. One of the most familiar instances of the appearance of the line at infinity is in the investigation of the properties of circles, namely it is the imaginary chord of intersection of all concentric circles. Another instance of its appearance is as the pole of the centre of a conic; in other words, it is the line joining the points of contact of the asymptotes of a hyperbola with the curve. To put the matter in another way, although the asymptote is a tangent whose point of contact is at infinity, it is itself not the line at infinity because it does not lie entirely at infinity.

The present paper contains a detailed examination of the properties of this line, and shows how its introduction enables us to obtain the solutions of various problems connected with real lines and conics. The paper also contains applications of the properties of this line in connection with the theories of reciprocation and projection.

PROCEEDINGS
OF THE
ASIATIC SOCIETY OF BENGAL.
FOR MARCH, 1904.

The Monthly General Meeting of the Society was held on Wednesday, the 2nd March, 1904, at 9 P.M.

C. LITTLE, Esq., M.A., in the chair.

The following members were present :—

Mr. R. P. Ashton, Mr. J. Bathgate, Mr. D. Hooper, Mr. V. H. Jackson, Mr. J. Macfarlane, Dr. M. M. Masoom, Pandit Yogesa Chandra Sastree, Dr. C. Schulten, Mahamahopadhyaya Haraprasad Shastri, Pandit Jogindra Nath Vidyabhushan, Pandit Satis Chandra Vidyabhushan, Mr. E. Vredenburg, Dr. C. B. Wilson.

Visitor :—Mr. W. J. A. Cunningham.

The minutes of the last meeting were read and confirmed.

Twenty-seven presentations were announced :—

Kumar Kamlananda Singha, Mr. W. H. Arden Wood, Mr. A. W. Pim, and Prof. E. J. Rapson, were balloted for and elected Ordinary Members.

Prof. H. Kern, Dr. Ramkrishna Gopal Bhandarkar, Dr. M. J. DeGoeje, Dr. Ignaz Goldziher, Sir Charles Lyall, and Sir William Ramsay, were balloted for and elected Honorary Members.

The General Secretary read the names of the following gentlemen who had been appointed to serve on the various Committees for the present year.

FINANCE AND VISITING COMMITTEE.

Dr. T. Bloch, The Hon. Mr. A. Earle, Mr. H. H. Risley, Mahamahopadhyaya Haraprasad Shastri, Dr. E. D. Ross, The Hon. Dr. Asutosh Mukhopadhyaya, Mr. J. Bathgate, Mr. H. E. Kempthorne, Major A. Alcock, I.M.S., Mr. T. H. Holland, Mr. W. K. Dods.

LIBRARY COMMITTEE.

Dr. T. Bloch, Mr. D. Hooper, Mr. C. W. McMinn, The Hon. Dr. Asutosh Mukhopadhyaya, Mahamahopadhyaya Haraprasad Shastri, Mr. E. Thornton, Dr. H. H. Mann, Dr. E. D. Ross, Mr. I. H. Burkill, Mr. E. Vredenburg.

PHILOLOGICAL COMMITTEE.

Maulavi Ahmad, Dr. T. Bloch, Babu Pratap Chandra Ghosha, Shams-ul-Ulama Mahomed Shaikh Gilani, The Hon. Dr. Asutosh Mukhopadhyaya, Major D. C. Phillott, I.A., Pandit Satyavrata Samasrami, Mahamahopadhyaya Haraprasad Shastri, Mahamahopadhyaya Chandra Kanta Tarkalankara, Dr. G. Thibaut, Babu Nagendra Nath Vasu, Mr. A. Venis, Dr. E. D. Ross, Mr. E. A. Gait, Pandit Satis Chandra Vidyabhushan, Babu Monmohan Chakravarti.

COINS COMMITTEE.

Lt.-Col. D. S. E. Bain, I.M.S., Dr. T. Bloch, The Hon. Sir J. A. Bourdillon, Babu Panchanan Mukerjee, Mr. E. Thurston, Mr. M. J. Seth, Mr. H. N. Wright, Dr. E. D. Ross, The Hon. Mr. A. Earle, The Hon. Mr. John Hooper.

The General Secretary reported the death of Dr. Mahendralal Sircar, an Ordinary Member of the Society.

At the request of the Council, the Hon. Dr. Asutosh Mukhopadhyaya contributed the following obituary notice of Dr. Mahendralal Sircar:—

The Society has lost by the death of Dr. Mahendra Lal Sircar, C.I.E., one of its oldest members. Dr. Sircar was born on the 2nd November, 1833 in Paikpara, near Howrah. After a distinguished scholastic career, in the Hare School and the Hindu College, he joined the Calcutta Medical College in 1854, where his career was exceptionally brilliant. In 1863, he was admitted to the degree of Doctor in Medicine. It is not necessary to refer in detail to his conversion to the Homeopathic faith and his consequent ostracism from orthodox Medical Society. He remained a staunch Homeopath to the end of his days and published numerous

writings in the Calcutta Journal of Medicine which he started in January 1868, and continued to edit for thirty-six years. In 1869, Dr. Sircar published a paper on the desirability of a national institution for the cultivation of the Physical Sciences by the natives of India, and it was through his unceasing efforts that the Indian Association for the cultivation of Science was founded six years later at a time when even Government Institutions hardly made adequate provision for the practical teaching of Science. Dr. Sircar continued to be the Secretary of the Institution till the day of his death, and so long as health permitted, systematically delivered courses of lectures there. Dr. Sircar was appointed a Fellow of the Calcutta University in 1870, and was for many years an active member of the Senate, directing his efforts mainly to secure for the experimental sciences a proper recognition amongst the studies of the University. He was for ten years a member of the Syndicate, for four years President of the Faculty of Arts and acted on several occasions as an examiner in scientific subjects for the M.A. and M.D. Examinations. In 1898 the University conferred on him the Honorary Degree of Doctor in Law, in recognition of his services to the cause of scientific education. He was made a C.I.E. in 1883, was appointed Sheriff of Calcutta in 1887, and was nominated by Government a member of the Bengal Legislative Council on four successive occasions, He was a Justice of the Peace and Presidency Magistrate from 1877, and for many years took an active part as a Municipal Commissioner in the Corporation of Calcutta. He maintained for many years a Charitable Homeopathic Dispensary, where he gave advice and medicine free to all classes and creeds; and more than ten years ago he founded a Leper Asylum at Deoghur.

He joined the Society in April 1867, served on the Council for eleven years between 1885 and 1901, and at the time of his death, was one of the Trustees of the Indian Museum on behalf of the Society.

The General Secretary reported the presentation of one coin from the Government of United Provinces of Agra and Oudh.

Pandit Yogesa Chandra Sastree exhibited an image of Manju Nath brought from Lhasa (Tibet), and also copper-plate grants from Rajputana and Guzarat.

This image of Manju Nath, otherwise called Manju Deva or Manju Sree, has been handed over to me by one of my European friends who secured it through a Lama from Lhasa in Tibet. It is a Buddhist deity generally worshipped by the Newars of Nepal.

It is stated in the 7th chapter of the Brihat Swayambhupuran that a sage named Manjusree came from China to the Swayambhup-

kshetra in Nepal and attained salvation there. He was afterwards worshipped as a god by several trading people who were Bouddhas. A full account of Manju Nath can be found in the book mentioned above, an Ms. copy of which exists in the Library of the Asiatic Society of Bengal.

On the pedestal of this image, it is inscribed that one Punabanta, who was a Tuladhar by caste and an inhabitant of **कुडकोस जादाचीका** died at Lhasa. His living wife, named **ईन्द्राची**, founded this image of Manju Nath in her own and husband's name on the 15th Phalgun of the 943 Nepali era (i.e., in February, 1823 A.D.).

The image has got three heads and six hands. In two of three right hands there are—a sword, an arrow, while the third is offering aboon. In the three left hands there are—a book in the first, a bow in the second, and in the third the foot stalk of a lotus flower which is broken.

There is a female figure on the left side of the lap of this image of Manju Nath which can be presumed to be that of his wife. The two figures sitting on the pedestal in a worshipping position are females. Their names **पुण्यमि** and **दयामि** (virtuous mind and merciful mind).

The language of the inscription is a mixture of Sanskrit and Newari. The latter is a dialect of the hill tribes of Nepal and entirely unconnected with the former. The alphabets are also not purely Devanagri nor Newari but a mixture of the both.

The image, it seems to me, is made of gilt brass. The gilding is of a high order and is a proof of the antiquity of the image.

My same European friend gave me both of these copper-plate grants.

The language of the inscription in plate No. 1 is a mixture of Sanskrit and Marwari, and the characters are mostly Devanagri and occasionally Marwari. The inscription is deeply incised, and legible. Its size is $8\frac{1}{2}$ inches by 7 inches.

The inscription is to the effect that Kubar Durjana Singhajee, son of Kubar Guman Singhajee and grandson of Maharao Siva Singhajee of Sirohi granted a village named (perhaps) **पिडवार** to the shrine of **रीवहोदजी** i.e., **बीडव** for the purpose of establishing a vandara (inn) in connection with his temple to distribute food to the poor. The grant was made on the 5th Aswin of 1897 (Bikram's era) i.e., in September, 1843 A.D.—14 years before the mutiny.

I found the name of Maharao Siva Singhajee in Hunter's Gazetteer to be the ruler of Sirohi State, who rendered a great deal of help to the British Government during the mutiny of 1857. It is not improbable that he is the man whose name we find in the inscription. Attempts are being made through the Governor-General's agent in Rajputana to throw further light on this grant. The inscription has an incorrect

Sanskrit verse at the end of it; which, when translated into English, runs thus:—"He who confiscates the land gift made either by himself or by someone else, lives in hell as long as the sun and moon endure."

The language of the inscription of the plate No. 2 is a mixture of Sanskrit and Guzerati, and the characters are Devanagri and Guzerati, and except in two or three places, are deeply cut and legible. Its size is $8\frac{1}{4}$ inches by $7\frac{1}{4}$ inches.

The inscription of this plate is to the effect that one Bai Sree Maha Kubar Bai made over a village named Meruojeshinagar to the shrine of Radhaje, whose temple is situated in the Islands of Dwaraka for the same purpose as that of the plate No. 1. The grant was made on the 7th Magha 1813 (Bikram's era) i.e., January, 1757 A.D.—4 months before the battle of Plassey.

The inscription of this plate also has an incorrect Sanskrit verse at the end of it containing 4 lines; the last two of which say the same thing as the plate No. 1; but the first two lines if translated into English would be: "He, who protects the land gift made either by himself or by any one else, lives in heaven as long as the sun and moon endure."

The following papers were read:—

1. *Mahals in Sarkar Lakhnau.*—By H. R. NEVILL, I.C.S.

(Abstract.)

In the Journal of the Asiatic Society of Bengal for 1884 there appeared an article by Mr. J. Beames 'On the Geography of India in the Reign of Akbar,' in which he dealt with the *mahals* and *sarkars* of the *subah* of Awadh as recorded in the *Ain-i-Akbari*.

Mr. Nevill is attempting to complete the work of Mr. Beames. The present paper relates only to the *sarkar* of Lakhnau.

Mr. Nevill rejects the view that Tara Singhaur is now included in the *pargana* of Daundia *Khera*. Tara Singhaur he identifies with a village called Singhaur Tara on the banks of the Ganges some seventeen miles south-east of Daundia '*Khera*, lying in latitude $26^{\circ} 3'$ north and longitude $80^{\circ} 53'$ east. Kahanjara is the village of Khanjar or Kahenjar in the north of *pargana* Sareni, in latitude $26^{\circ} 11'$ north and longitude $80^{\circ} 49'$ east. Lashkar is the modern village Nisgarh, also in *pargana* Sareni, in latitude $26^{\circ} 6'$ north and longitude $80^{\circ} 46'$ east. Deorakh is the hamlet now called Deorakhār in the centre of *pargana* Sareni. Haihar still gives its name to a small estate in Rai Bareli, in the north-west of *pargana* Dalman, four miles east of Lalganj. Kumbhi must be fitted into the Parwa *tahsil* of the Unao district, in *pargana* Mauranwam. Lastly, Pingwān or Bangwān is Bangawān in the Sadarpur *pargana* of Sitapur. This clears up the whole geography of the *sarkar*.

2. *Materials for a Flora of the Malayan Peninsula, No. 15.*—By SIR GEORGE KING, K.C.I.E., LL.D., F.R.S., &c., *late Superintendent of the Royal Botanic Garden, Calcutta, and MR. JAMES SYKES GAMBLE, M.A., C.I.E., F.R.S., late of the Indian Forest Department.*

(Abstract.)

The present paper contains practically the completion of the account of the large National order *Rubiaceæ*. Owing to an accident, it has unfortunately been found necessary to postpone the publication of the descriptions of the species of the genus *Psychotria* (numbering about 45) until the next paper of the present series. A key is here given to the remaining twenty-three genera of the family, the key to the first thirty having appeared in the last paper. In all 123 species, belonging to 22 genera, are now described; and, of these, 47 species are believed to be new to Science.

3. *The Buddhist Doctrine of "Middle Path."*—By PANDIT SATIS CHANDRA VIDYABHUSHAN, M.A. The paper will not be published.

(Abstract.)

The pandit explains the doctrine of the 'middle path' from two standpoints, ethical and metaphysical. Ethically the middle path consists in the avoidance of the two extremes of excessive self-indulgence and excessive self-mortification; metaphysically it consists in the avoidance of the two extremes of a belief in the reality of the world and a belief in its unreality. The world only appears to exist in virtue of conditions or relations. The relations are of four kinds: the causal condition as in the relation of the seed to the germ; the supporting condition as in the relation of fuel to fire; the condition of succession as between prior and posterior events; and the defining condition as in the relation of the eye to colour.

4. *Evidences of Slave trade in Moghul Empire.*—By MAHAMAHOPADHYAYA HARAPRASAD SHASTRI, M.A.

5. *Shoulder-headed and other forms of stone implements in the Santal Parganas.*—By REV. P. O. BODDING.

(Abstract.)

Mr. Boddington describes five new forms of stone implements found in the Santal Parganas.

1. Some wedge-shaped axes curved in a peculiar manner, the upper side being convex and the other concave.

2. Implements with squar eside edges, which used to be thought very rare in India.

3. A small oblong flat stone, the edge of which has been cut with small notches and which has probably done service as a saw.

4. Perforated stones, all of sandstone.

5. The 'shoulder-headed' celts of chert and sandstone. Some of them have two small notches, continuing a line down along each side of the neck down into the body of the stone. These notches are clearly marks left by the manufacturer, and show that the neck has been at least partially cut. The late Mr. Peal, arguing from the resemblance between these shoulder-headed celts and a kind of small iron hoe used in some Naga villages in weeding the hill paddy, assumed that the celts were miniature hoes. Mr. Bodding thinks it equally likely that they may have been adzes. The fact that these cherts are found in the Malayan peninsula and in Chota Nagpur does not show that the present inhabitants of the two regions are connected. It shows that in a former age the same people have either been living in them, or there has been some kind of intercourse between the countries.

6. *Himalayan Summer Storm of September 24th, 1903, and the weather immediately subsequent to that date in Northern India*—By C. LITTLE, M.A.

(Abstract.)

The paper on the Himalayan Summer Storm of September 24th, 1903, and the weather immediately subsequent to that date in Northern India, is the third of a series dealing with similar occurrences during the past two years. Of these occurrences, which have been called Himalayan Storms, because they are first observed in the region of the Himalayas, two striking examples belong to the monsoon season of 1902, and are dealt with in a paper entitled "Two remarkable Rainbursts in Bengal." Two still more remarkable examples belong to the monsoon season of 1903, and it is the latter of these that is discussed in this paper.

Extracts are quoted from the *Englishman* and *Pioneer* to show the character of the weather in Northern India during the latter half of September and the extraordinary change that began in Bengal about the 24th September. Father Francotte closed the usual weekly weather report in the *Englishman* on September 15th with the remark—"This year, 1903, there seems therefore to be greater fear for a speedy termination of the rainy period," and in the *Pioneer* of September 28th there occurred the following remark:—"The sky is becoming clear all over Upper India and fine weather is now promised by the Meteorological Department."

Ten days later the *Pioneer* wrote as follows: "On the 26th or 27th September the Meteorological Bureau seems to have arrived at the conclusion that fine weather conditions were becoming established over Upper India just on the eve of one of the most heavy and prolonged bursts of rainfall that can ever have been recorded so late in the year. Even now the daily telegrams seem to shew no appreciation of the extraordinary character of the season, &c."

It is pointed out in the paper that the subordinates of the Weather Bureaus who issued the warnings thus criticised had no alternative on the present system of looking towards the sea region to the South of India for all changes in the monsoon rainfall. Also that in this as in previous cases of the same kind exceptionally fine settled weather prevailed over the southern sea and the Bay of Bengal just before the commencement of the period of heavy rainfall, and that there was no appearance of a cyclonic storm of even slight intensity having entered Northern India until the second stage of the disturbance. On the other hand it is pointed out that in the North of Bengal, at a time when weather was fine in the South, thunderstorms began and spread southwards over Bengal. They first occurred in Assam and the Darjeeling Himalayas on the 23rd or 24th, in support of which there is recalled the experience of Puja holiday-seekers who left Calcutta in fine weather and found the Darjeeling railway badly breached. The thunderstorms spread southwards, and the change occurred in Lower Bengal on the evening of the 25th. A temperature tracing is given showing the thunderstorms of the 25th and 26th at Calcutta, and the subsequent gradual formation of a depression over Lower Bengal. This depression was most marked on the 29th, after which it moved westward and recurving in Central India towards the United Provinces caused the commencement of the heavy burst of belated rainfall which called forth the criticism of the *Pioneer* already quoted.

It has been proved in these papers that such an occurrence as what is called a Himalayan storm is followed by remarkable series of depressions over the north of the Bay, a striking example being the series which saved Western India from crop failure in August 1902. On this occasion two depressions formed; the first has been already mentioned. The second formed a week later, and following an almost identical course, maintained the rainfall in the United Provinces.

Brief quotations are given from the writings of Mr. H. F. Blanford and Sir J. Eliot to show that on the system introduced by the latter it was impossible to foresee the change which then began, because on that system all such changes are initiated over the southern seas, and on this

occasion weather remained exceptionally fine for the season in that area. But Mr. Blanford discovered more than twenty years ago that to forecast rainfall in northern India something more than the report from ground-level observatories is wanted. "What is more especially wanted now is a knowledge of the prevailing movements of the higher atmospheric strata." Nothing more is known now of these upper atmospheric strata than when Mr. Blanford wrote, but in this paper it is maintained that the change which began at the end of September last was in the upper strata, and that the circumstances of the subsequent rainfall could not have been foreseen without a knowledge of these strata—an opinion which the quotations from Sir J. Eliot's writings show was, in all probability, not shared by him. The paper closes with short tables of meteorological statistics showing the progress of the disturbance over Bengal up to the commencement of the first depression. The tables are arranged, as in previous papers, to show that the same features were present as on the occasions therein referred to.

7. *Cyclons of 13th to 15th November, 1903, in the Bay of Bengal.*—
By C. LITTLE, M.A.

(Abstract.)

The paper on the cyclone of 13th to 15th November in the Bay of Bengal is intended to show the importance of what is called 'recurring' in the more dangerous cyclones. Charts are given showing the tracks of two steamers, the 'Madura' from Calcutta to Rangoon and the 'Pentakota' from Rangoon to Calcutta, and the very curved path of the cyclone. The two steamers were on the outer edge of the storm at 8 A.M. on the morning of the 14th, and before midnight were involved in the central area of hurricane winds—the 'Madura' about 5 in the afternoon, the 'Pentakota' some hours later. The main object of the paper is to show that the rules laid down by Sir J. Eliot in the Handbook of Cyclonic Storms are of little assistance in enabling mariners to avoid the central area of a cyclone, that is of a severe cyclone, recurring as up-to-date experience shows all severe cyclones to do. Both these ships during the 14th moved in a course more likely than any other to bring them near the central area, and this is the more striking in the case of the 'Madura' whose officers were engaged in a continued effort to apply the rules of the Handbook. The course of the 'Madura' on the chart and the narrative quoted in the paper show that those on board were unable to allow for recurring until about 6 P.M., when the barometer began to rise and the centre had passed to the east of vessel. The opinion of the writer is given that this recurring cannot be anticipated and allowed for by consideration of ground-level and sea-level obser-

vations; that at sea as on land where recurring is associated with striking differences in rainfall distribution, the phenomenon is probably connected with the character of the upper strata of the atmosphere. Quotations are given from the Indian Daily Weather Reviews, in which the statements are based strictly on the system introduced by Sir J. Eliot, to show that a very inadequate appreciation of the character of the storm was possible on that system, and that any warning which could have been issued from Simla must have been of a general and ill-defined character. The discussion shows that a failure to avoid the central area of a cyclone cannot, in the present state of our knowledge, be provided against by rules, and that until meteorologists have accounted for recurring the "full intelligence" of the mariner cannot be made a matter of question, as appears to be the case on the front page of the Handbook. It is incidentally pointed out that wireless telegraphy is not likely to be an aid in storm warning, as experience has shown that it cannot be relied on when thunder is occurring—an invariable accompaniment of cyclonic weather in the Bay. American Meteorologists have tried it and have given it up. They are now going on laying cables between the mainland and islands a short distance from the coast. The Telegraph Department in India have stated in their last administration report that wireless telegraphy fails when the the atmosphere is electrically disturbed. The only apparent method of investigation is that suggested by Mr. Blanford more than twenty years ago, a suggestion of enquiry into the upper strata which is now the main line of investigation carried on by the United States Weather Bureau, and a method of enquiry for which the area comprising Lower Bengal and the North of the Bay gives every prospect of success. •

PROCEEDINGS
OF THE
ASIATIC SOCIETY OF BENGAL.
FOR APRIL, 1904.

The Monthly General Meeting of the Society was held on Wednesday, the 6th April 1904, at 9 P.M.

The HON'BLE MR. JUSTICE F. E. PARGITER, B.A., I.C.S., President, in the chair.

The following members were present :—

Dr. A. S. Allan, Mr. R. P. Ashton, Major W. J. Buchanan, I.M.S., Mr. I. H. Burkill, Mr. W. K. Dods, The Revd. E. Francotte, S.J., Mr. D. Hooper, Dr. W. C. Hossack, Mr. W. A. Lee, Mr. A. H. Lewes, Kumar Ramessur Maliah, Mr. C. W. McMinn, Captain L. Rogers, I.M.S., Pandit Yogesa Chandra Sastree, Pandit Satis Chandra Vidyabhusan, Mr. E. Vredenburg, Mr. J. Wyness.

Visitors :—Captain Black, I.M.S., Mrs. and Miss McMaster, Mr. R. R. Simpson.

The minutes of the last meeting were read and confirmed.

Nineteen presentations were announced.

Mr. J. O. Miller, and Mr. M. J. Simpson, were balloted for and elected Ordinary Members.

The General Secretary reported the death of Dr. U. C. Mukerjee, an Ordinary Member of the Society.

Read a circular relative to the XIV International Congress of Orientalists which will be held at Algiers in 1905.

The following is an abstract :—

The 14th International Congress of Orientalists will be held at Algiers during the Easter vacation of 1905.

The Committee draws attention to the fact that this is the first time the Congress has met in a Mussulman country, and hope that this interesting fact, together with the attraction of the climate and natural features of Africa, will ensure a large attendance. The Congress will, as before, devote itself to all branches of Oriental learning, though questions of local interest will receive special attention.

The subscription is 20 francs (ladies 10 francs), but this does not include the cost of the publications of the Congress.

Contributions on Oriental questions are invited. The address of the General Secretary is—M. Edmond Doutté, École Supérieure des Lettres, Parc de Fontaine-Bleue, Mustapha-Supérieur, Algiers.

Mr. E. Vredenburg on behalf of Mr. T. H. Holland exhibited further specimens of the Meteorite which passed over Calcutta on the 22nd October last.

Mr. I. H. Burkill exhibited some Burmese pottery ornamented in a very primitive manner.

At Thayetmyo two kinds of pottery clay are used for making pots ; the one gives ordinary cooking pots, the other gives a kind of terra cotta out of which vases are made.

The vases are ornamented by being polished in various designs by means of the hard bean of *entada scandens*.

Captain L. Rogers exhibited slides illustrating the Physiological Action and Antidotes of Snake poisons.

The following paper was read :—

Note on the Chestnut.—By W. GOLLAN, *Superintendent, Government Botanic Garden, Saharanpur.* Communicated by MAJOR D. PRAIN, I.M.S.

This tree has taken kindly to the Dehra Dun Valley, and it also exists on a small scale in the Kulu Valley, but outside of the two small areas the tree is rare, and will probably ever remain rare.

Here (Saharanpur) the tree flowers every season, but never ripens its nuts, and the same is the case over the Punjab and Upper Gangetic plains generally. At Aringadh, Mussoorie (5,500 feet), it also flowers every season but never ripens its nuts, and the same is probably the case at all the Hill Stations with the one exception of the Kulu Valley. As far as I can gather, the nuts are not yet an article of trade from the Kulu Valley, but a fairly large trade is done in them from Dehra Dun.

The only other centre I know of where the nuts are an article of trade is at Bhamo, Upper Burma, and there the nuts come in from China.

In the old reports of the Saharanpur and Mussoorie gardens, prodigious quantities of nuts are noted by the late Dr. W. Jameson as having been imported from time to time from Europe into N.-W. India, but it is not clear from these reports that these nuts ever yielded plants that attained to the age of nut-bearing trees. The native tradition of this garden is that the chestnuts now bearing at Dehra Dun belong to stock introduced by Fortune from China along with the tea plant. The trees now bearing in the Kulu Valley may be of the self-same stock. The plants could easily have reached that valley from the Saharanpur garden through the adjoining or neighbouring Kangra Valley where Dr. Jameson had charge of a Government experimental tea plantation.

The nuts now found at Dehra Dun and those which appear in the Bhamo bazar every season from China, are identical in general appearance. Both are very like the sweet chestnut of Europe, but neither are so well filled nor do they keep for so long. When perfectly fresh, they differ very little, if at all, from the nut of Europe, but they shrivel up and rot much sooner, and when a month old only a small percentage are fit to eat. I have tried both plants and seeds of chestnut from Europe, and in the course of an experience of over 25 years, have only established one plant at Arnigadh, Mussoorie, a grafted plant from Italy. This particular plant is over 20 years old and is still a round-headed bush 4 to 5 feet high and about the same through.

There are therefore very strong reasons for assuming that the European strain of sweet chestnut has been a most complete failure everywhere in Northern India, and that the small success we have had, is through seeds or trees of Chinese origin, introduced into N.-W. India by Fortune and established by Jameson.

PROCEEDINGS
OF THE
ASIATIC SOCIETY OF BENGAL.
FOR MAY, 1904.

The Monthly General Meeting of the Society was held on Wednesday, the 4th May, 1904, at 9-15 P.M.

The HON. MR. JUSTICE F. E. PARGITER, B.A., I.C.S., President, in the chair.

The following members were present:—

Major A. Alcock, I.M.S.; Dr. A. S. Allan; Mr. R. P. Ashton; Mr. J. Bathgate; Dr. T. Bloch; Mr. I. H. Burkill; Dr. A. Caddy; Babu Monmohan Chakravarti; Mr. W. K. Dods; Mr. K. G. Gupta; Babu Jotindra Nath Mukerjee; Captain L. Rogers, I.M.S.; Mr. A. Shrager Pandit Jogindranath Vidyabhushan; Pandit Satischandra Vidyabhushan; Mr. E. Vredenburg; Lt.-Col. J. H. Tull Walsh, I.M.S.

Visitors:—Mrs. and Miss McMaster and Mr. P. M. Mukerjee.

The minutes of the last Meeting were read and confirmed.

Fifty-two presentations were announced.

Mr. Framjee Jamasjee Thanawala and Mr. K. N. Knox were balloted for and elected Ordinary Members.

It was announced that Mr. T. W. Arnold and Mr. C. R. Marriott had expressed a wish to withdraw from the Society.

The General Secretary reported the death of Dr. Otto von Böhtlingk, an Honorary Member of the Society.

Dr. T. Bloch read the following obituary notice of Dr. Böhtlingk.

On the 1st April last, there occurred at Leipsic, in the high age of nearly 89 years, the death of one of the last surviving pioneers of Sanskrit studies in Europe, Dr. Otto von Böhtlingk. Having completed his University studies at his native town, St. Petersburg, he went to Berlin and then to Bonn, at that time the leading University in Germany for Sanskrit Philology. Here he studied under Schlegel and Lassen, and first entered the arena of independent workers with a masterly edition and translation of Kalidasa's Sakuntala. This was soon followed by an edition of Panini, the first that appeared in Europe, which was essential for placing the study of Sanskrit in Europe in its beginning upon a sound, critical basis. After returning to St. Petersburg, Böhtlingk was soon appointed a member of the Imperial Russian Academy of Science, a post which he held during his life-time, and which enabled him to devote all his time to scientific work, without being bound down by other official duties. A catalogue of his publications, which fills some eight or ten pages in print, shows how well he has used the leisure thus afforded to him. Having been a member of the St. Petersburg Academy for 25 years, he was, under the rules of that corporation, allowed to reside outside of Russia, and he first chose the small German University town of Jena as his residence, which he afterwards transferred to Leipsic, where he lived up to his death.

His *monumentum aere perennius* consists of the two great Sanskrit Dictionaries, of which he was the chief compiler, and which now generally go under the name of the St. Petersburg Dictionaries. Böhtlingk's name will always survive in the history of Sanskrit Philology as that of its first great lexicographer. Planned at the outset of that science, when the enormous mass of Sanskrit literature existed almost entirely in manuscripts, the work could not have been brought to a successful end without that persevering energy, which formed such a marked trait in the character of the late great scholar. Witness of this are the ten stately volumes of the great and small St. Petersburg Dictionary, a real mine of treasure, indispensable to any serious worker in that field of research. There is scarcely any independent earlier work in Sanskrit or Comparative Philology, the author of which does not gratefully acknowledge his indebtedness to the St. Petersburg Dictionary. The compilation of such a monumental work covered a period of 35 years. In the great Dictionary Roth contributed the Vedic matter, while epic and classical Sanskrit was the domain of Böhtlingk. Chief among other contributors were Aufrecht, Kern, Schiefner, Stenzler and Weber. The small Dictionary is primarily a compendium of the larger one, without the quotations, but contains also such additional matter, as had come to light in the meantime.

Böhlingk's other works are legion, and it would be impossible here even to name them all. But mention must be made of his second edition and translation of Panini, by which he made the rules of that great grammarian easily accessible to those scholars who have no time to enter into the intricacies of native commentaries; his translations and editions of the principal Upanishads, the aim of which was to restore the often corrupt and incorrect text and to find its simple and original meaning, independent of the often fictitious explanations of Sankara and other commentaries; and, last but not least, his charming compilation, called "Indische Sprüche," a collection of those short epigrammatic verses, illustrative of Indian thought and life, which are spread over a large number of Sanskrit books, and which are perhaps the only kind of Indian poetry that really appeals to the European mind. During his last years Böhlingk mostly wrote on Vedic passages, and although he never claimed to be a specialist in that line, his emendations and explanations of doubtful verses in the Veda were often striking and convincing. His active pen never rested, and even on his death-bed, suffering from a painful illness, he published a small Vedic article. When death came, it closed a life that may truly be called great in its devotion to science, and the memory of it will remain as long as Sanskrit Studies are cultivated.

The President announced :—

1. That Lt.-Col. J. H. Tull Walsh, I.M.S., had been elected a Member of the Council in the place of Major A. Alcock, F.R.S., resigned, and that Lt.-Col. Walsh had also been appointed to officiate as the General Secretary of the Society during the absence of Mr. J. Macfarlane.

2. That Dr. T. Bloch having returned from tour had taken charge of the duties of the Philological Secretary from Dr. E. D. Ross.

3. That the Hon'ble Dr. Asutosh Mukhopadhyaya had been appointed to officiate as the Treasurer of the Society during the absence of Dr. C. R. Wilson.

The Philological Secretary exhibited photographs of an old shirt belonging to the King of Delhi, forwarded by Major H. C. Tytler, I.A., of Agra, and read the following account given by Major Tytler :—

The shirt, which belongs to Mrs. Tytler, my mother, is in very good order and is printed on both sides, I am told, with the chapters of the Koran in old Arabic letters; it was obtained by my father, Col. Tytler, after the siege of Delhi, and has remained in the possession of my mother since the death of my father.

My mother's story as to how it came into his possession is as

follows: This is the true history of the shirt given to your father by Ahsanullah Khan, the King's physician, who was a prisoner under our residence in the Fort of Delhi, which had been the house of the King's uncle.

It appears, from what he said, that this shirt was one of five that were copied from Mahomet's shirt by the Emam of Mecca, and sent one to each of the great Mahomedan Potentates. The way we got it was that Marie, our French maid, who used to wander about with the children all through the empty Palace, found it lying in the King's own Palace in the Saman Burj, and knowing your father liked curiosities for his museum, brought it to me saying, "Regardez Madame comme il est curieux," to which I replied, "All right, Marie, put it down on our bed, and when master comes I will shew it to him." As soon as your father came home, I showed it to him. He replied, "It must be some holy relic written in Arabic, and as I don't understand Arabic, I will take it to the King's physician and ask him what is its history."

As soon as your father showed him the shirt, he said, falling down on his knees and worshipping it, crying, "O! Sahib, where did you find it?" On being told what I have already stated, he said, "If that old fool of a king had not thrown it off his back, when he fled from the Palace, he would not be a prisoner now, nor would I be one." The shirt is written in old Arabic, which I think is termed Kufi, and has not been in use for very—very many years—something like 150 or 200: about this I know nothing for certain.

Dr. T. Bloch exhibited specimens of a collection of ancient inscribed clay seals found by him at Basarh, the site of ancient Vaisali.

The following papers were read:—

1. *Regnal Years of Shah Alam, Bahadur Shah.*—By WILLIAM IRVINE, I.C.S., (retired).

In Part I of the Journal for 1902, p. 66, Major Wolseley Haig describes a copper coin of Shāh 'Ālam Bahādūr Shāh, issued by the mint of Eliopur. As read by Major Haig, this coin bears on one side the Hijra year 1122, and on the other the regnal year 3. The result is a discrepancy; for one or other of these two dates must be wrong. By an order recorded in Dānishmand Khān's *Bahādūr-shāh-nāmāh*, the official commencement of the reign was fixed for the 1st Zu'l Hijjah 1118 H. Thus we have:—

1st year, began	1st Zu'l Hijjah	1118,	ended	30th Zu'l Qa'da	1119
2nd year	"	"	1119,	"	1120

the Society should lend certain of the pictures and other valuable objects, that belong to it or are in its care, to the Trustees of the Victoria Memorial Hall for public exhibition there in accordance with the scheme of that institution. And I will now explain to you what has been settled, and the reasons which have led the Council to its decision.

You are aware that primarily that building is intended to commemorate Queen Victoria; but secondarily it "is intended to contain a collection of sculptures, paintings, arms, manuscripts, engravings and relics of every description—provided that they possess either conspicuous individual interest or historical value—connected with notable events or with the careers of remarkable men in the history of India in modern times." It is thus part of the scheme that the Hall should perpetuate the memory of the distinguished men in India, who added lustre to Queen Victoria's reign or who inaugurated movements that culminated in her reign. The Hall will become a National Gallery of British India. It is not intended, however, that the Hall should commemorate solely the glory of the British period, but also that it should perpetuate the fame of the preceding dynasties in modern India and of the great men who attained distinction under their rule, by exhibiting memorials of them and their times.

The Asiatic Society of Bengal, though founded before the late Queen's reign, maintained and increased its reputation during her reign; and its activity during her reign cannot well be dissociated from its foundation and early researches. The Society might therefore of itself expect (or even claim) that memorials of its most distinguished members should fittingly find a place in the Hall, and His Excellency the Viceroy has anticipated such an expectation by inviting the Society to lend (if a gift should be out of the question) certain of its treasures for exhibition in the Hall; and he suggested the following objects—

two portraits of its founder Sir William Jones (one of him as a youth and the other in middle age) (Nos. 67 and 41);

the portrait of Warren Hastings (No. 65);

the bust of James Prinsep, the decipherer of the old inscriptions (No. 19); and the old cannon of Mir Jumla (No. 2).

When considering His Excellency's suggestion, the Council fully appreciated the honour which he proffered the Society in allowing it a part in such a noble national institution, and have discussed the matter with the fullest sense of its importance to the Society.

The Society's objects of art consist broadly of two classes; first, objects that it has acquired and that belong to it absolutely; and secondly, those that compose the "Home Bequest." The Society

has three portraits of Sir Wm. Jones—one of him as a youth and two of him in middle age; and of these two, one (No. 41 in the catalogue) is the original, and the other (No. 71) is a copy. The original portrait of Sir Wm. Jones in middle age, the bust of James Prinsep (No. 19), and the cannon (No. 2) are the Society's own property; but the copy of Sir Wm. Jones in middle age and the youthful portrait (No. 67), and also the picture of Warren Hasting belong to the "Home Bequest." The Society's functions in dealing with the two classes are not the same, and it is necessary for me therefore to explain the difference regarding the "Home Bequest."

Mr. R. Home was an artist who came to India about the close of the eighteenth century; he became a member of this Society in 1797, and was its Secretary for two years from 1802. At that time the Society had a museum, and he contributed towards it. He settled down in Lucknow and made a considerable collection of pictures, books, casts, &c. Before his death he expressed the wish that his collection might become of public benefit in Calcutta. Accordingly, after his death, Col. Home and Capt. Home presented the collection to the Society in compliance with their father's wish, in order that the objects should be preserved in some public institution in Calcutta, where they might be properly attended to and be at all times open to public inspection. This Society accepted that trust on 5th November, 1834 (Journal, 1834, Vol. III. p. 524). The collection then is not the Society's property, but is held by the Society in trust for the purpose mentioned.

At that time the Society had its own museum in this building, the Home Collection was placed here and was always open to the public. In 1837 the Society asked the Government for pecuniary aid "to convert that institution into a public and national concern," but the E.I. Co. declined (Procdgs. 1837, p. 493). In May 1857 the Society went further and resolved that a proposal should be made to the Government for "the foundation at Calcutta of an Imperial Museum, to which the whole of the Society's collections, except the Library, might be transferred" (Procdgs, 1857, p. 232); and after some hesitation the Government approved of the proposal in May 1862. The scheme sanctioned provided for the establishment of "the Indian Museum," with space enough to meet various scientific requirements, and also to accommodate this Society with the whole of its Library, property, and business; and it was agreed that the Society's collections should be transferred to the Government, (Procdgs, 1862, p. 320). That was the beginning of the present Indian Museum; and when the quadrangular portion of it was finished, the Society's Archæological

and Natural History collections were handed over to the Museum in 1876. The Museum, however, had to meet other needs and could not accommodate the Society and its business; hence the Government gave the Society pecuniary compensation instead (Proedgs, 1876, pp.59 73-77).

The Society therefore remained in this, its own house, and the Home Collection remained here also; but since the departure of its own museum, these premises have ceased to be open to the public as freely as before. At present it can hardly be said that the Home Bequest is at all times open to public inspection; and indeed the fine picture of Warren Hastings is so little known, that in a recent life of that great Governor a list of all known portraits of him is set out and makes no mention of our picture. The intention of the donors would certainly be carried out better, if the portraits already mentioned belonging to the Home Bequest, be exhibited in the Victoria Memorial Hall.

The Council approved therefore of His Excellency's request; and learning also that the Trustees of the Memorial Hall would welcome other objects of interest, the Council proposed to offer some other memorials from its collections for exhibition at the Hall, namely—

- a fine MS. of the Gulistan (No. 114);
- a fine MS. of the Bādshāh-nāma (No. 118);
- three old copper-plate inscriptions (No. 126, found at Amgāchi; No. 135, found in the Sambhalpur district; and No 136 found, at Angāsi);
- a stone edict of King Aśoka (No, 25);
- a portrait of Shāh Ghāzi-ud-din- Haidar, king of Oudh (No. 29);
- a portrait of James Grant Duff, who wrote the "History of the Mahrattas" (No. 51);
- a painting of the interview {between the Governor-General and the Raja of Kota (No. 107); and,
- a portrait of Nasarat Jang, Nawab of Dacca (No. 91).

The last-mentioned portrait belongs to the "Home Bequest," and all the rest are the Society's property. The MSS. and old inscriptions are kept in safe custody, but the inscriptions have been deciphered and published in the Journal. All these objects will attract far more public notice and interest if exhibited in the Memorial Hall; while their removal will not really impoverish the Society's rooms, for there is not space enough at present for the effective display of all the Society's painting and engravings. As regards the portrait of the Nawab of

Dacca, the Society will fulfil its duty under the trust better by lending it for exhibition at the Hall.

It may be mentioned here that other institutions, as well as private persons, have been invited to contribute to the treasures to be exhibited in the Memorial Hall, and have cordially responded. A full list of the objects so given or lent is published by the Trustees of the Hall, and three such instances may be mentioned here as lending countenance (if any support be thought necessary) to the proposal which the Council now lay before the members; namely, the statues of Warren Hastings and Lord Cornwallis in the Town Hall, and the bust of Sir Charles Metcalfe in the late Metcalfe Library (now the Imperial Library) will be transferred to the Victoria Hall; and the fine picture of Sir Elijah Impey in the High Court will be lent to the Hall.

Before making its final decision, however, the Council took some steps to ascertain the opinion of resident members, in order that it might feel assured it might make the loan of the objects specified with the grace that general and cordial approval would confer on the loan; and I am glad to say on behalf of the Council that the proposal has obtained wide appreciation among members, while we have been enabled to safeguard the just pride of the members in the Society's memorials of those very distinguished men, of whom it does not possess duplicate memorials. Fortunately there are only two such cases, namely, the picture of Warren Hastings and the bust of James Prinsep; and the Council have resolved to have copies of these made. There will then be the original and a copy of each, as also there are of the picture of Sir Wm. Jones in middle life. As regards the picture of Warren Hastings, which belongs to the "Home Bequest," the Society would be better discharging the trust it has undertaken, if the original is exhibited at the Victoria Hall. As regards the other two objects the Council has deferred the business of deciding whether the original or the copy should be lent to the Hall, till the copies are obtained; though I may perhaps add that it appears to be generally held, that only the originals could be lent consistently with a due appreciation of the Memorial Scheme and the Society's share in it.

I have now therefore to report on behalf of the Council to the members, that the Council has resolved to contribute the objects which I have mentioned, in order that they may be lent to the Victoria Memorial Hall for an indefinite period for public exhibition there.

It will be understood from what has been mentioned of the Society's history, that the Council's present resolution does not involve any revolutionary, nor even any novel, idea; indeed it falls far short of the proposal which the Society itself advocated and pressed on the Govern

ment in 1857 and 1858, for by that proposal "the whole of the Society's collections, except the Library," would have been transferred to the Imperial Museum. The Library was the only collection excepted; hence all the Society's own pictures and the "Home Bequest" (without distinction of originals and copies) would have passed out of the Society's custody. The Indian Museum however was not large enough for all that was advocated; and only the Archæological and Natural History collections were given away. The department that would have provided for Art was omitted, and our Art collection was not transferred. We may feel sure that in making this loan to the Victoria Hall we shall be furthering one at least of the objects which the Society had at heart, when pressed so earnestly for the establishment of the Indian Museum, and gave so freely of its own treasures to be of public use there.

The Council wishes it to be understood and recorded that the objects selected are not given away. They will remain the property of the Society, and the arrangement is a loan; for the scheme of the Memorial Hall is not to gain the ownership of all the objects contemplated, but to collect and place on public exhibition objects of the highest interest, which are now scattered about and lost to general knowledge. Furthermore, the Council can place this arrangement on record in this building by setting up a tablet to this effect in this, the general meeting-room.

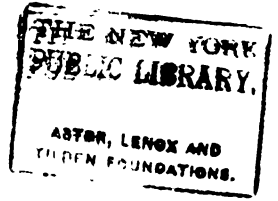
I may further mention that the proposal to lend these objects enables the Society to render to the public some acknowledgment of the munificent encouragement which it has received from the State through a very long series of years. It is well-known to all members that the Society receives liberal pecuniary grants from the Government annually, and that without such aid the Society would have found it very difficult, if not impossible, to accomplish all that it has actually undertaken. The present Viceroy has evinced special interest in the Society, and has recently made a most generous grant for the repair and improvement of this building.

The Council therefore make this announcement to the members in the expectation, that they will unanimously unite with it in taking advantage of the present unique and graceful opportunity, that they will declare their appreciation of the Victoria Memorial Scheme and of the noble part offered to the Society in a building that is destined to become the National Gallery of India, and that they will also associate themselves with the State, with other public bodies, and with large-hearted individuals, in lending some of the Society's treasures to complete and adorn the Memorial Hall, and thereby to extend the fame of its own most illustrious members.

REQUISITION.

A Requisition to the President to refer the matter of the Loan to the Victoria Hall to the whole body of members:—

J. H. Tull Walsh.
A. Alcock.
Dr. T. Bloch.
E. Vredenburg.
Arnold Caddy.
Jogindranath Vidyabhushan.
Jatindranath Mookerjee.
A. S. Allan
R. P. Ashton.
W. K. Dods.
A. Shrager.
John Bathgate.



PROCEEDINGS
OF THE
ASIATIC SOCIETY OF BENGAL.
FOR JUNE, 1904.

The Monthly General Meeting of the Society was held on Wednesday, the 1st June 1904, at 9 P.M.

THE HON. MR. JUSTICE F. E. PARGITER, B.A., I.C.S., President, in the chair.

The following members were present:—

Mr. R. P. Ashton, Mr. J. Bathgate, Dr. T. Bloch, Mr. I. H. Burkill, Mr. W. K. Dods, Mr. J. B. Drummond, Mr. D. Hooper, Kumar Ramessur Maliah, Captain L. Rogers, I.M.S., Mahamahopadhyaya Haraprasad Shastri, Dr. G. Thibaut, Babu Jogindra Nath Vidyabhushan, Pundit Satis Chandra Vidyabhushan, Mr. E. Vredenburg, Mr. J. Wyness.

Visitors:—Mr. L. L. Fermor, Mr. J. M. Maclaren, and Mr. H. K. Scott.

The minutes of the last Meeting were read and confirmed.

One hundred and twenty-three presentations were announced.

The Hon. Mr. Justice H. L. Stephen, Mr. J. F. Hewitt, Mr. B. R. Simpson, Mr. G. E. Pilgrim, Mr. G. H. Tipper, and Babu Gopal Chandra Chatterjee were balloted for and elected Ordinary Members.

A vacancy having occurred owing to the death of Dr. Otto Böhtlingk, the Council recommended Dr. G. A. Grierson for election as an Honorary Member at the next Meeting.

The scientific career of Dr. G. A. Grierson is so well known to the members of this Society that only a few words are needed in order to

explain the grounds upon which the Council proposes his election as an Honorary member. He has devoted himself almost entirely to the study of Modern Indo-Aryan Vernaculars, in which branch he is now the first authority. The great Linguistic Survey of India, carried on by him, which is now approaching its end, forms a land-mark in this branch of research, and has brought to light a vast number of important facts which are likely to throw much new and interesting light on the many problems connected with Indian Philology, History and Ethnography. During his residence in India, Dr. Grierson has been most intimately connected with this Society, the prosperity of which he has still much at heart. He contributed a great variety of valuable publications to the Journal and the Bibliotheca Indica, and for many years he was a member of Council and also for some time Philological Secretary.

T. BLOCH.

It was announced that the Hon. Dr. Gooroo Dass Banerjee had expressed a wish to withdraw from the Society.

The General Secretary reported the death of Mr. H. M. Rustomjee, an Ordinary Member of the Society.

The President announced that the Hon. Dr. Asutosh Mukhopadhyaya had kindly consented to continue to act as Treasurer in the place of Dr. C. R. Wilson, resigned.

The General Secretary reported the presentation of one coin from the Government of United Provinces of Agra and Oudh.

The President announced the following resolution of the Council regarding the rejection of certain books from the Society's library.

The Council adopt the report of the Library Committee which has gone carefully through the catalogue of books, and resolve—(1) that the books weeded out by the Committee be rejected and disposed of; the medical works being placed in a collection by themselves; (2) that the best way of disposing of them is by sale, and that they be accordingly offered for sale; (3) that the first offer be made to the Imperial Library, and that, if it purchases any of these books, the prices of the books be settled between the Council and that Library according to the price-catalogues of Quaritch and other booksellers; (4) that the next offer be made to the Calcutta University, the Presidency and other Colleges and the Medical College, and that the prices of books bought by them be settled similarly; (5) that the remainder of the rejected books be disposed of by public auction under some arrangement by

which members and others can bid, and by which real prices may be obtained if possible; and (6) that all books rejected and disposed of be first stamped plainly and indelibly with a special stamp.

This decision will be reported to the next General Meeting, and members who wish to inspect these books are welcome to do so, while objections may be made under rule 64, if necessary.

The following papers were read:—

1. *On the names hitherto unidentified in four Dutch monumental inscriptions at Ohinsurah.*—By DR. C. R. WILSON, M.A.

(Abstract.)

The initials W.A., R.V.H., R.B., and J.V.H. occur on tombs at Chinsurah. By a search in Dutch records at the Hague they have been identified as of Willem Andries, died 1668, Rogier van Heyningen, died 1665, Rogier Berenaart, died 1732, and Jacob van Hoorn who died in 1712.

2. *Proposed identification of the name of an Andhra King in the Periplus.*—By DR. C. R. WILSON, M.A.

(Abstract.)

The Periplus mentions, as Kings of Kalliene or Kalayan, Saraganes, and after him Sandanes. The former is identified with Satakarni, but while it is impossible to say which of the kings bearing this name is referred to, there can be no doubt that Sandanes should be corrected to Sandares or Sundares and identified with Sundara-Satakarni. The paper shows that the reign of this king falls exactly in the time which, on independent grounds, has been accepted as the date of the Periplus.

3. *The Asiatic species of ORMOSIA.*—By MAJOR D. PRAIN, I.M.S.

(Abstract.)

Since the publication of the list of the Asiatic species of *Ormosia* in the *Society's Journal*, Vol. lxi. 2, pp. 175 *et seq.*, in 1900, further material has become available from China and Burma. This material permits the completion of the description of *O. yunnanensis* from China, the record of a new species *O. striata* Dunn (in *Journ. Linn. Soc.* xxxv. 492) from China, and the record and description of a new species, *O. tavoyana* from Southern Burma.

4. *Notes on the Roxburghiaceæ, with a description of a new species of STEMONA.*—By MAJOR D. PRAIN, I.M.S.

(Abstract.)

In this paper a new species of *Stemona* collected in Burma in 1892

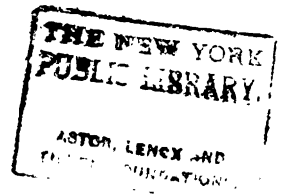
by a native collector belonging to the Royal Botanic Garden, and recently again communicated by Mr. Burkill, is described. In connection with his description, a key to the known species of *Stemona*, with notes on their nomenclature and distribution, and a note on the distribution of *Stichoneuron*, have been added to the paper.

5. *Note on the titles used in Orissa.*—By J. M. DAS. Communicated by the Anthropological Secretary.

(Abstract.)

The people of Orissa love titles; they were formerly granted by the King of Orissa, but later every big landholder exercised the privilege within his jurisdiction, and latterly they have even been obtainable by the election of caste men with or without the confirmation of the Raja of Puri. A list of these titles is given. New titles are, however, still being invented.





PROCEEDINGS
OF THE
ASIATIC SOCIETY OF BENGAL.

FOR JULY AND AUGUST, 1904.

The Monthly General Meeting of the Society was held on Wednesday, the 6th July, 1904, at 9-15 P.M.

THE HON'BLE MR. JUSTICE F. E. PARGITER, B.A., I.C.S., President, in the chair.

The following members were present:—

Mr. R. P. Ashton, Dr. J. C. Bose, Mr. I. H. Burkill, Mr. T. H. Holland, Mr. D. Hooper, Mr. T. H. D. La Touche, Kumar Ramessur Maliah, Mr. H. H. Mann, Dr. M. M. Masoom, Dr. P. C. Ray, Captain L. Rogers, I.M.S., Pandit Yogesa Chandra Sastree, Mahamahopadhyaya Haraprasad Shastri, Pandit Satis Chandra Vidyabhusana, Mr. E. Vredenburg, Lient.-Col. J. H. Tull Walsh, I.M.S.

Visitors:—Pandit Vindhyaesvariprasad Dube, Mr. L. L. Fermor and Mr. H. E. Stapleton.

The minutes of the last meeting were read and confirmed.

Seventy-seven presentations were announced.

Maulavi Sayid Anlad Hasan, Mr. C. A. C. Streatfeild, Mr. W. S. Talbot, Mr. A. P. Charles, Mr. Muhammad Rafiq, Mr. Brajendra Nath De and Mr. R. O. Lees were balloted for and elected Ordinary Members.

Dr. G. A. Grierson was balloted for and elected an Honorary Member.

It was announced that Mr. A. Garrett had expressed a wish to withdraw from the Society.

The President announced that Captain L. Rogers, I.M.S., had been appointed to serve on the Finance Committee, in the place of Mr. J. Bathgate, resigned.

The President announced that the Council had appointed Babu Asutosh Dhar as cashier in the place of Babu Nriya Gopal Basu, retired on pension.

The General Secretary read the following circular letter from Messrs. Breitkopf & Härtel, relative to Popular Chants used at feasts or official ceremonies, and stated that the Council had resolved to take up the subject in connection with Journal Part III:—

Leipzig, le 19 Mars 1904.

MONSIEUR,

Le chant peut être considéré comme l'expression la plus parfaite de l'âme d'un peuple. Le mouvement actuel de la civilisation et de la science, qui tend à rapprocher les diverses nations, s'est fait sentir dans l'étude de la musique comme dans d'autres domaines, et l'on s'aperçoit chaque jour davantage de l'intérêt qu'offre l'examen comparatif des chants populaires et nationaux. C'est ainsi que l'Empereur d'Allemagne a fait rassembler les chants populaires allemands, autrichiens et suisses. C'est une tentative qu'il serait utile de poursuivre, en l'étendant à tous les pays et à toutes les races. Nous inspirant de cette idée, nous nous proposons de constituer un recueil des chants nationaux de tous les pays, qui ne serait plus une simple compilation comme on en a si souvent essayé, mais qui s'attacherait à retracer l'histoire du texte et de la musique de chaque hymne. Un recueil historique ainsi conçu permettrait d'embrasser d'un seul coup d'œil non seulement chaque chant national dans son développement isolé, mais encore le rôle actuel de la musique populaire dans l'histoire universelle. Nous avons chargé de la partie scientifique de cette entreprise Monsieur le Dr. H. Abert, de l'Université de Halle (Allemagne), qui est avantageusement connu par ses travaux sur l'histoire de la musique allemande, grecque et italienne.

Etant donné le puissant intérêt que présentent vos hymnes nationaux, nous nous permettons de vous prier de bien vouloir nous donner :

1° le texte de votre hymne national ou des chants populaires ayant une portée patriotique (exécutés dans les fêtes et cérémonies

officielles), et la traduction soit en français, en anglais, en allemand, en italien ou en espagnol ;

2° la musique de cet hymne dans la forme usitée chez vous. Dans le cas où il existerait, à côté de l'édition pour chant avec accompagnement d'un instrument, une autre avec accompagnement d'orchestre ou pour orchestre seul, cette dernière nous serait également bienvenue. Des éditions imprimées, lorsqu'il y en a, sont préférables aux copies. Nous vous serions reconnaissants de nous les envoyer, avec facture, ou de nous indiquer l'adresse de l'éditeur ;

3° l'histoire du texte et de la musique : nom de l'auteur et du compositeur ; les circonstances politiques ou sociales dans lesquelles les chants furent composés, et le sort qu'ils ont eu depuis leur publication.

Nous vous prions de bien vouloir nous fournir ces renseignements dans l'une ou l'autre des principales langues européennes mentionnées ci-dessus.

Nous osons espérer que vous voudrez bien nous aider à être aussi complets que possible, et que vos bonnes indications nous permettront de faire à vos chants nationaux la place qui leur revient dans un ouvrage comme celui que nous préparons.

Veuillez agréer, Monsieur, avec nos remerciements anticipés, l'assurance de notre considération distinguée.

BREITKOPF & HÄRTEL.

Prière d'adresser les communications à Monsieur le Dr. H. Albert, à l'Université de Halle s. Saale (Allemagne), Richard Wagner-Strasse 26.

The proposal to lend certain portraits and other objects of interest to the Victoria Memorial Hall for public exhibition there, of which intimation had already been given by circular to all members, was brought up for final disposal. The votes of the members were laid on the table and the President requested any members who had not expressed their opinion to take the present opportunity of filling in voting paper. Five such papers were filled in and with the 154 returned by members were scrutinized. The President appointed Messrs. T. H. D. La Touche and R. P. Ashton to be scrutineers. The Scrutineers reported as follows:—

For 127.
Against 31.
Carried.

Pandit Yogesa Chandra Sastree exhibited an image of Jvara (the god of fever).

This is the image of Jvara (god of fever). This deity is commonly known in India by the name of *Jvarasura* and is worshipped by the Hindus when epidemic fever sets about in the country.

This image, like that of Manju Nāth, a Buddhist deity which I exhibited here before, has got three heads, having three eyes on each, six arms; but it differs from that deity in respect of its legs which are three in number. In three of its right hands there are—an arrow in the first, a battle-axe in the second, and a mace in the third. In the three left hands there are—a bow in the first, a rope in the second, and a pitcher in the third.

The use of these weapons, as it is generally known, is that when a person falls a victim to Jvara, he (gvara) binds him (victim) with his rope and beats him with his mace and cuts the victim's veins with his axe, after which he takes away the victim's blood in his pitcher. If the person try to run away he (Jvara) shoots him with his arrow.

As to the origin of this deity it is stated in most of the Purāns and in *Charak*, *S'usrat* and other works of the Hindu medical science, that Jvara originated from the breath of *Rudra* who was angry at having been insulted by *Daksha*, the father-in-law of *S'iva*.

This version of the origin of Jvara may be considered irrational and unscientific at the first sight; but if carefully considered it would appear that the scientific and most rational explanation is involved in the very conception of it. Jvara is commonly defined by all the nosologists to be the heat of the body caused by irascible state of the three humours, viz., wind, bile and phlegm. Moreover, every one, when angry, conceives heat in his body, which also is a sort of (Jvara or fever). Hence it is obvious that the primary cause of Jvara fever) is anger as has been stated in the Purāns.

The following papers were read :—

1. *Totemism among the Khonds*—By J. E. FRIEND-PEREIRA, B.A. Communicated by the Anthropological Secretary.
2. *On a new Scirpus from Beluchistan and certain of its allies.*—By J. R. DRUMMOND, B.A., I.C.S.

The Monthly General Meeting of the Society was held on Wednesday, the 3rd August, 1904, at 9-15 P.M.

THE HON. MR. JUSTICE F. E. PARGITER, B.A., I.C.S., President, in the chair.

The following members were present :—

Mr. J. Bathgate, Mr. I. H. Burkill, Mr. T. H. Holland, Mr. D. Hooper, Mr. T. D. La Touche, Mr. H. H. Mann, Mr. C. Michie, Mr. C. S. Middlemiss, Mr. G. E. Pilgrim, Major D. Prain, I.M.S., Captain L. Rogers, I.M.S., Pandit Yogesa Chandra Sastree, Mr. G. H. Tipper, Pandit Satis Chandra Vidyabhusana, Mr. E. Vredenburg, Mr. J. Wyness.

Visitors :—Mr. N. Annandale, Mr. L. L. Fermor, and Mr. J. McNeil.

The minutes of the last meeting were read and confirmed.

Forty-eight presentations were announced :—

Mr. D. B. Parasnis, Major W. J. Bythell, R.E. and Mr. L. Leigh Fermor were balloted for and elected Ordinary Members.

It was announced that Mr. E. V. Gabriel has expressed a wish to withdraw from the Society.

The President announced that Mr. R. O. Lees had been elected a member of the Council in the place of Mr. C. R. Wilson, resigned.

Mr. E. Vredenburg exhibited specimens of fossil oysters and other marine shells obtained from excavations in Clive Street, Calcutta.

Mr. G. E. Pilgrim exhibited specimens of Pleistocene fossil bones obtained at about 80 feet below the Ganges river at Allahabad.

The following papers were read :—

1. *The Later Mughals (1707-1803)*.—By WILLIAM IRVINE, I.C.S., (retired).

(Abstract.)

This paper is a continuation of Mr. Irvine's articles on the Later Moghuls. It narrates the events during the short reigns of Rafia-d-Darajāt and Rafia-d-Daulah, who were set up as puppet kings in 1719 A.D. by the Sayyids after the assassination of Farrukhsiyar. The

narrative is carried up to the beginning of the reign of Muhammad Shāh.

2. *On Dioscorea birmanica—a new species from Burma, and two allied species.*—By MAJOR D. PRAIN, I.M.S., AND I. H. BURKILL.

(Abstract.)

A common wild yam of Burma is described under the name of *Dioscorea birmanica*. An ally from South-West China is described under the name of *D. yunnanensis*, and reference is made to a plant of Perak which also seems to be allied.

3. *Rusot: An ancient Eastern Medicine.*—By DAVID HOOPER.

(Abstract.)

Rusot, identified with the Lykion of the ancient Greeks, is an extract of the wood of several species of Berberis. Several examples preserved in the Indian Museum have been chemically examined, and are found variable in the amount of berberine and other matter which they contain.

4. *Notes on the Khasis, Syntengs and allied Tribes inhabiting the Khasi and Jaintia Hills District in Assam.*—By MAJOR P. R. T. GURDON, I.A.

(Abstract.)

The general appearance and mode of life of these tribes is described. They are matriarchal, the youngest daughter inheriting from the mother, or failing daughters, the youngest niece, or again failing daughters and nieces, the youngest female cousin. They propitiate the spirits of departed ancestors by sacrifice, and worship them by memorial stones. The Khasis are divided into clans named after natural objects (totems apparently not now worshipped). They marry, in strict exogamy, the husband remaining of little account: he visits his wife for many years in her mother's house; he never becomes admitted into his wife's clan; divorce is easy, and the women enjoy considerable freedom in their sexual relations. It is remarkable that the sex of the Supreme Being is not definite in the ideas of these people, and that with their matriarchy in their worship, they call on spirits of both sexes, viz., the primeval ancestress of the family, the maternal great-uncle, and the great-grandfather. The birth, marriage, divorce, death and other ceremonies are described, and an account of the memorial stones given.

PROCEEDINGS
OF THE
ASIATIC SOCIETY OF BENGAL.

FOR NOVEMBER, 1904.

The Monthly General Meeting of the Society was held on Wednesday, the 2nd November, 1904, at 9-15 P.M.

The Hon. Mr. JUSTICE F. E. PARGITER, B.A., I.C.S., President, in the chair.

The following members were present:—

Mr. I. H. Burkill; Mr. J. Bathgate; Mr. Hari Nath De; Mr. F. Doxey; Mr. D. Hooper; Mr. T. H. D. La Touche; Mr. A. H. Lewes; Mr. J. Macfarlane; Kumar Ramessur Maliah; Mr. W. H. Miles; Captain L. Rogers, I.M.S.; Mr. C. Saunders; Mr. H. E. Stapleton; Pandit Satis Chandra Vidyabhusana.

The minutes of the last meeting were read and confirmed.

Seventy-four presentations were announced.

Mr. Nelson Annandale, Munshi Ahmad Hosain Khan, Mr. H. E. Stapleton, Mr. N. L. Hallward, Mr. W. B. de Courcy and Col. Longe, R.E., were announced to have been elected Ordinary Members during the recess in accordance with Rule 7.

It was announced that the Hon. Mr. W. C. Macpherson and Mr. J. C. Faunthorpe had expressed a wish to withdraw from the Society.

The General Secretary reported the death of Dr. C. B. Wilson, an Ordinary Member of the Society.

At the request of the Council, Mr. H. R. James of the Patna College, contributed an obituary notice of Dr. Wilson:—

CHARLES ROBERT WILSON.

(*born March 27th, 1863; died July 24th, 1904.*)

Literature and education in India have suffered a great loss in the death of Charles Robert Wilson at the comparatively early age of 41 years. His loss will be very specially felt in this Society, with which he had been connected since 1891, and which he served in various capacities.

Mr. C. R. Wilson was elected a member of the Society on the 6th of May 1891. In January 1892 he took charge of the duties of Philological Secretary and editor of the Journal, Part I. In the year 1893 he was elected General Secretary of the Society, and continued in that office till 1897. During the years 1902, 1903 and part of 1904, he was Treasurer of the Society.

The following papers were contributed by Mr. Wilson:—

1. Note on an old Picture of the Riverside of Calcutta in 1788,—published in Proceedings for August 1892.
2. Note on the Topography of the River in the 16th Century from Hugly to the Sea as represented in the *Da Asia de Barros*,—published in Journal, Part I, No. 2, 1892.
3. The Topography of Fort William,—published in Journal Part I, No. 2 of 1893.
4. An unrecorded Governor of Fort William,—published in Journal Part I, No. 2 of 1898.
5. On the Names hitherto unidentified in our Dutch Monumental Inscription,—published in Journal Part I, No. 3, 1904.
6. Proposed identification of the name of an Andhra King in the *Periplus*,—published in Journal Part I, No. 3, 1904.

In all his connection with this Society, Dr. Wilson will be remembered for his remarkable energy, his catholic sympathies, and for the extraordinary enthusiasm which he brought to bear on anything of whatever nature, which had once engaged his interest. He had also the true instinct for research. Outside the Society his more solid literary labours include the well-known two volumes of his 'Early Annals of the English in Bengal' and his not less familiar work in connection with the discovery and elucidation of the sites in the Old Fort, Calcutta. In both these undertakings his wonderful power of work, and his masterly grasp of the thing he had taken in hand, are displayed with conspicuous success. The two volumes of Annals have a permanent value,

while his re-creation of the Old Fort is a piece of work much needing to be done, and once for all well done.

But important as are these services to history and to archæology—and therefore to this Society—Dr. Wilson's highest distinction lies in another field and is of such a nature as to merit the grateful remembrance of the people of Bengal at large. This is his educational work, especially as shown in that rare quality, a warm personal sympathy with the individual student. In this respect his educational career has been unique. In his love for and devoted service to the student he stands alone in Bengal '*nec viget quidquam simile aut secundum.*'

This distinguishing characteristic was manifested at once when he first came out and started work at the Dacca College in 1887. Nothing is more difficult in educational work in India than to make a personal interest in students living and practical. This difficulty hardly existed for C. R. Wilson. He soon made a name for himself in the student world, and even excited some criticism without it. When he went to Calcutta in 1890, the same devotion was shown on a larger scale and its results remain permanently in the Calcutta University Institute. This institution was started by Babu Protap Chandra Mazumdar, the veteran leader of the Brahmo Somaj, and was at first called the Society for the Higher Training of Young Men. But it had but a languid existence under that title. It was Mr. Wilson's energy as Secretary during 1893—1900 which, together with the interest taken in the scheme by Lord Lansdowne, Mr. Risley, Sir Charles Elliott and other benefactors gave it its present form. Mr. Wilson also started a paper—the *Calcutta University Magazine*—intended to be an organ of university opinion, which, though fallen on evil days, still exists. But it was his personal interest in and liking for Bengali students, and a real liberality and kindness towards those needing help which constitute Mr. Wilson's best claim to the grateful recollection of the Indian community. The various expressions called forth by his death are sufficient testimony that this has been felt and acknowledged.

But with all his sympathy for Indian students, Mr. Wilson did not fail to see the weak points in the characters of most of them, or the startling defects in their education as promoted by the Calcutta University. He was one of the first to advocate the thorough reform of the Calcutta system. Early in the nineties he, along with some others including the present Bishop of Madras, drew up a scheme with a view to practical reform. He was closely interested in the work of the Universities Commission and hopeful that some good would ultimately result

from its labours. In a letter dated April 23rd of this year, he writes : " I think it is clear that the fate of education depends altogether on Government. If they appoint well-selected senates and strengthen the teaching department everywhere, we may do better things. I should hope, at any rate, that the standard of the Entrance and F.A. Examinations will be raised, the size of classes reduced and the quality of the men improved." Now that reform has become a nearer reality he can ill be spared. For C. R. Wilson had the larger and more inspiring conception of university teaching. He thought a Professor existed for something more than the convenience of a College routine. He thought the Principalship of a College should be a position of real influence and distinction, not an intermediate step in an official hierarchy. He had, moreover, grasped two truths not, perhaps, very often practically recognised in Bengal. The one was, that educational work makes as high claims in India as elsewhere, and demands as complete a self-surrender and as thorough an identification of the teacher with the interests of the taught: that this duty is as binding at a Government College as under other conditions of service, and as possible of realisation. The other was that when a thing ought to be done, it can be done. He had not idly studied the Kantian ethic. Teachers, he knew, never can be mere units in a department. They must, if they are to do their work in any true sense, be independent sources of life and energy. They require a larger discretion than other Government servants. This larger freedom, by a happy combination of circumstances and temperament, C. R. Wilson was able to realise to a great extent. He was out-spoken to the point almost of brusqueness, and a mixture of simplicity and fearlessness carried him to the attainment of ends which, to minds more normally constituted, might have seemed denied by the conditions of the case. He did not parade his religious principles, but it was not possible to know him without recognising that in these was to be sought the mainspring of his character.

When Mr. Wilson went to Patna as Principal in 1900 (after previously officiating at the Government College there for a short time in 1897-98) he identified himself wholly with the duties of his new position and was able to show his unsparing devotion to the welfare of those under his charge. He went to Patna at a critical time, when the new buildings of the Behar School of Engineering were in course of completion and about to be opened. Without neglecting the older Arts College, he threw himself heart and soul into the work involved by the new—which he himself said more than doubled the responsibilities of

the Principalship—fought its battles, watched over its interests, and contributed very greatly to its ultimate success. Unfortunately plague came to Patna in 1901 and caused great anxiety to all in responsible positions through the alarm and confusion which prevailed. It would seem that the work and anxiety entailed on Mr. Wilson from these various causes laid the seeds of weak health which have resulted in his untimely death. He was very ill in July 1900—so ill that in spite of a great desire to do so—he was unable to be present at the ceremony, when in August of that year the Lieutenant-Governor, Sir John Woodburn, opened the Engineering School. Mr. Wilson got over his illness, but it left him weak, and the plague in 1901 brought fresh strain, so that in March 1902 he was feeling generally overtaxed and was intending to take a year's furlough. Just when his plans were laid for this purpose, came the offer of the post at the Record Office which he held at the time of his death. Though it took him from education, it was a post thoroughly suited to his tastes and abilities and the offer was made in a very flattering manner. He decided to give up his furlough and accept it. He took up his new work with eager interest; but his health failed more and more, though he was home for a few weeks in 1902 and again in 1903. It was while home in 1903 that he took the new degree of doctor of letters at Oxford. He had qualified for and taken the B. Litt. in 1901. In November 1903, the Chinese carpenters had completed under his instructions, the beautiful model of the Old Fort which is now placed in the Museum. He was also able to render efficient help to the Viceroy in his collections for the Victoria Hall—help which was handsomely acknowledged by Lord Curzon in his speech at the Museum in March 1904. It is pleasant to remember now that Dr. Wilson was thoroughly happy in this new work, and often contrasted the amenities attaching to it with the rubs and jars and rebuffs of the life educational. But his friends were shocked at his increasing emaciation. In May 1904, he went to Darjeeling, but instead of getting stronger he grew worse and he was ordered home. He was terribly weak throughout the voyage; but when he reached England and his friends, the doctors held out good hopes of his ultimate recovery. This hope has proved vain; the end came peacefully in his sleep on the night of 24th July, 1904.

It may well be supposed that his best work was yet to be done. But the work he has accomplished is considerable in amount and of varied nature, testifying to the versatility of his talents. Besides the two volumes of *Annals* there was the text-book in *Ethics*, prepared in collaboration with the Rev. E. M. Wheeler in 1896. Though

confessedly written to a syllabus for lecture purposes, it has merits of its own and served its purpose. Of much higher literary value and practical usefulness is the little history of India published in 1900. Simple in design and limited in range as this little book may seem, it is perfect in its kind and is unique among the various short histories prepared for the Indian school-boy. It does what none of the others attempts, presents the really salient features of the story of the Indian peninsula, in the way best calculated to win a child's interest. The Indian school-boy could not better be introduced to a study and love of India—broadly viewed. The versatility and gifts of the man whose early death we deplore are nowhere more conspicuous than in this little book. Those who know him best will recognise that there were elements of real greatness in his character and will lament the loss of what else he might have done had he lived. As already said he will be specially missed at the present time.

“Fame is the spur that the clear spirit doth raise
—That last infirmity of noble mind—
To scorn delights and live laborious days ;
But the fair guerdon when we hope to find
And think to burst out into sudden blaze,
Comes the blind Fury with th' abhorred shears
And slits the thin-spun life.

“But not the praise.”

The President announced :—

1. That in accordance with Rule 38 of the Society's Rules, the names of Captain W. A. Cuppage, I.A., Rai Narsingh Chandra Dutt, Babu Purnendu Narain Singh, Lala Shyam Sunder Srivastava, Babu Suryanarain Rao, and Babu Manmathanath Chakravarti, had been posted up as defaulting members since the last General Meeting and will be removed from the member list.
2. That Mr. J. Macfarlane having returned from leave had taken over charge of the duties of the General Secretary from Lieut.-Col. J. H. Tull Walsh, I.M.S.
3. That during the absence of Dr. E. D. Ross, on short leave, Mr. Macfarlane had agreed to carry on the duties of the Anthropological Secretary.
4. That owing to the Hon'ble Mr. Justice Asutosh Mukhopadhyaya leaving Calcutta for a few weeks, the Council had appointed Mr. W. K. Dods to carry on the duties of Treasurer.

5. That Mr. T. H. D. La Touche, Captain L. Rogers, I.M.S., and Mr. H. E. Stapleton had been appointed to serve on the Library Committee of the Society during the present year.

The General Secretary reported the presentation of the following coins :—

Six coins from the Bombay Branch of the Royal Asiatic Society, forwarded with their letter, dated 14th June, 1904.

One coin from Government of United Provinces, forwarded with their letter No. $\frac{3004}{x-c}$ 13-1, dated 16th July, 1904.

The General Secretary read a report on a find of 110 coins forwarded by the Collector of Malda with his letter No. 700G, dated 3rd December, 1902, under Treasure Trove Act.

The find consists of :—

Coins of Independent Bengal	...	...	2
Coins of Sher Shah of Delhi	...	...	63
Coins of Islam Shah of Delhi	...	...	42
Coins of Muhammad Adil of Delhi	...	...	3
			<hr/>
			110
			<hr/>

The following papers were read :—

1. *Some Archæological remains in Bishnath.*—By WALTER N. EDWARDS.

(Abstract.)

The old earthworks round Bishnath and Pertabghur are described as well as the Buroi Fortification.

The two towns were formerly populous. The old name of the former was Visvanatha, while the latter certainly was Pretappur. The remains of various temples at Bishnath are traced.

2. *Noviciæ Indicæ XXIII.—Four orchids new to the Indian Flora.*—By D. PRAIN.

(Abstract.)

Descriptions of two new species *Microstylis Cardoni* from Chota Nagpur, and *Eulophia Campbellii*, from Manbhum and Singbhum; and also of *Lecanorchis japonica*, Bl., and *L. malaccensis*, Ridl., orchids now first added to the Indian Flora.

3. *Some Kolarian riddles current among the Mundaris in Chota Nagpur, Bengal.*—By REV. PAUL WAGNER. *Communicated by the Philological Secretary.*

(Abstract.)

A collection of one hundred Kolarian riddles in the vernacular and translated.

4. *Noviciæ Indiæ XXIV.—Some new Indian plants.*—By D. PRAIN.

(Abstract.)

Some notes on species of the orders—Anonaceæ, Sterculiaceæ, Celastraceæ, Leguminosæ, Rosaceæ, Combretaceæ, Orobanchaceæ, Labiatae and Monotropæ, together with descriptions of the following new species:—*Sterculia Kingii*, *Euonymus kachinensis*, *E. subsulcatus*, *E. viburnoides*, *E. Lawsonii*, *Celastrus membranifolia*, *C. Listeri*, *Gymnosporia sikkimensis*, *Cnidia Mansoni*, *C. Havilandi*, *Humboldtia Bourdilloni*, *Geum sikkimensis*, *Potentilla sikkimensis*, *Pyrus Kurzii*, *Terminalia burmanica*, *Christisonia Scortechinii* and *Elscholtzia kachinensis*.

5. *A Language map of West Tibet with notes.*—By A. H. FRANCKE.

(Abstract.)

The distribution is given of the Rong, Leth, Sham, Purig and Balti dialects in the Indus and Shayog valleys and in Zangskhar and Rubshu; and the chief characteristics are mentioned showing that the further we advance towards the North West the more is the pronunciation in agreement with written character. The tone system is not yet quite extinct in the Indus Valley.

North West of the range of Tibetan dialects are the Dard dialects, and it seems evident that formerly they extended further up the Indus Valley, and that the North Western parts of Ladakh as far as Saspola were peopled by Dards who since their colonisation of the valley have been tibetanised. We do not know what tribes they found there when they came, which was apparently from Gilgit. Traces of the Dard language still persist in the parts where they settled.

6. *Additions to the Collection of Oriental Snakes in the Indian Museum, Calcutta.*—By NELSON ANNANDALE.

(Abstract.)

A paper adding to our knowledge of the distribution of Typhlopidae, Uropeltidae, Colubridae and Viperidae in India.

7. *Some Notes on the Bahmani Dynasty.*—By MAJOR WOLSELEY HAIG, I. A.

(Abstract.)

Legends connect the cognomen Bahmani with the name of the priestly caste of the Hindus, but the name, originally written in the time of the founder of the Dynasty Bahman, though by his successors Bahmani, is obtained from Bahman the son of Isfandiyar their ancestor. The founder Alā'-u-d-din Hasan Gangu Bahmani had, according to historians, four sons—one of whom is never named: he seems to have been Dā'ūd who reigned as fourth of the line after his nephew Mujahid Shah. Mujahid was one of the sons of Dā'ūd's elder brother: a second son of whom is only once named. Muhammad Shah II the fifth of the dynasty was the son of Mahmud Khan and grandson of Alā'-u-d-din: Firuz Shah and Ahmad Shah, the eighth and ninth kings of the dynasty, are likewise grandsons—sons of Ahmad Khan who never reigned.

Firuz Shah was deposed by his brother in A.H. 825 and left several sons. The eldest Hasan Khan was unambitious and did not oppose, it seems, his uncle's designs. Mubarak Khan was a younger son, and his daughter the princess Makhdūma-i-Jahan was married to the eleventh king of the dynasty and became the mother of Nizam Shah and Shamsu-d-din Muhammad Shah III, twelfth and thirteenth kings. Ahmad Shah had seven sons, the eldest of whom Alā'-u-d-din Ahmad Shah II reigned after him. Ahmad Shah II had three sons and several daughters. His eldest son, Humayun Shah Zalim, succeeded him as eleventh king and put his brothers to death.

The son of Shamsu-d-din Muhammad Shah III is stated to have changed his name on ascending the throne: becoming from Ahmad, Shahabu-d-din Mahmud Shah; the reason of this has never been explained. He had three sons who reigned after him. The date of the birth of the eldest is correctly A.H. 899. Kalimu-'lah the eighteenth and last of the dynasty may have been a son or may have been a younger brother of Ahmad Shah III.

8. *On Dioscorea deltoidea*, Wall., *D. quinqueloba*, Thunb., and their allies.—By D. PRAIN and I. H. BURKILL.

(Abstract.)

Diagnoses of the following species:—*D. Prazeri* (Upper Burma), *D. sikkimensis* (Sikkim and Nepal), *D. deltoidea*, Wall. (North-Western Himalaya), *D. panthaica* (Yunnan), *D. acerifolia*, Uline (Central China), *D. septemloba*, Thunb. (Japan), *D. nipponica*, Makino (Japan), *D. quinqueloba*, Thunb. (Japan), *D. tenuipes*, Franch. and Sav. (Japan), *D. Yokusai* (Japan), and *D. enneaeura* (Central China).

9. *Ashrafpur Plates of Devakhadga*—By GANGA MOHAN LASKAR.
Communicated by the Philological Secretary.

(Abstract.)

The two copper plates referred to were found in 1884 or 1885 in the Dacca District. A description of the plates is given, and a translation of as much of the inscription on them as is preserved. The plates relate to the gift of land to Buddhist monasteries by King Devakhadga to secure the longevity of his son Rājarāja Bhaṭṭa, and by the said son. Who these princes were is not known. The line seems to have reigned in the eight and ninth centuries of the Christian era.

Prof. Vidhyabhusana thought that the characters in which the inscription is written belong to Western Bengal and that the plates therefore must have been brought over from that part of the country to Eastern Bengal. A glance at the tables appended to Bühler's Grun-driss, Vol. II, would show any one that the letters in which the inscriptions are written are the ordinary Gupta characters which were common not only in Western Bengal but all over North India at a certain period. Mr. Harinath De gave the following additional reasons for coming to the conclusion that the plates must have belonged to Eastern Bengal:—

- (1) The identification of *Talapāṭaka* in Plate B with *Talpara* a village near Ashrafpur where the plates were found.
- (2) The mention of *drona*—a very common land-measure in Eastern Bengal.
- (3) The fact that the plates were found deep under ground, beneath a huge mound which must have marked the site of the Monastery of Sanghamitra to which the lands were conveyed.

In conclusion he differed from Babu Ganga Mohan Laskar with respect to the *status* of the Khadga Dynasty. In Plate B mention is made of *vatsanāga pāṭaka* conveyed by the *Vrihat parameshwara*? What did this last word mean? He thought it must refer to the father of Rājarāja and not to any *over-lord*, in which case the name of the monarch would have been mentioned. It seemed probable that the usual oriental sense of decorum prevented the crown-prince from needlessly naming his royal father. King Devakhadga being therefore mentioned as the *Vrihat-parameshwara*, the dynasty therefore must have been of considerable importance.

The President brought the discussion to a close by making some observations as to the probability of the plate belonging to Eastern Bengal.

PROCEEDINGS
OF THE
ASIATIC SOCIETY OF BENGAL.

FOR DECEMBER, 1904.

The Monthly General Meeting of the Society was held on Wednesday, the 7th December, 1904, at 9-15 P.M.

THE HON. MR. JUSTICE F. E. PARGITER, B.A., I.C.S., President, in the chair.

The following members were present:—

Manlavi Abdul Wali, Mr. N. Annandale, Mr. I. H. Burkill, Major W. J. Bythell, R.E., Mr. B. L. Chaudhuri, Mr. G. C. Dudgeon, The Hon. Mr. A. Earle, Mr. D. Hooper, Dr. W. C. Hossack, Mr. J. Macfarlane, Mr. E. D. Maclagan, Kumar Ramessur Maliah, Mr. H. H. Mann, Dr. M. M. Masoom, The Hon. Mr. Justice Saroda Charan Mitra, Captain L. Rogers, I.M.S., Dr. E. D. Ross, Pandit Yogesa Chandra Shastree, Mr. E. H. Stapleton, Pandit Satis Chandra Vidyabhushana, Mr. E. Vredenburg.

Visitors:—Mr. W. M. Aders, Babu Mahendranath Gupta, Mr. M. Hill, and Rev. A. W. Young.

The minutes of the last meeting were read and confirmed.

Twenty-four presentations were announced:—

Mr. E. G. Hill, Mr. R. Nathan and Rev. S. Eudle were balloted for and elected Ordinary Members.

The General Secretary reported the death of Dr. Emil Schlagintweit, the only Corresponding Member of the Society.

The President announced :—

1. That the Hon. Mr. Justice Asutosh Mukhopadhyaya and Dr. E. D. Ross, having returned to Calcutta had taken over charge of the duties of Treasurer and Anthropological Secretary from Mr. W. K. Dods and Mr. J. Macfarlane, respectively.
2. That Dr. Ross had been appointed to officiate as Philological Secretary during the absence of Dr. T. Bloch.
3. That Mr. N. Annandale had been appointed Anthropological Secretary in the place of Dr. Ross.

The General Secretary read a report on a find of 6 coins forwarded by the Deputy Commissioner of Sangor with his letter No. 2296, dated 23rd June 1904, under the Treasure Trove Act.

The finds consists of :—

Rupee of Shahjahan of Tatta mint	...	...	1
Rupees of Aurangzeb of Surat mint	...	...	3
Rupee of Khambay (Cambay) mint	...	...	1
Rupee of Lucknow mint	...	...	1
			6
			—

The General Secretary reported the presentation of the following coins :—

9 coins from the Bombay Branch of the Royal Asiatic Society, forwarded with their letter dated 26th September, 1904.

1 coin from the Deputy Commissioner of Bhandara, forwarded with his letter No. 3979, dated 30th September, 1904.

4 coins from the Government of United Provinces, forwarded with their letters Nos. $\frac{3988}{x-c/28-1}$, $\frac{4064}{x-c/48-1}$, $\frac{4297}{x-c/44-1}$ dated 11th and 15th October and 7th November, 1904.

The Philological Secretary read an abstract relative to the Fourteenth International Congress of Orientalists to be held at Algiers in April, 1905.

The Oriental Congress, which met at Hamburg in 1902, fixed on Algiers as the meeting-place of the 15th Congress, and this is to take place in 1905 during the Easter holidays, under the patronage of the Governor-General of Algeria.

OFFICERS.

President.—M. René Basset, Directeur de l'École Supérieure des Lettres d'Alger, 77 rue Michelet, Mustapha, Algiers.

General Secretary.—M. Edmond Douffet, Professor in the École Supérieure des Lettres, Parc de Fontaine-Bleue, Mustapha Supérieur, Algiers.

Treasurer.—M. David, Chief of the Governor-General's Private Secretariat, Palais d'Hiver, Algiers.

SUBJECTS.

- I. India.—Aryan Languages and Indian Languages.
- II. Semitic Languages.
- III. Mussulman Languages (Arabic, Turkish, Persian).
- IV. Egypt: African Languages: Madagascar.
- V. Far East.
- VI. Greece and the East.
- VII. African Archæology and Mussulman Art.

The titles of papers intended to be read at the Congress should be sent either to the President of the Section to which they relate, or to the General Secretary, or the Assistant Secretaries.

The subscription has been fixed at 20 francs. Wives or female relations of members of the Congress who may accompany them will have a right to a ladies' ticket, value 10 francs. This ticket will entitle the holder to all the concessions which will be eventually granted to members of the Congress by Railway and Steamer Companies, but will not entitle them to the publications of the Congress.

Letters and enquiries concerning the Congress should be addressed to the General Secretary or one of the Assistant Secretaries. Names of intending members may now be sent to the Treasurer, and should be accompanied by the subscription, without which they will not receive attention. For the convenience of future members of the Congress they may also be addressed to—M. LEROUX, *Bookseller, 28 rue Bonaparte, Paris.*

A number of Tibetan pictures in the possession of the Imperial Library, and of Col. Longe, R.E., and other private owners in Calcutta were exhibited.

The following papers were read:—

1. *The Lizards of the Andamans, with the description of a new Gecko and a note on the reproduced tail in Ptychozoon homalocephalum.*—By N. ANNANDALE, B.A.

(Abstract.)

Out of the nine Geckos recorded from the Andamans, five or possibly six would seem to have been carried thither by man. The remaining

three are indigenous. One of the three is very nearly related to forms on the nearest mainland; the second has Malabar affinities; and the third Madagascan. The Andamans have three Agamids: Two are endemic; the other is a common Indian garden species, but is very local in the Andaman Islands. Of Varanidæ, the only species is Indo-Malayan. Of the Skinks the Andamans have several species. One of these occurs down the east side of the Bay of Bengal; one is confined to the Andamans and the remaining species have a distribution similar to that of the Varanus mentioned earlier.

The author describes *Gonatodes Andersonii*—a new species.

The scales of the reproduced part of the tail, dorsal and ventral surfaces, of *Ptychozoon homocephalum* are slightly smaller than those on the uninjured part, and the dorsal tubercles are absent: also the loose membrane is narrower, asymmetric and not lobed. This last point is important, as Müller had thought the lobes of specific importance.

2. *Vidyapati Thakur*.—By NAGENDRANATH GUPTA. Communicated by the President.

(Abstract.)

The paper contains facts relating to the life and work of this poet. Some four hundred new poems have been obtained in one collection, and they are pronounced genuine; altogether some six or seven hundred poems of his are known. He lived to a very great age; but the exact dates of his birth and death cannot be ascertained, though the day of the month on which he died is known. He was appointed Raj Pandit in an age of Pandits, and showed untiring activity through his life. In a village near Darbhanga is preserved a very valuable manuscript of his poems which has been examined.

3. *The Occurrence of an Aquatic Glow-worm in India*.—By N. ANNANDALE, B.A.

Until recently the Lampyridæ were regarded as purely terrestrial and aerial beetles. The great abundance of fire-flies on the banks of Oriental rivers and swamps, especially in wet weather, and the fact that most glow-worms (generally the larvae of fire-flies) seem to affect damp situations, have led me to doubt whether this is the case in a considerable number of tropical forms, regarding the life-history of which nothing is known. In 1899¹ I first observed and collected an aquatic larval glow-worm at Patalung in Lower Siam, and I was able to confirm the observation at the same place in 1902². At the beginning of November, 1904, I brought some water-weeds from a tank in the suburbs of Calcutta, and among their roots I subsequently found

¹ P.Z.S. 1900, pp. 862-865 ² Fascic. Malay. Suppl., 1902, p. xiv.

what appears to be a second Lampyrid larva. It is not so brilliantly luminous as the Siamese form, but closely resembles it. Should I be able to rear it, I hope to publish a full description in due course. So far as I am aware, these are the only cases in which aquatic Lampyrids have been found.

I may say that I am getting together material for an account of the tank fauna of Calcutta, and will be glad to receive specimens of fresh-water animals of all kinds from the neighbourhood. If possible, arrangements will be made for their identification by specialists in Europe, unless they belong to groups which are being studied by naturalists at present in India.

4. *A note on Mahamahataka Chandeswara Thakkura of Mithila.*—By THE HON. MR. JUSTICE SARODA CHARAN MITRA.

(Abstract.)

Chandeswara Thakkura is known to lawyers as a leader of the Mithila School of the Mitakshara system of Hindu law; to Sanskrit scholars as the author of the *Saptaratnakara*, of which the law exposition is but a part, and which contains the whole duty of man. Up to the present time little has been known of him, but that he was a minister of a Raja of Mithila, named Hara Singh, and was living in 1314 A.D., thereafter going on a pilgrimage to Gujrat.

It is now found out that he came of an ancient family of Mithila Brahmins originating at a village called Visai not yet identified. His grandfather, Devaditya, was prime minister to the then Raja of Mithila, —a feudatory of the Sultan of Delhi; and his father, Vireswara, was a minister and the author of a work *Chhandoga Paddhati*. His brother was a great Pandit. Mr. Colebrooke has claimed that Chandeswara rather supervised the writing than wrote the *Ratnakara*, but there is no improbability in the general belief that he wrote it.

INDEX

TO

PROCEEDINGS, ASIATIC SOCIETY OF BENGAL,

FOR 1904.

	<i>Page.</i>		<i>Page.</i>
Abdul Wali (Maulavi) ...	2	Bodding (Rev. P. O.) ...	38
Abdur Rahim (Maulavi) ...	1	Böhtlingk (Dr. Otto) ...	47, 59
Agencies ...	11	Bombay Branch of the Royal Asiatic Society, coins presented by ...	75, 80
Ahmad Hosain Khan (Maulavi) ...	69	Books, rejection of ...	60
Ahmad (Maulavi) ...	34	Bourdillon (Hon. Sir J. A.) ...	34
Alcock (Major A.) ...	29, 34, 49	Bramley (P. B.) ...	29
Algiers, Congress of Orientalists ...	43, 80	Breitkopf and Härtel, Messrs ...	64
Annandale (N.) ...	69, 76, 80, 81, 82	Burkill (I. H.) ...	29, 34, 44, 68, 77
Annual Address ...	22	Burmese pottery ...	44
Annual Meeting ...	5	Bythell (Major W. J.) ...	67
Annual Report ...	6	Caddy (Dr. A.) ...	29
Anthropological Secretary, election of ...	29	Chakravarti (Manmathanath) ...	74
Aquatic Glow-worm in India ...	82	Chakravarti (Monmohan) ...	34
Arnold (T. W.) ...	47	Chants ...	64
Ashton (R. P.) ...	1	Charles (A. P.) ...	63
Aulad Hasan (Sayid) ...	63	Chatterji (Gopal Chandra) ...	59
Bain (Lt.-Col. D. S. E.) ...	34	Chatterji (M. N.) ...	31
Banerjee (Hon. Dr. Gooroo Dass) ...	60	Chestnut, note on the ...	44
Barclay Memorial Medal ...	12	Clay seals at Basarh ...	50
Basarh, clay seals ...	50	Coin Cabinet ...	18
Basu (Nriitya Gopal) ...	64	Coins Committee, election of ...	34
Bathgate (J.) ...	34, 64	„ presentation of 2, 35, 60, 75, 80	
Bhandara, coins presented by the Dy. Commissioner of ...	80	„ report on ...	75, 80
Bhandarkar (Dr. Ramkrishna Gopal) ...	29, 30, 33	Congress of Orientalists, Algiers ...	43, 80
Bibliotheca Indica ...	19	Copper-plate grants from Rajputana and Guzarat ...	35
Bloch (T.) ...	29, 34, 47, 49, 50, 60, 80	Corresponding Member, death of ...	79

	<i>Page.</i>		<i>Page.</i>
Council Members, election of	28	Gupta (Nagendranath) ...	82
Cowell (E. B.) ...	29	Gurdon (Major P. R. T.) ...	68
Cuppige (Captain W. A.) ...	74	Guzarat, copper-plate grants	
Das (J. M.) ...	62	from ...	35
De (Brajendra Nath) ...	63	Haig (Major W.) ...	76
Death of Members	31, 34, 43, 47, 60, 69, 79	Hallward (N. L.) ...	69
De Courcy (W. B.) ...	69	Hewitt (J. F.) ...	59
De Goeje (Dr. M. J.)	29, 30, 33	Hill (E. G.) ...	79
Dhur (Asutosh) ...	64	Holland (T. H.)	28, 34, 44
Dods (W. K.)	29, 34, 74, 80	Honorary Members, election of	
Drummond (J. R.) ...	66	... 33, 63	
Dutt (Gerindra Nath) ...	3	Honorary Member, death of ...	47
Dutt (Rai Narsingh Chandra)	74	Hooper (D.)	34, 68
Earle (Hon. Mr. A.)	29, 34	Hooper (J.) ...	34
Edwards (W. N.) ...	75	Hosein Khan (Nawab M. M.) ...	1
Election of Honorary Members		Indian Museum ...	7
... 33, 63		International Catalogue of	
" of Members	1, 29, 33, 43, 47, 59, 63, 67, 69, 79	Scientific Literature ...	12
Eliot (Sir John) ...	31	Irvine (W.)	50, 67
Elliott Prize for Scientific		Jackson (V. H.) ...	1
Research ...	2, 22	James (H. R.) ...	70
Endle (Rev. S.) ...	79	Joint Philological Secretary,	
Epigraphist for Persian and		election of ...	29
Arabic Inscriptions, appoint-		Journal, Part I, report on ...	15
ment of ...	31	" " II, report on ...	17
Exchange of Publications ...	13	" " III, report on ...	17
Fanthome (J. F.) ...	51	Jvara, image of ...	66
Faunthorpe (J. C.) ...	69	Kempthorne (H. E.)	29, 34
Fermor (L. L.) ...	67	Kern (H.)	29, 33
Finance ...	7	King of Delhi, photograph of	
Finance and Visiting Com-		an old shirt belonging to ...	49
mittee, election of ...	34	King (Sir George)	38
Fossil oysters, specimens of ...	67	Knox (K. N.) ...	47
Francke (Rev. A. H.) ...	76	La Touche (T. H. D.)	29, 75
Friend-Pereira (J. E.) ...	66	Lall (Panna) ...	1
Gabriel (E. V.) ...	67	Laskar (Ganga Mohan)	3, 78
Gait (E. A.) ...	34	Lees (R. O.)	63, 67
Gamble (J. S.) ...	38	Library ...	11
Garrett (A.) ...	64	" Committee, election of	34
Ghoshia (Pratap Chandra)	34	Little (C.)	29, 32, 39, 41
Goldziher (Dr. I.)	29, 30, 33	Longe (Col. F. B.)	69
Gollan (W.) ...	44	Lyall (Sir Charles)	29, 30, 33
Grierson (Dr. G. A.)	59, 63	Macfarlane (J.) ...	28, 30,
		40, 74, 80	
		Macpherson (W. C.)	69

	Page.		Page.
Mahmud Gilani (Shams-ul-Ulama Shaikh) ...	34	Philological Committee, election of ...	34
Maldah, report on coins from	75	" Secretary, election of ...	29
Maliah (Kumar Ramessur) ...	29	Phillott (Major D. C.) ...	34
Manju Nath, image of ...	35	Pilgrim (G. E.) ...	59, 67
Mann (H. H.) ...	34	Pim (A. W.) ...	33
Marine shells, exhibition of ...	67	Pleistocene fossil bones, exhibition of ...	67
Marriott (C. R.) ...	47	Pottery, Burmese ...	44
Max Müller Memorial Fund ...	12	Prain (Lt. Col. D.) ...	28, 61, 68, 75, 76, 77
McMinn (C. W.) ...	34	Premises and Property of the Society ...	13
Members, death of ...	31,	Presentations ...	1, 29, 33, 43, 47, 59, 63, 67, 69, 79
34, 43, 47, 60, 69, 79		President, election of ...	28
" election of ...	1,	Pringle (A. T.) ...	31
29, 33, 43, 47, 59, 63, 67, 69, 79		Proceedings, report on ...	15
" list of ...	6	Publications ...	14
" of Council, election of ...	28	Rajputana, copper-plate grants from ...	35
" withdrawal of ...	31,	Ramsay (Sir William) ...	29, 30, 33
47, 60, 64, 67, 69		Rao (Suryanarain)...	74
Meteorite, specimens of ...	44	Rapson (E. J.) ...	33
Miller (J. O.) ...	43	Rejection of Library books ...	60
Mitra (Hon. Mr. Justice Saroda Charan) ...	83	Risley (H. H.) ...	22, 34
Monthly General Meetings ...	1,	Rogers (Captain L.) ...	29, 44, 64, 75
29, 33, 43, 47, 59, 63, 67, 69, 79		Ross (Dr. E. D.) ...	29, 30, 31, 34, 49, 74, 80
Muhammad Rafiq (Maulavi) ...	63	Rustomjee (H. M.) ...	60
Mukerjee (Harendra Krishna) ...	1	Samasrami (Satyavrata) ...	34
" (Panchanan) ...	34	Sanskrit manuscripts, search for ...	21
" (Dr. U. C.) ...	43	Sarman (Gulab Shankar Dev) ...	1
Mukhopadhyaya (Hon. Mr. Justice Asutosh) ...	28, 31, 34,	Sastree (Yogesa Chandra) ...	35, 66
49, 60, 74, 80		Saugor, report on coins from ...	80
Nathan (R.) ...	79	Schlagintweit (Dr. Emil) ...	79
Natural History Secretary, election of ...	29	Secretaries and Treasurer ...	13, 28
Nevill (H. R.) ...	37	Seth (M. J.) ...	34
Obituary ...	34, 47, 70	Shah Alam, Regnal years of ...	50
Papers read:— ...	2, 3, 32, 37, 38,	Shastri (Haraprasad) ...	29, 30, 34, 38
39, 41, 51, 61, 62, 66, 67, 68,		Shirt belonging to the king of Delhi, photograph of ...	49
75, 76, 77, 78, 81, 82, 83		Simpson (M. J.) ...	43
Parasins (D. B.) ...	67		
Pargiter (Hon. Mr. Justice F. E.) ...	28		
Persian and Arabic Manuscripts, proposed search for ...	12		

	<i>Page.</i>		<i>Page.</i>
Simpson (R. R.) ...	59	Tipper (G. H.) ...	59
Singh (Purnendu Narain) ...	74	Tytler (Major H. C.) ...	49
Singha (Kumar Kamlananda)	33	United Provinces of Agra and	
Sircar (Dr. Mahendralal) ..	34	Oudh Government, coins	
Snake poisons ...	44	presented by	2, 35, 60, 75, 80
Srivastavya (Shyam Sunder)	74	Vasu (Nagendra Nath) ...	34
Stapleton (H. E.)	69, 75	Venis (A.) ...	34
Stephen (Hon. Mr. Justice		Vice-Presidents, election of ...	28
H. L.) ...	59	Victoria Memorial Hall	51, 65
Stokes (Sir George) ...	29	Vidyabhushan (Satis Chandra)	34, 38
Streatfeild (O. A. C.) ...	63	Vredenburg (E.)	34, 44, 67
Stuart (L.) ...	1	Wagner (Rev. P.) ...	76
Talbot (W. S.) ...	63	Walsh (Lt.-Col. J. H. Tull)	49, 74
Tarkalankara (Chandra Kanta)	34	Wilson (Dr. C. R.)	28, 49,
Thanawala, (Framjee Jamasjee)	47		60, 61, 67, 69, 70
Thibaut (Dr. G.) ...	34	Withdrawal of Members	31,
Thornton (E.) ...	34		47, 60, 64, 67, 69
Thurston (E.) ...	34	Wood (W. H. Arden) ...	33
Tibetan pictures, exhibition of	81	Wright (H. N.) ...	34

LIST OF MEMBERS
OF THE
ASIATIC SOCIETY OF BENGAL.
ON THE 31ST DECEMBER, 1903.

LIST OF OFFICERS AND MEMBERS OF COUNCIL
OF THE ASIATIC SOCIETY OF BENGAL
FOR THE YEAR 1903.

President :

The Hon'ble Mr. C. W. Bolton, C.S.I., I.C.S., succeeded
by The Hon'ble Mr. Justice F. E. Pargiter, B.A., I.C.S.

Vice-Presidents :

H. H. Risley, Esq., B.A., C.I.E., I.C.S.
R. D. Oldham, Esq., A.R.S.M., F.G.S.

Secretary and Treasurer.

Honorary General Secretary : J. Macfarlane, Esq.
Treasurer : C. R. Wilson, Esq., M.A., D. Litt.

Additional Secretaries.

Philological Secretary : T. Bloch, Esq., Ph.D.
Natural History Secretary : E. P. Stebbing, Esq., F.E.S.
Anthropological Secretary : E. A. Gait, Esq., I.C.S.,
succeeded by Mr. E. H. Walsh, I.C.S.
Joint Philological Secretary : Mahāmāhopādhyāya Hara-
prasād Shastri, M.A.

Other Members of Council.

The Hon'ble Mr. A. Pedler, C.I.E., F.R.S.
J. Bathgate, Esq.
T. H. D. La Touche, Esq., B.A.
Kumar Ramessur Maliah.
Arnold Caddy, Esq., M.D., F.R.C.S.
E. D. Ross, Esq., Ph.D.
The Hon'ble Asutosh Mukhopadhyaya, M.A., D.L.
I. H. Burkill, Esq., M.A.
H. E. Kempthorne, Esq.
T. H. Holland, Esq., A.R.C.S., F.G.S.

LIST OF ORDINARY MEMBERS.

~~~~~

R. - Resident. N.B. - Non-Resident. A. - Absent. N.S. - Non-Subscribing.  
L.M. - Life Member. F.M. - Foreign Member.

~~~~~

N.B.—Members who have changed their residence since the list was drawn up are requested to give intimation of such a change to the Honorary General Secretary, in order that the necessary alteration may be made in the subsequent edition. Errors or omissions in the following list should also be communicated to the Honorary General Secretary.

Members who are about to leave India and do not intend to return are particularly requested to notify to the Honorary General Secretary whether it is their desire to continue Members of the Society; otherwise, in accordance with Rule 40 of the Rules, their names will be removed from the list at the expiration of three years from the time of their leaving India.

Date of Election.		
1903 Feb. 4.	R.	Abdul Alim. <i>Calcutta.</i>
1894 Sept. 27.	N.R.	Abdul Wali, Maulavie. <i>Ranchi.</i>
1895 May 1.	N.R.	Abdus Salam, Maulavie, M.A. <i>Backergunge.</i>
1903 April 1.	N.R.	Abul Aâs, Maulavi Syed, Rais and Zemindar. <i>Patna.</i>
1901 Aug. 7.	A.	Adams, Margaret. Baptist Zenana Mission. <i>Europe.</i>
1888 April 4.	R.	Ahmud, Shams-ul-ulama Maulavie, Arabic Professor, Presidency College. <i>Calcutta.</i>
1888 Feb. 1.	R.	Alcock, Major Alfred William, M.B., LL.D., C.I.E., F.R.S. <i>Calcutta.</i>
1885 Mar. 4.	L.M.	Ali Bilgrami, Sayid, B.A., A.R.S.M., F.G.S. <i>Hyderabad.</i>
1899 Jan. 4.	N.R.	Ali Hussain Khan, Nawab. <i>Bopal.</i>
1903 Oct. 28.	R.	Allan, Dr. A.S., M.B. <i>Calcutta.</i>
1900 Aug. 1.	N.R.	Allen, C. G. H., I.C.S. <i>Darjeeling.</i>
1874 June 3.	R.	Ameer Ali, The Hon'ble Mr. Justice, M.A., C.I.E., Barrister-at-Law, Judge, High Court. <i>Calcutta.</i>
1893 Aug. 31.	A.	Anderson, Major A. R. S., B.A., M.B., I.M.S. <i>Europe.</i>
1884 Sept. 3.	R.	Anderson, J. A. <i>Calcutta.</i>
1890 July 2.	N.R.	Arnold, Thomas Walker, B.A., M.R.A.S. <i>Lahore.</i>
1870 Feb. 2.	L.M.	Baden-Powell, Baden Henry, M.A., C.I.E. <i>Europe.</i>
1901 Jan. 2.	R.	Badshah, K. J., B.A., I.C.S. <i>Calcutta.</i>
1898 Nov. 2.	A.	Bailey, The Revd. Thomas Grahame, M.A., B.D. <i>Europe.</i>
1891 Mar. 4.	N.R.	Baillie, D. C., I.C.S. <i>Ghasipur.</i>
1898 Aug. 3.	N.R.	Bain, Lieut.-Col. D. S. E., I.M.S. <i>Mercara.</i>
1891 April 1.	F.M.	Baker, Edward Charles Stuart. <i>Europe.</i>
1900 Aug. 29.	R.	Baker, The Hon. Mr. E. N., C.S.I., I.C.S. <i>Calcutta.</i>

Date of Election.		
1889 May 1.	R.	Banerji, The Hon. Mr. Justice Guru Das, M.A., D.L., Judge, High Court. <i>Calcutta.</i>
1896 Mar. 4.	N.R.	Banerji, Satish Chandra, M.A. <i>Allahabad.</i>
1869 Dec. 1.	L.M.	Barker, R. A., M.D. <i>Europe.</i>
1885 Nov. 4.	R.	Barman, Damudar Das, <i>Calcutta.</i>
1877 Jan. 17.	N.R.	Barman, H. H. The Maharaja Radha Kishor Dev. <i>Tipperah.</i>
1898 Mar. 2.	N.R.	Barnes, Herbert Charles, I.C.S. <i>Shillong.</i>
1902 May 7.	R.	Bartlett, E. W. J. <i>Calcutta.</i>
1894 Sept. 27.	R.	Basu, Nagendra Natha. <i>Calcutta.</i>
1898 May 4.	R.	Bathgate, J. <i>Calcutta.</i>
1895 July 3.	L.M.	Beatson-Bell, Nicholas Dodd, B.A., I.C.S. <i>Europe.</i>
1876 Nov. 15.	F.M.	Beveridge, Henry, I.C.S. (retired). <i>Europe.</i>
1900 April 4.	N.R.	Bingley, Major A. H., I.A. <i>Simla.</i>
1898 Nov. 2.	N.R.	Black, Robert Greenhill. <i>Sylhet.</i>
1859 Aug. 3.	L.M.	Blanford, William Thomas, LL.D., A.R.S.M., F.G.S., F.E.G.S., F.Z.S., F.R.S. <i>Europe.</i>
1897 Feb. 3.	R.	Bloch, Theodor, PH.D. <i>Calcutta.</i>
1893 Feb. 1.	N.R.	Bodding, The Revd. P. O. <i>Rampore Haut.</i>
1885 Mar. 4.	A.	Bolton, The Hon. Mr. Charles Walter, C.S.I., I.C.S. <i>Europe.</i>
1895 July 3.	A.	Bonham-Carter, Norman, I.C.S. <i>Europe.</i>
1890 July 2.	A.	Bonnerjee, Womes Chunder, Barrister-at-Law, Middle Temple. <i>Europe.</i>
1897 June 2.	N.R.	Bose, Annada Prasad, M.A. <i>Jalpaiguri.</i>
1895 Mar. 6.	R.	Bose, Jagadis Chandra, M.A., D.Sc., C.I.E., Bengal Education Service. <i>Calcutta.</i>
1880 Nov. 3.	R.	Bose, Pramatha Nath, B.Sc., F.G.S. <i>Calcutta.</i>
1895 April 8.	N.R.	Bourdillon, The Hon. Sir James Austin, K.C.I.E., C.S.I., I.C.S. <i>Mysore.</i>
1860 Mar. 7.	L.M.	Brandis, Sir Dietrich, K.C.I.E., PH.D., F.L.S., F.B.S. <i>Europe.</i>
1900 Aug. 1.	A.	Brown, Major E. Harold, M.D., I.M.S. <i>Europe.</i>
1901 Sept. 25.	A.	Buchanan, Major W. J., I.M.S. <i>Europe.</i>
1887 May 4.	R.	Bural, Nobin Chand, Solicitor. <i>Calcutta.</i>
1901 June 5.	R.	Burkill, I. H., M.A. <i>Calcutta.</i>
1896 Jan. 8.	N.R.	Burn, Richard, I.C.S. <i>Allahabad.</i>
1900 May 2.	N.R.	Butcher, Flora, M.D. <i>Palwal.</i>
1898 Sept. 30.	R.	Cable, Ernest. <i>Calcutta.</i>
1896 Jan. 8.	R.	Caddy, Dr. Arnold. <i>Calcutta.</i>
1901 Jan. 2.	A.	Campbell, Duncan. <i>Europe.</i>
1901 Mar. 6.	N.R.	Campbell, W. E. M., I.C.S. <i>Mirzapur.</i>
1895 July 3.	R.	Carlyle, Robert Warrand, C.I.E., I.C.S. <i>Calcutta.</i>
1890 June 4.	R.	Chakravati, Man Mohan, M.A., B.L. Deputy Magistrate. <i>Ohinsurah.</i>
1901 Mar. 6.	N.R.	Chakravarti, Manmatha Nath. <i>Tamluk, Midnapur.</i>
1901 June 5.	A.	Chapman, E. P., I.C.S. <i>Europe.</i>
1902 Aug. 27.	R.	Chaudhuri, A., Barrister-at-Law. <i>Calcutta.</i>

Date of Election.			
1893 Sept. 28.	R.	Chandhuri, Banawari Lala, B.Sc., Edin.	<i>Calcutta.</i>
1902 April 2.	R.	Chunder, Raj Chunder, Attorney-at-Law.	<i>Calcutta.</i>
1899 Jan. 4.	A.	Clemow, Dr. Frank Gerard, M.D., Edin.	<i>Europe.</i>
1880 Aug. 26.	F.M.	Clerk, Major-Genl. Malcolm G.	<i>Europe.</i>
1903 Aug. 26	R.	Copleston, The Right Revd. Dr. Reginald Stephen, D.D.	<i>Lord Bishop of Calcutta.</i>
1898 June 1.	F.M.	Cordier, Dr. Palmyr.	<i>Europe.</i>
1876 Mar. 1.	F.M.	Crawfurd, James, B.A., I.C.S.	<i>Europe.</i>
1901 June 5.	R.	Crawfurd, Major D. G., I.M.S.	<i>Ohinsurah.</i>
1887 Aug. 25.	R.	Criper, William Risdon, F.C.S., F.I.C., A.R.S.M.	<i>Calcutta.</i>
1877 June 6.	A.	Croft, Sir Alfred W., M.A., K.C.I.E.	<i>Europe.</i>
1895 July 3.	N.R.	Cumming, John Ghest, I.C.S.	<i>Patna.</i>
1898 Aug. 26.	N.R.	Cuppaga, Captain W. A., I.A.	<i>Lucknow.</i>
1873 Dec. 3.	F.M.	Dames, Mansel Longworth, I.C.S.	<i>Europe.</i>
1896 Mar. 4.	R.	Das-Gupta, Jogendra Nath, B.A., Barrister-at-Law.	<i>Calcutta.</i>
1901 Aug. 28.	N.R.	Das, Govinda.	<i>Benares.</i>
1903 Feb. 4.	N.R.	Das, Rai Bahadur Bhawan, M.A.	<i>Hoshiarpur.</i>
1865 June 7.	N.R.	Das, Raja Jay Krishna, Bahadur, C.S.I.	<i>Moradabad.</i>
1879 April 7.	N.R.	Das, Ram Saran, M.A., Secy., Oudh Commercial Bank, Limited.	<i>Fyzabad, Oudh.</i>
1900 July 4.	N.R.	Das, Syam Sunder, B.A.	<i>Benares.</i>
1903 June 3	N.R.	De, Hari Nath.	<i>Dacca</i>
1895 Sept. 19.	N.R.	De, Kiran Chandra, B.A., I.C.S.	<i>Faridpur.</i>
1902 Mar. 5.	R.	Deb Raja Binoy Krishna, Bahadur.	<i>Calcutta.</i>
1895 Dec. 4.	N.R.	Delmerick, Charles Swift.	<i>Budaon.</i>
1900 May 2.	N.R.	Dev, Raja Satindra, Rai Mahesaya.	<i>Bansberia.</i>
1899 Aug. 30.	N.R.	Dev, Raj Kumar Satchidanand, Bahadur.	<i>Deogarh, Sambalpur.</i>
1901 June 5.	R.	Dey, Nundolal.	<i>Calcutta.</i>
1902 Feb. 5.	N.R.	Dixon, F. P., I.C.S.	<i>Chittagong.</i>
1898 Jan. 5.	R.	Dods, W. K.	<i>Calcutta.</i>
1902 July 2.	R.	Doxey, F.	<i>Calcutta.</i>
1886 June 2.	R.	Doyle, Patrick, C.E., F.R.A.S., F.R.S.E., F.G.S.,	<i>Calcutta.</i>
1902 Jan. 8.	N.R.	Drummond, J. R., I.C.S.	<i>Shahpur.</i>
1892 Sept. 22.	R.	Drury, Major Francis James, M.B., I.M.S.	<i>Calcutta.</i>
1889 Jan. 2.	N.B.	Dudgeon, Gerald Cecil, Holta Tea Co., Ld.	<i>Palam- pur.</i>
1879 Feb. 5.	F.M.	Duthie, J. F., B.A., F.L.S.	<i>Europe.</i>
1892 Jan. 6.	R.	Dutt, Gerindra Nath.	<i>Calcutta.</i>
1877 Aug. 30.	R.	Dutt, Kedar Nath.	<i>Calcutta.</i>
1892 Aug. 25.	R.	Dutt, Rai Narsingh Chunder, Bahadur.	<i>Howrah.</i>
1900 April 4.	A.	Dyson, Major Herbert Jekyl, F.R.C.S., I.M.S.	<i>Europe.</i>
1900 July 4.	R.	Earle, The Hon. Mr. A., I.C.S.	<i>Calcutta.</i>

Date of Election.			
1901 June 5.	N.R.	Ede, Francis Joseph, C.E., A.M.I.C.E., F.G.S.	<i>Silchar, Cachar.</i>
1903 Oct. 28	R.	Edelston, T. D.	<i>Calcutta.</i>
1903 May 6	N.R.	Edwards, Walter Noel.	<i>Sootea, Assam.</i>
1871 Dec. 2.	N.R.	Eliot, Sir John, M.A., K.C.I.E., F.R.S.	<i>Simla.</i>
1900 Mar. 7.	A.	Fanshawe, Sir Arthur Upton, C.S.I., K.C.I.E., I.C.S.	<i>Europe.</i>
1900 Aug. 29.	A.	Fanshawe, The Hon. Mr. H. C., C.S.I., I.C.S.	<i>Europe.</i>
1903 Aug. 26	N.R.	Faunthorpe, John Champion, I.C.S.	<i>Naini Tal.</i>
1901 Mar. 6	N.R.	Fergusson, J. C.	<i>Hardoi, Oudh.</i>
1899 Jan. 4.	A.	Ferrar, Lientenant, M. LL., I.A.	<i>Europe.</i>
1894 Dec. 5.	A.	Finn, Frank, B.A., F.Z.S.	<i>Europe.</i>
1898 Sept. 30.	R.	Firminger, The Revd. Walter K., M.A.	<i>Calcutta.</i>
1902 April 2.	N.R.	Fuller, The Hon'ble Mr. J. B., C.I.E., I.C.S.	<i>Shillong.</i>
1900 Dec. 5.	N.R.	Gabriel, E. V., I.C.S.	<i>Indore.</i>
1903 Mar. 4	R.	Gage, Captain Andrew Thomas, M.A., M.B., B.Sc., F.L.S., I.M.S.	<i>Sibpur.</i>
1893 Jan. 11.	A.	Gait, Edward Albert, I.C.S.	<i>Europe.</i>
1902 May 7.	N.R.	Garrett, A., I.C.S.	<i>Morufurpore.</i>
1899 Aug. 30.	R.	Garth, Dr. H. C.	<i>Calcutta.</i>
1902 June 4	N.R.	Ghaznavi, A. A.	<i>Mymensing.</i>
1889 Jan. 2.	R.	Ghose, Jogendra Chandra, M.A., B.L.	<i>Calcutta.</i>
1902 Feb. 5.	R.	Ghosh, Girish Chunder.	<i>Calcutta.</i>
1889 Mar. 6.	R.	Ghosh, Bhnpendra Sri, B.A., B.L.	<i>Calcutta.</i>
1869 Feb. 3.	N.R.	Ghosh, Pratapa Chandra, B.A.	<i>Vindiyachal.</i>
1897 Dec. 6.	A.	Godfrey, Captain Stuart, I.A.	<i>Europe.</i>
1861 Feb. 5.	N.S.	Godwin-Ansten, Lieut.-Colonel H. H., F.R.S., F.Z.S., F.R.G.S.	<i>Europe.</i>
1899 Aug. 2.	R.	Goenka, Roomall.	<i>Calcutta.</i>
1896 Nov. 4.	A.	Grant, A. J., I.C.S.	<i>Europe.</i>
1897 July. 7.	N.R.	Grant, Captain J. W., I.M.S.	<i>Muscat.</i>
1876 Nov. 15.	F.M.	Grierson, George Abraham, Ph.D., C.I.E., I.C.S.	<i>Europe.</i>
1900 Dec. 5.	L.M.	Grieve, J. W. A.	<i>Kalimpong.</i>
1901 April 3.	N.R.	Guha, Abhaya Sankara.	<i>Goalpara.</i>
1898 June 1.	N.R.	Gupta, Bepin Behari.	<i>Cuttack.</i>
1898 April 6.	N.R.	Gupta, Krishna Govinda, I.C.S., Barrister-at-Law.	<i>Cuttack.</i>
1898 Jan. 5.	N.R.	Gurdon, Major P. R. T., I.A.	<i>Gauhati.</i>
1901 Mar. 6.	N.R.	Habibur Rahman Khan, Maulavie.	<i>Bhikampur.</i>
1892 Jan. 6.	N.R.	Haig, Captain Wolseley, I.A.	<i>Berar.</i>
1899 April 5.	F.M.	Hare, Major E. C., I.M.S.	<i>Europe.</i>
1834 Mar. 5.	L.M.	Hassan Ali Qadr, Sir Syud, Nawab Bahadur, K.C.I.E.	<i>Murshedabad</i>
1897 Feb. 3.	R.	Hayden, H. H., B.A., B.E., F.G.S., Geological Survey of India.	<i>Calcutta.</i>

Date of Election.			
1892 Aug. 3.	A.	Hill, Samuel Charles, B.A., B.Sc.	<i>Europe.</i>
1872 Dec. 5.	A.	Hoernle, Augustus Frederick Rudolf, PH.D., C.I.F.	<i>Europe.</i>
1878 Mar. 6.	A.	Hoey, W., PH.D., I.C.S. (retired).	<i>Europe.</i>
1891 July 1.	R.	Holland, Thomas Henry, A.R.C.S., F.G.S. Director, Geological Survey of India.	<i>Calcutta.</i>
1898 Feb. 2.	R.	Hooper, David, F.C.S.	<i>Calcutta.</i>
1884 Mar. 5.	N.R.	Hooper, The Hon. Mr. John, B.A., I.C.S.	<i>Allahabad.</i>
1901 Dec. 4.	R.	Hossack, Dr. W. C.	<i>Calcutta.</i>
1873 Jan. 2.	L.M.	Houstoun, G. L., F.G.S.	<i>Europe.</i>
1890 Dec. 3.	N.R.	Hyde, The Revd. Henry Barry, M.A.	<i>Madras.</i>
1866 Mar. 7.	F.M.	Irvine, William, I.C.S. (retired).	<i>Europe.</i>
1903 Sept. 28.	N.R.	Ito, Professor C.	<i>Bombay.</i>
1899 April 5.	R.	Kemphorne, H. E.	<i>Calcutta.</i>
1882 Mar. 1.	N.R.	Keunedy, Pringle, M.A.	<i>Mozuffarpore.</i>
1867 Dec. 4.	A.	King, Sir George, M.B., K.C.I.E., LL.D., F.L.S., F.R.S., I.M.S. (retired).	<i>Europe.</i>
1896 Aug. 27.	A.	Konstam, Edwin Max.	<i>Europe.</i>
1896 July 1.	R.	Küchler, George William, M.A., Bengal Education Service.	<i>Calcutta.</i>
1891 Feb. 4.	N.R.	Kupper, Raja Lala Bunbehari.	<i>Burdwan.</i>
1899 Aug. 30.	N.R.	Lal, Dr. Mannu.	<i>Banda.</i>
1902 Feb. 5.	N.R.	Lal, Lala Shyam.	<i>Moradabad.</i>
1902 Jan. 8.	N.R.	Lall, Parmeshwara.	<i>Gya.</i>
1887 May 4.	L.M.	Lanman, Charles R.	<i>Europe.</i>
1889 Mar. 6.	N.R.	La Touche, Thomas Henry Digges, B.A., Geological Survey of India.	<i>Madras.</i>
1900 Sep. 19.	R.	Law, The Hon. Sir Edward F. G., K.C.M.G., C.S.I.	<i>Calcutta.</i>
1902 July 2.	N.R.	Leake, H. M.	<i>Dalsing Sarai.</i>
1889 Nov. 6.	R.	Lee, W. A., F.R.M.S.	<i>Calcutta.</i>
1903 July 1.	N.R.	Lefroy, Harold Maxwell.	<i>Surat.</i>
1900 May. 2.	A.	Leistikow, F. R.	<i>Europe.</i>
1902 Oct. 29.	R.	Lewes, A. H.	<i>Calcutta.</i>
1889 Feb. 6.	R.	Little, Charles, M.A., Bengal Education Service.	<i>Calcutta.</i>
1902 July 2.	R.	Luke, James.	<i>Calcutta.</i>
1869 July 7.	F.M.	Lyall, Sir Charles James, M.A., K.C.S.I., C.I.E., LL.D., I.C.S. (retired).	<i>Europe.</i>
1870 April 7.	L.M.	Lyman, B. Smith.	<i>Europe.</i>
1896 Mar. 4.	A.	MacBlaine, Frederick, I.C.S.	<i>Europe.</i>
1902 July 2.	B.	Macdonald, Dr. William Roy.	<i>Calcutta.</i>
1901 Aug. 7.	R.	Macfarlane, John, Librarian, Imperial Library.	<i>Calcutta.</i>
1893 Jan. 11.	L.M.	Maclagan, E. D., M.A., I.C.S.	<i>Multan.</i>

Date of Election.		
1891 Feb. 4.	R.	Maopherson, Duncan James, M.A., C.I.E., I.C.S. <i>Calcutta.</i>
1896 Feb. 5	R.	Maopherson, The Hon'ble Mr. William Charles, C.S.I., I.C.S. <i>Calcutta.</i>
1902 April 2.	N.R.	Maddox, Captain R. H., I.M.S. <i>Ranchi.</i>
1893 Aug. 31.	N.R.	Mahatha, Purmeshwar Narain. <i>Mozuffarpore.</i>
1895 Aug. 29.	R.	Mahomed Gilani, Shamas-ul-Ulama Shaikh. <i>Calcutta.</i>
1898 Nov. 2.	N.R.	Maitra, Akshaya Kumar, B.A., B.L. <i>Rajshahi.</i>
1889 Jan. 2.	R.	Maliah, Kumar Ramessur. <i>Howrah.</i>
1893 July 5.	A.	Mangos, C. D. <i>Europe.</i>
1901 June 5.	A.	Mann, H. H., B.Sc. <i>Europe.</i>
1889 Mar. 6.	A.	Mann, John, M.A. <i>Europe.</i>
1893 Mar. 1.	N.R.	Marriott, Charles Richardson, I.C.S. <i>Bhagulpur.</i>
1902 May 7.	N.R.	Marshall, J. H. <i>Simla.</i>
1903 Aug. 5.	R.	Masoom, Dr. Mirza Muhammad. <i>Calcutta.</i>
1892 April 6.	N.R.	Maynard, Major F. P., I.M.S., <i>Darjeeling.</i>
1901 Aug. 28.	R.	McLeod, Norman. <i>Calcutta.</i>
1899 Feb. 1.	N.R.	McMahon, Captain A. H., C.S.I., C.I.E., I.A. <i>Quetta.</i>
1899 Mar. 1.	N.R.	McMinn, C. W., B.A., I.C.S. (retired). <i>Comilla.</i>
1895 July 3.	F.M.	Melitus, Paul Gregory, C.I.E., I.C.S. <i>Europe.</i>
1886 Mar. 3.	L.M.	Metha, Rustomjee Dhunjeebhoy, C.I.E. <i>Calcutta.</i>
1900 Mar. 7.	N.R.	Meyer, William Stevenson, I.C.S. <i>Simla.</i>
1900 Jan. 19.	R.	Michie, Charles. <i>Calcutta.</i>
1884 Nov. 5.	R.	Middlemiss, C. S., B.A., Geological Survey of India. <i>Calcutta.</i>
1884 Sep. 3.	R.	Miles, William Harry. <i>Calcutta.</i>
1898 April 6.	N.R.	Milne, Captain C. J., I.M.S. <i>Kasauli.</i>
1874 May 6.	F.M.	Minchin, F. J. V. <i>Europe.</i>
1896 July 1.	N.R.	Misra, Rai Lakshmi Sanker, Bahadur. <i>Benares.</i>
1897 Jan. 6.	N.R.	Misra, Tulsi Ram. <i>Bareilly.</i>
1901 Aug. 28.	R.	Mitra, Kumar Narendra Nath. <i>Calcutta.</i>
1897 Nov. 3.	R.	Mitra, The Hon'ble Mr. Justice Saroda Churan, M.A., B.L. <i>Calcutta.</i>
1901 Aug. 7.	N.R.	Molony, E., I.C.S. <i>Ghasipur.</i>
1895 July 3.	N.R.	Monohan, Francis John, I.C.S. <i>Shillong.</i>
1898 May 4.	R.	Mookerjee, R. N. <i>Calcutta.</i>
1902 July 2.	R.	Morshead, L. F., I.C.S. <i>Calcutta.</i>
1894 June 6.	N.R.	Muhammad Shibli Nomani, Shams-ul-Ulama Maulavie, Professor of Arabic in the Muhammadan Oriental College. <i>Aligarh.</i>
1902 April 2.	R.	Mukerjee, Jaladhi Chunder. <i>Calcutta.</i>
1901 Jan. 2.	N.R.	Mukerjee, Dr. U. C. <i>Birbhoom.</i>
1894 Aug. 30.	R.	Mukerjee, Sib Narayan. <i>Uttarpara.</i>
1900 May 2.	R.	Mukerji, P. B., B.Sc. <i>Calcutta.</i>
1899 Sept. 29.	R.	Mukharji, Jotindra Nath, B.A. <i>Calcutta.</i>
1886 May 5.	R.	Mukhopadhyaya, The Hon'ble Dr. Asutosh, M.A. D.L., F.R.A.S., F.R.S.E. <i>Calcutta.</i>
1892 Dec. 7.	R.	Mukhopadhyaya, Panchanana. <i>Calcutta.</i>

Date of Election.		
1901 April 3.	R.	Mullick, Pramatha Nath. <i>Calcutta.</i>
1901 June 5.	N.R.	Mullick, Ramani Mohan. <i>Meherpur.</i>
1885 June 3.	N.R.	Naemwoollah, Maulavie, Deputy Magistrate. <i>Btawah.</i>
1901 Mar. 6.	N.R.	Nevill, H. R., I.C.S. <i>Naini Tal.</i>
1900 Dec. 5.	R.	Nicoll, John. <i>Calcutta.</i>
1889 Aug. 29.	L.M.	Nimmo, John Duncan. <i>Europe.</i>
1892 Oct. 27.	F.M.	Norvill, Dr. Frederic H. <i>Europe.</i>
1885 Feb. 4.	N.R.	Nyayaratna, Mahāmāhopādhyāya Mahesa Chandra, C.I.E. <i>Benares.</i>
1899 Jan. 7.	A.	O'Brien, P. H., I.C.S. <i>Europe.</i>
1900 Dec. 5.	N.R.	O'Connor, Captain, W. F., B.A. <i>Darjeeling.</i>
1900 Aug. 29.	A.	O'Dwyer, Michael Francis, B.A., I.C.S. <i>Europe.</i>
1880 Dec. 1.	A.	Oldham, R. D., A.R.S.M., F.G.S., Geological Survey of India. <i>Europe.</i>
1887 July 6.	R.	Oung, Moung Hla. <i>Calcutta.</i>
1901 Jan. 2.	N.R.	Pande, Pandit Ramavatar, B.A., I.C.S. <i>Jhansi.</i>
1880 Aug. 4.	L.M.	Pandia, Pandit Mohanlall Vishnulall, F.T.S., <i>Muttra.</i>
1901 Aug. 28.	A.	Panton, E. B. H., I.C.S. <i>Europe.</i>
1880 Jan. 7.	A.	Pargiter, The Hon'ble Mr. Justice Frederick Eden, B.A., I.C.S. <i>Europe.</i>
1901 June 5.	R.	Parsons, W. <i>Calcutta.</i>
1899 Aug. 2.	R.	Peake, C. W., M.A., Bengal Education Service. <i>Calcutta.</i>
1902 Aug. 6.	R.	Peal, H. W., F.E.S. <i>Calcutta.</i>
1873 Aug. 6.	R.	Pedler, The Hon. Mr. Alexander, C.I.E., F.R.S., Director of Public Instruction, Bengal. <i>Calcutta.</i>
1888 June 6.	L.M.	Pennell, Anbray Percival, B.A., Bar-at-Law. <i>Rangoon.</i>
1881 Aug. 25.	R.	Percival, Hugh Melville, M.A., Bengal Education Service. <i>Calcutta.</i>
1877 Aug. 1.	N.R.	Peters, Lieut.-Colonel C. T., M.B., I.M.S. <i>Bombay.</i>
1889 Nov. 6.	F.M.	Phillott, Major D. O., I.A. <i>Europe.</i>
1889 Mar. 6.	R.	Prain, Major David, M.A., M.B., LL.D., I.M.S., Superintendent, Royal Botanic Garden. <i>Sibpur.</i>
1889 Mar. 6.	N.R.	Prasad, Hanuman, Raes and Zemindar. <i>Chunar.</i>
1896 Sept. 25.	N.R.	Pringle, A. T. <i>Madras.</i>
1880 April 7.	N.R.	Rai, Bipina Chandra, B.L. <i>Jessore.</i>
1895 Aug. 29.	R.	Rai Chaudhery, Jatindra Nath, M.A., B.L. <i>Barnagar.</i>
1901 June 5.	N.R.	Rai, Lala Lajpat. <i>Lahore.</i>
1900 April 4.	R.	Raleigh, The Hon. Mr. T. <i>Calcutta.</i>
1898 Aug. 3.	N.R.	Ram, Sita, M.A. <i>Moradabad.</i>
1890 Mar. 5.	R.	Ray, Prafulla Chandra, D.Sc., Bengal Education Service. <i>Calcutta.</i>

Date of Election.		
1887 May 4.	N.R.	Ray, Prasanna Kumar, D.Sc. (Lond. and Edin.), Bengal Education Service. <i>Dacca.</i>
1884 Mar. 5.	R.	Risley, Herbert Hope, B.A., C.I.E., I.C.S. <i>Calcutta.</i>
1903 Mar. 4.	N.R.	Rogers, Charles Gilbert, F.L.S., F.C.H., Indian Forest Department. <i>Port Blair.</i>
1900 April 4.	R.	Rogers, Captain Leonard, M.D., B.Sc., M.R.C.P., F.R.C.S., I.M.S. <i>Calcutta.</i>
1900 Aug. 29.	N.R.	Rose, H. A., I.C.S. <i>Lahore.</i>
1901 Dec. 4	R.	Ross, E. Denison, Ph.D. <i>Calcutta.</i>
1896 Dec. 2.	N.R.	Row, B. Suryanaran, B.A. <i>Bellary.</i>
1889 June 5.	N.R.	Roy, Maharaja Girjanath. <i>Dinagepur.</i>
1903 July 1.	R.	Roy, Maharaja Jagadindra Nath, Bahadur. <i>Calcutta.</i>
1885 Mar. 4.	R.	Rustomjee, Harjeebhoy Manickjee; C.I.E. <i>Calcutta.</i>
1896 Aug. 27.	N.R.	Samman, Herbert Frederick, I.C.S. <i>Jessore.</i>
1899 June 7.	N.R.	Sarkar, Chandra Kumar. <i>Kowkanik.</i>
1898 Mar. 2.	N.R.	Sarkar, Jadu Nath. <i>Bankipore.</i>
1897 Nov. 3.	R.	Saunders, C. <i>Calcutta.</i>
1902 Feb. 5.	R.	Schulten, Dr. C. <i>Calcutta.</i>
1900 Dec. 5.	N.R.	Schwaiger, Imre George. <i>Delhi.</i>
1893 Jan. 11.	L.M.	Scindia, His Highness the Maharaja. <i>Gwalior.</i>
1902 Feb. 5.	N.R.	Sen, A. C., I.C.S. <i>Bankura.</i>
1900 Dec. 5.	N.R.	Sen, Birendra Chandra, I.C.S. <i>Dinajpur.</i>
1901 Aug. 28.	R.	Sen, Upendranath. <i>Calcutta.</i>
1885 April 1.	R.	Sen, Yadu Nath. <i>Calcutta.</i>
1897 Dec. 1.	R.	Seth, Mesrovb J. <i>Calcutta.</i>
1900 Mar. 7.	R.	Shastree, Pandit Yogesha Chandra. <i>Calcutta.</i>
1885 Feb. 4.	R.	Shastri, Mahāmāhopādhyāya Haraprasād, M.A. <i>Calcutta.</i>
1902 Dec. 3.	N.R.	Shastri, Harnarain. <i>Delhi.</i>
1902 Mar. 5.	R.	Shastri, Rajendra Chandra, M.A. <i>Calcutta.</i>
1903 April 1.	R.	Shaun, Montagne Churchill. <i>Calcutta.</i>
1900 May 2.	R.	Shrager, Adolphe. <i>Calcutta.</i>
1899 May 3.	N.R.	Silberrad, Chas. A., I.C.S. <i>Banda.</i>
1903 Aug. 26.	N.R.	Simpson, J. Hope, I.C.S. <i>Naini Tal.</i>
1893 Mar. 1.	N.R.	Singh, Maharaja Kumara Sirdar Bharat, I.C.S. <i>Ghaziपुर.</i>
1902 Sep. 24.	R.	Singh, Kumar Birendra Chandra. <i>Calcutta.</i>
1895 Aug. 29	R.	Singh, Lachmi Narayan, M.A., B.L. <i>Calcutta.</i>
1892 Mar. 2.	L.M.	Singh, The Hon. Raja Ooday Pratap. <i>Binga.</i>
1889 Aug. 29.	N.R.	Singh, H. H. The Maharaja Prabhu Narain, Bahadur. <i>Benares.</i>
1892 Aug. 3.	N.R.	Singh, H. H. The Hon. Maharaja Pratap Narain. <i>Ajodhya, Oudh.</i>
1889 Nov. 6.	N.R.	Singh, H. H. The Hon. Maharaja Rameshwara, Bahadur. <i>Darbhanga.</i>
1894 Feb. 7.	N.R.	Singh, H. H. Raja Vishwa Nath, Bahadur, Chief of Chhatarpur.
1901 Aug. 7.	R.	Singha, Chandra Narayan. <i>Calcutta.</i>

Date of Election.		
1894 July 4.	N.R.	Sinha, Kunwar Kushal Pal, M.A. <i>Narki P.O., Agra District.</i>
1899 June 7.	N.R.	Sinha, Purnenda Narayan. <i>Bankipur.</i>
1867 April 3.	R.	Sircar, Dr. Mahendra Lal, M.D., C.I.E., D.L. <i>Calcutta.</i>
1897 Jan. 6.	R.	Sircar, Amrita Lal, F.C.S. <i>Calcutta.</i>
1872 Aug. 5.	N.R.	Skrefsrud, The Revd. Laurentius Olavi. <i>Rampore Haut.</i>
1901 Dec. 4.	N.R.	Spooner, D. Brainerd. <i>Benares.</i>
1899 Nov. 1.	N.R.	Srivastavva, Lala Shyam Sunder Lal. <i>Pertabgarh.</i>
1898 April 6.	N.R.	Stark, Herbert A., B.A. <i>Cuttack.</i>
1901 Mar. 6.	A.	Stebbing, E. P. <i>Europe.</i>
1891 Aug. 27.	A.	Stein, M.A., PH.D. <i>Europe.</i>
1895 July 5.	A.	Steinberg, Alfred Frederick, I.C.S. <i>Europe.</i>
1899 Aug. 30.	R.	Stephen, St. John, B.A., LL.B. Barrister-at-Law. <i>Calcutta.</i>
1900 Aug. 29.	N.R.	Stephenson, Captain John, I.M.S. <i>Gujrat.</i>
1899 Mar. 1.	R.	Tocher, A. <i>Calcutta.</i>
1868 June 3.	R.	Tagore, The Hon. Maharaja Sir Jotendra Mohun, Bahadur, K.C.S.I. <i>Calcutta.</i>
1898 April 6.	R.	Tagore, Maharaja Prodyat Coomar. <i>Calcutta.</i>
1893 Aug. 31.	N.R.	Tate, G. P. <i>Seistan.</i>
1878 June 5.	N.R.	Temple, Colonel Sir Richard Carnac, Bart., C.I.E., I.A. <i>Port Blair.</i>
1875 June 2.	N.R.	Thibaut, Dr. G., Muir Central College. <i>Allahabad.</i>
1898 Nov. 2.	R.	Thornton, Edward, A.R.I., B.A. <i>Calcutta.</i>
1847 June 2.	L.M.	Thuillier, Lieut.-Genl. Sir Henry Edward Landor, K.T., C.S.I., F.R.S., R.A. <i>Europe.</i>
1891 Aug. 27.	N.R.	Thurston, Edgar. <i>Madras.</i>
1861 June 5.	L.M.	Tremlett, James Dyer, M.A., I.C.S. (retired). <i>Europe.</i>
1893 May 3.	N.R.	Vanja, Raja Ram Chandra. <i>Mayurbhanga, District Balasore.</i>
1898 Feb. 2.	R.	Vasu, Amrita Lal. <i>Calcutta.</i>
1900 Aug. 29.	A.	Vaugham, Major J. C., I.M.S. <i>Europe.</i>
1890 Feb. 5.	N.R.	Venis, Arthur, M.A., Principal, Sanskrit College. <i>Benares.</i>
1902 May 7.	R.	Vidyabhushan, Jogendra Nath Sen. <i>Calcutta.</i>
1902 June 4.	R.	Vidyabhushan, Pandit Satis Chandra, M.A. <i>Calcutta.</i>
1901 Mar. 6.	A.	Vogel, J. Ph., PH.D. <i>Europe.</i>
1894 Sept. 27.	L.M.	Vost, Major William, I.M.S. <i>Muttra.</i>
1902 Oct. 29.	R.	Vredenburg, E. <i>Calcutta.</i>
1901 Aug. 7.	A.	Walker, Dr. T. L. <i>Europe.</i>
1900 Jan. 19.	R.	Wallace, David Robb. <i>Calcutta.</i>
1901 June 5.	N.R.	Walsh, E. H., I.C.S. <i>Darjeeling.</i>
1889 Nov. 6.	R.	Walsh, Lieut.-Col. John Henry Tull, I.M.S. <i>Odcutta.</i>
1900 April 4.	N.R.	Walton, Captain Herbert James, M.B., F.R.C.S., I.M.S. <i>Bombay.</i>

Date of Election.		
1865 May 3.	A.	Waterhouse, Major-General James. <i>Europe.</i>
1874 July 1.	A.	Watt, Sir George, Kt., C.I.E. <i>Europe.</i>
1899 Sept. 29.	A.	Welldon, The Revd. Dr. James Edward Cowell, D.D. <i>Europe.</i>
1902 April 2.	R.	Wheeler, H., I.C.S. <i>Calcutta.</i>
1896 Feb. 5.	A.	Williams, Captain Charles E., I.M.S. <i>Europe.</i>
1891 May 6.	R.	Wilson, Charles Robert, M.A., D. LITT., Bengal Education Service. <i>Calcutta.</i>
1900 Dec. 5.	R.	Woodman, H. C., I.C.S. <i>Calcutta.</i>
1894 Sept. 27.	R.	Woodroffe, John George, Barrister-at-Law. <i>Calcutta.</i>
1894 Aug. 30.	N.R.	Wright, Henry Nelson, B.A., I.C.S. <i>Allahabad.</i>
1898 July 6.	R.	Wyness, James, C.E. <i>Calcutta.</i>

SPECIAL HONORARY CENTENARY MEMBERS.

Date of Election.		
1884 Jan. 15.		Dr. Ernst Hæckel, Professor in the University of Jena.
1884 Jan. 15.		Charles Meldrum, Esq., C.M.G., M.A., LL.D., F.R.A.S., F.R.S. <i>Mauritius.</i>
1884 Jan. 15.		Professor A. H. Sayce, Professor of Comp. Philology. <i>Oxford.</i>
1884 Jan. 15.		Professor Emile Senart, Member of the Institute of France. <i>Paris.</i>

HONORARY MEMBERS.

1848 Feb. 2.		Sir Joseph Dalton Hooker, G.C.S.I., C.B., M.D., D.C.L., LL.D., F.L.S., F.G.S., F.R.G.S., F.R.S. <i>Berkshire.</i>
1875 Nov. 3.		Dr. Otto von Böhtlingk. <i>Leipzig.</i>
1879 June 4.		Dr. Albert Günther, M.A., M.D., PH.D., F.Z.S., F.R.S. <i>Surrey.</i>
1879 June 4.		Dr. Jules Janssen. <i>Paris.</i>
1879 June 4.		Professor P. Regnaud. <i>Lyons.</i>
1881 Dec. 7.		Lord Kelvin, G.C.V.O., D.C.L., LL.D., F.R.S.E., F.R.S. <i>Glasgow.</i>
1888 Feb. 7.		William Thomas Blanford, Esq., LL.D., A.E.S.M., F.G.S., F.R.G.S., F.Z.S., F.R.S. <i>London.</i>
1883 Feb. 7.		Alfred Russell Wallace, Esq., LL.D., D.C.L., F.L.S., F.Z.S., F.R.S. <i>Dorset.</i>
1894 Mar. 7.		Mahāmāhāpodhyāya Chandra Kanta Tarkalankara. <i>Calcutta.</i>
1894 Mar. 7.		Professor Theodor Noeldeke. <i>Strassburg.</i>
1895 June 5.		Lord Rayleigh, M.A., D.C.L., D.SC., LL.D., PH.D., F.R.A.S., F.R.S. <i>Witham, Essex.</i>
1895 June 5.		Lt.-Genl. Sir Richard Strachey, R.E., G.C.S.I., LL.D., F.R.G.S., F.G.S., F.L.S., F.R.S. <i>London.</i>
1895 June 5.		Charles H. Tawney, Esq., M.A., C.I.E. <i>London.</i>
1896 Feb. 5.		Lord Lister, F.R.C.S., D.C.L., M.D., LL.D., D.SC., F.R.S. <i>London.</i>

Date of Election.	
1896 Feb. 5.	Sir Michael Foster, K.C.B., M.A., M.D., D.C.L., LL.D., D.SC., F.L.S., F.C.S., F.R.S. <i>Cambridge.</i>
1896 Feb. 5.	Professor F. Kielhorn, PH.D., C.I.E. <i>Göttingen.</i>
1896 Feb. 5.	Professor Charles Rockwell Lanmann. <i>Massachusetts, U.S.A.</i>
1899 Feb. 1.	Dr. Augustus Frederick Rudolf Höernle, PH.D., C.I.E. <i>Oxford.</i>
1899 Dec. 6.	Professor Edwin Ray Lankester, M.A., LL.D., F.R.S. <i>London.</i>
1899 Dec. 6.	Sir George King, K.C.I.E., M.B., LL.D., F.L.S., F.R.S. <i>London.</i>
1899 Dec. 6.	Professor Edward Burnett Tylor, D.C.L., LL.D., F.R.S. <i>Oxford.</i>
1899 Dec. 6.	Professor Edward Suess, PH.D., For. Mem. R.S. <i>Vienna.</i>
1901 Mar. 6.	Professor J. W. Judd, C.B., LL.D., F.R.S. <i>London.</i>
1902 Nov. 5.	Monsieur R. Zeiller. <i>Paris.</i>

CORRESPONDING MEMBER.

Date of Election.	
1866 May 7.	Schlagintweit, Dr. Emil. <i>Zweibrücken.</i>

ASSOCIATE MEMBERS.

Date of Election.	
1874 April 1.	Lafont, The Revd. E., C.I.E., S.J. <i>Calcutta.</i>
1875 Dec. 1.	Bate, The Revd. J. D., M.R.A.S. <i>Kent.</i>
1875 Dec. 1.	Abdul Hai, Maulavie. <i>Calcutta.</i>
1882 June 7.	Giles, Herbert. <i>Europe.</i>
1884 Aug. 6.	Moore, F., F.L.S. <i>Surrey.</i>
1885 Dec. 2.	Führer, Dr. A. <i>Europe.</i>
1886 Dec. 1.	Das, Rai Bahadur Sarat Chandra, C.I.E. <i>Calcutta.</i>
1892 April 6.	Samasrami, Satya Vrata. <i>Calcutta.</i>
1892 Dec. 7.	Brühl, P. J. <i>Sibpur.</i>
1899 April 5.	Sanyal, Rai Bahadur Ram Brahma. <i>Calcutta.</i>
1899 April 5.	Bhandari, Visnu Prasad Raj. <i>Nepal.</i>
1899 Nov. 1.	Francotte, The Revd. E., S.J. <i>Calcutta.</i>
1902 June 4.	Francke, The Revd. A. H. <i>Leh.</i>

**LIST OF MEMBERS WHO HAVE BEEN ABSENT FROM
INDIA THREE YEARS AND UPWARDS.***

* *Rule 40.*—After the lapse of three years from the date of a member leaving India, if no intimation of his wishes shall in the interval have been received by the Society, his name shall be removed from the List of Members.

The following members will be removed from the next Member List of the Society under the operation of the above Rule:—

Dr. Frank Gerard Clemow, M.D. (Edin).
 Sir Alfred W. Croft, M.A., K.C.I.E.
 Lieut. M. Ll. Ferrar, I.A.
 A. J. Grant, Esq., I.C.S.
 W. Hoey, Esq., PH.D., I.C.S. (retired).
 C. D. Mangos, Esq.
 John Mann, Esq., M.A.
 The Revd. Dr. James Edward Cowell Welldon, D.D.
 Captain Charles E. Williams, I.M.S.

LOSS OF MEMBERS DURING 1903.

BY RETIREMENT.

A. F. M. Abdur Rahman, Esq.
 Lieut.-Col. Charles Henry Ellison Adamson, I.A.
 Lieut.-Col. G. F. A. Harris, I.M.S.
 Col. Thomas Holbein, Hendley, C.I.E., I.M.S.
 Lucas White King, Esq., B.A., LL.B., C.S.I., I.C.S.
 Albert Bermingham Miller, Esq., B.A.
 J. C. Mitra, Esq., M.A., B.L.
 The Revd. Herbert Octavius Moore, M.A.
 Dr. F. Noetling.
 E. Seymour Wood, Esq.

BY DEATH.

Ordinary Members.

M. N. Chatterjee, Esq.
 William Brown Colville, Esq.
 William Common, Esq., C.E.
 Babu Ram Din Singh.

Honorary Member.

Professor Edward Bayles Cowell, D.C.L.
 Sir George Gabriel Stokes, Bart, M.A., D.C.L., F.R.S.

BY REMOVAL.

Under Rule 9.

Abdur Rahim, Esq.
 Nawab M. M. Hosein Khan.

Under Rule 40.

Dr. Paul Deussen.
 G. W. Forrest, Esq., B.A.
 Oscar Trefftz, Esq.

[APPENDIX.]

ABSTRACT STATEMENTS
OF
RECEIPTS AND DISBURSEMENTS
OF THE
ASIATIC SOCIETY OF BENGAL
FOR
THE YEAR 1908.

1903.

STATEMENT

Asiatic Society

Dr.

TO ESTABLISHMENT.

	Rs.	As.	P.		Rs.	As.	P.
Salaries	3,577	7	4				
Commission	408	15	0				
					3,984	6	4

TO CONTINGENCIES.

Stationery	98	8	0				
Taxes	884	4	0				
Postage	420	2	0				
Freight	65	10	9				
Meeting	134	3	0				
Auditor's fee	100	0	0				
Registration fee	5	0	0				
Insurance fee	625	0	0				
Electric Punkhas and Lights	142	4	0				
Gas Lighting	119	0	0				
Miscellaneous	640	0	4				
					3,234	0	1

TO LIBRARY AND COLLECTIONS.

Books	1,813	13	7				
Binding	390	0	0				
Catalogue	358	7	0				
Electric fittings	2,414	0	0				
Typewriter and Duplicator	532	8	0				
					5,508	12	7

TO PUBLICATIONS.

Journal, Part I	686	4	6					
Journal, Part II	878	8	3					
Journal, Part III	228	5	6					
Proceedings	647	9	0					
					2,390	11	3	
To Printing charges of Circulars, Receipt-forms, &c.						153	11	0
„ Personal Account (Writes-off and Miscellaneous)						177	9	6

TO EXTRAORDINARY EXPENDITURE.

Royal Society's Scientific Catalogue	618	14	6				
Max Müller Memorial Fund	669	10	0				
					1,288	8	6
Balance					161,826	9	6
Total Rs.					198,564	4	9

No 1.
of Bengal.

1903.

		Cr.			
				Rs. As. P.	Rs. As. P.
By Balance from last Report	175,588	11 3
BY CASH RECEIPTS.					
Publications sold for cash	259	0 0
Interest on Investments	6,541	8 0
Rent of Rooms on the Society's ground floor	1,375	0 0
Allowance from Government of Bengal for the Publication of Anthropological and Cognate subjects	2,000	0 0
Ditto from Government of Assam	1,000	0 0
Miscellaneous	179	8 6
				11,354	11 6
BY EXTRAORDINARY RECEIPTS.					
Subscriptions to Royal Society's Scientific Catalogue	1,047	11 0
BY PERSONAL ACCOUNT.					
Admission fees	544	0 0
Subscriptions	8,299	0 0
Sales on credit	1,033	4 0
Miscellaneous	146	15 0
				10,023	3 0
Total Rs.				198,561	4 9

C. R. WILSON,
Honorary Secretary and Treasurer,
Asiatic Society of Bengal.

Examined and found correct.
MEUGENS, KING & SIMSON,
Auditors.

STATEMENT

1903. Oriental Publication Fund in Account

Dr.

TO CASH EXPENDITURE.				Rs.	As.	P.	Rs.	As.	P.
Copying	...	...	...	219	0	0			
Printing charges	...	...	...	4,416	10	0			
Editing charges	...	...	...	4,748	8	0			
Salaries	...	...	...	1,531	10	8			
Freight	...	...	...	68	9	0			
Stationery	...	...	...	38	7	0			
Postage	...	...	...	456	9	3			
Commission on collection	...	...	...	31	10	7			
Contingencies	...	...	...	40	5	9			
							11,551	6	3
To Personal Account (Writes-off and Miscellaneous)	...	...	...				7	3	8
Balance	...	...	...				11,241	3	8
Total Rs.							22,799	13	7

STATEMENT

Sanskrit Manuscript Fund in Account

Dr.

TO CASH EXPENDITURE.				Rs.	As.	P.	Rs.	As.	P.
Salaries	...	...	...	2,358	2	0			
Travelling charges	...	...	...	888	13	6			
Postage	...	...	...	0	9	6			
Copying	...	...	...	22	1	0			
Purchase of manuscripts	...	...	...	1,868	15	0			
Contingencies	...	...	...	268	6	0			
							5,346	15	0
Balance	...	...	...				6,387	14	8
Total Rs.							11,734	13	8

No. 2.

with the Asiatic Society of Bengal. 1903.

		Cr.			
		Rs.	As. P.	Rs.	As. P.
By Balance from last Report	...	...		11,585	15 7
BY CASH RECEIPTS.					
Government allowance	...	9,000	0 0		
Publications sold for cash	...	428	1 0		
Advances recovered	...	82	6 9		
		9,510		7	9
BY PERSONAL ACCOUNT.					
Sales on credit	...	...	...	1,758	6 8
		Total Rs.		22,799	18 7

C. R. WILSON,
Honorary Secretary and Treasurer,
Asiatic Society of Bengal.

Examined and found correct.
 MEUGENS, KING & SIMSON,
Auditors.

No. 3.

with the Asiatic Society of Bengal.

		Cr.			
		Rs.	As. P.	Rs.	As. P.
By Balance from last Report	...	...		8,518	18 8
BY CASH RECEIPTS.					
Government allowance	...	3,200	0 0		
Publications sold for cash	...	15	0 0		
		3,215		0	0
BY PERSONAL ACCOUNT.					
Sales on credit	...	...	...	6	0 0
		Total Rs.		11,784	18 8

C. R. WILSON,
Honorary Secretary and Treasurer,
Asiatic Society of Bengal.

Examined and found correct.
 MEUGENS, KING & SIMSON,
Auditors.

1903.

STATEMENT

Personal

Dr.

			Rs.	As.	P.	Rs.	As.	P.
To Balance from last Report	...	...	...			3,512	14	1
To CASH EXPENDITURE.								
Advances for purchase of Sanskrit Manuscripts, &c.	...	...	...			4,018	0	6
To Asiatic Society	...	...	10,023	3	0			
„ Oriental Publication Fund	...	...	1,753	6	3			
„ Sanskrit Manuscript Fund	...	...	6	0	0			
						11,782	9	3

Total Rs. ... 19,318 7 10

STATEMENT

Invest

Dr.

			Value.			Cost.		
			Rs.	As.	P.	Rs.	As.	P.
To Balance from last Report	...	...	188,800	0	0	188,104	2	7
Total Rs.	...	...				

FUNDS.*	PERMANENT.						TEMPORARY.						TOTAL COST.		
	Value.			Cost.			Value.			Cost.					
	Rs.	As.	P.	Rs.	As.	P.	Rs.	As.	P.	Rs.	As.	P.	Rs.	As.	P.
Asiatic Society ...	147,500	0	0	147,043	6	8	39,400	0	0	39,721	5	11	186,764	12	7
Trust Fund ...	1,400	0	0	1,339	6	0	...	...	...	...	...	...	1,339	6	0
	148,900	0	0	148,382	12	8	39,400	0	0	39,721	5	11	188,104	2	7

No. 4.

Account.

1903.

Cr.

By Cash Receipts	...	...	...	Rs. As. P.	Rs. As. P.
„ Asiatic Society	..	...	...	177 9 6	11,834 5 6
„ Oriental Publication Fund	...	...	...	7 3 8	
					<u>184 13 2</u>

By Balance.	Due to the Society.			Due by the Society.		
	Rs.	As.	P.	Rs.	As.	P.
Members ...	4,484	3	2	115	5	0
Subscribers ...	36	1	0	6	8	0
Employés ...	30	0	0	350	0	0
Baptist Mission Press ...	3,246	2	0	0	0	0
Mr. A. E. Caddy for cleaning pictures ..	500	0	0	0	0	0
Miscellaneous...	14	8	0	144	12	0
	<u>8,410</u>	<u>14</u>	<u>2</u>	<u>616</u>	<u>9</u>	<u>0</u>

... 7,794 5 2
 Total Rs. ... 19,318 7 10

C. R. WILSON,
 Honorary Secretary and Treasurer,
 Asiatic Society of Bengal.

Examined and found correct.
 MEUGENS, KING & SIMSON,
 Auditors.

No. 5.

ment.

Cr.

By Balance *	...	...	...	Value.	Cost.
				Rs. As. P.	Rs. As. P.
				188,300 0 0	188,104 2 7
				<u>188,300 0 0</u>	<u>188,104 2 7</u>
				Total Rs. ...	

C. R. WILSON,
 Honorary Secretary and Treasurer,
 Asiatic Society of Bengal.

Examined and found correct.
 MEUGENS, KING & SIMSON,
 Auditors.

1903.

STATEMENT
Trust

Dr.		Rs. As. P.
To Balance ...	...	1,434 11 10
Total Rs.		<u>1,434 11 10</u>

STATEMENT
Cash

Dr.		Rs. As. P.	Rs. As. P.
To Balance from last Report ...	...	...	5,357 8 8
RECEIPTS.			
To Asiatic Society ...	...	13,002 6 6	
„ Oriental Publication Fund ...	...	9,510 7 9	
„ Sanskrit Manuscript Fund ...	...	3,215 0 0	
„ Personal Account ...	...	11,834 5 6	
„ Trust Fund ...	...	49 0 0	
		<u> </u>	87,111 8 9
Total Rs.		...	<u>42,468 7 5</u>

STATEMENT
Balance

Dr.		Rs. As. P.	Rs. As. P.
To Cash ...	...	4,991 15 11	
„ Investments ...	...	188,104 2 7	
„ Personal Account ...	...	7,794 5 2	
		<u> </u>	200,890 7 8
Total Rs.		...	<u>200,890 7 8</u>

No. 6.

Fund.

1903.

Cr.

				Rs.	As.	P.
By Balance from last Report	...	...	...	1,385	11	10
„ Interest on Investment	...	...	...	49	0	0
Total Rs.				1,434	11	10

C. R. WILSON,
Honorary Secretary and Treasurer,
Asiatic Society of Bengal.

Examined and found correct.
MEUGENS, KING & SIMSON,
Auditors.

No. 7.

Account.

Cr.

EXPENDITURE.

			Rs.	As.	P.	Rs.	As.	P.
By Asiatic Society	...	...	16,560	1	9			
„ Oriental Publication Fund	...	...	11,551	6	8			
„ Sanskrit Manuscript Fund	...	...	5,346	15	0			
„ Personal Account	...	...	4,018	0	6			
Balance	...	...				37,476	7	6
Total Rs.						4,991	15	11
Total Rs.						42,468	7	5

C. R. WILSON,
Honorary Secretary and Treasurer,
Asiatic Society of Bengal.

Examined and found correct.
MEUGENS, KING & SIMSON,
Auditors.

No. 8.

Sheet.

Cr.

			Rs.	As.	P.	Rs.	As.	P.
By Asiatic Society	...	...	181,826	9	6			
„ Oriental Publication Fund	...	...	11,241	3	8			
„ Sanskrit Manuscript Fund	...	...	6,887	14	8			
Trust Fund	...	...	1,484	11	10			
Total Rs.						200,890	7	8
Total Rs.						200,890	7	8

C. R. WILSON,
Honorary Secretary and Treasurer,
Asiatic Society of Bengal.

Examined and found correct.
MEUGENS, KING & SIMSON,
Auditors.

LIBRARY.

THE following books have been added to the Library from September to December, 1903.

Abdur Rahman, *Amir of Afghanistan*. The life of Abdur Rahman, Amir of Afghanistan . . . Edited by Mir Munshi Sultan Mahomed Khan . . . With portrait, maps, and illustrations. 2 vols. *London*, 1900. 8°

Açvaghosha. Açvaghosha's discourse on the Awakening of Faith in the Mahâyâna . . . Translated . . . from the Chinese version by Teitaro Suzuki. *Chicago*, 1900. 8°

Agnivesa. [Caraka Samhita. Corrected . . . by Pandit Jivananda Vidyasagara.] *Calcutta*, 1896. 8°

Presd. by Dr. A. F. R. Hoernle.

Alcock (Surgeon-Major A.) A Naturalist in Indian Seas: or, Four years with the Royal Indian Marine Survey Ship "Investigator." [With plates.] *London*, 1902. 8°

Alexander (Neil) Gita and Gospel. *Calcutta*, 1903. 8°

Presd. by the Author.

ARCHÆOLOGICAL SURVEY, PUNJAB CIRCLE. Annual Progress Report. [Lahore, 1903.] fol.

In progress.

Presd. by the Government of the Punjab.

ARCHÆOLOGY [Burma.] Report on Archæological Work in Burma Rangoon. 1903. fol.

In progress.

Presd. by the Government of Burma.

Aston (W. G.) A History of Japanese Literature. *London*, 1899. 8°

One of the "Short Histories of the Literatures of the World," edited by E. Gosse.

- Avebury, Lord** [John Lubbock.] *The Origin of Civilisation and the Primitive Condition of Man. Mental and Social condition of Savages . . . Sixth edition, with . . . additions. [With illustrations.] London, 1902. 8°*
- . *Pre-historic Times as illustrated by ancient remains and the manners and customs of modern savages . . . Sixth edition, revised. London, 1900. 8°*
- Baillie (Alexander F.)** *Oriental Club and Hanover Square . . . With . . . portraits and other illustrations. London, 1901. 4°*
- Bartlett (John)** *Familiar Quotations: being an attempt to trace to their source, passages, phrases in common use. Author's edition. London, [1900?] 8°*
- Bent (Theodore) and (Mrs. Theodore)** *Southern Arabia . . . With . . . maps and illustrations. London, 1900. 8°*
- Biddulph (Col. J.)** *Stringer Lawrence, the father of the Indian Army. London, 1901. 8°*
- Boulger (Demetrius C.)** *India in the Nineteenth Century. [With plates.] London, 1901. 8°*
- THE BRAHMA-MIMAMSA**, with Srikantha-Sivacharya's commentary.
 Edited by L. Srinivasacharya. *Mysore, 1903. 8°*
Bibliotheca Sanskrita, No. 30.
Presd. by the Government Oriental Library, Mysore.
- Brewer (Rev. E. Cobhan)** *The Readers' Handbook of famous names in fiction, allusions, references, proverbs, plots, stories, and poems . . . A new edition, revised. London, 1902. 8°*
- BRITISH EMPIRE SERIES.** Vol. I. *India, Ceylon, Straits Settlements, British Borneo, Hongkong.* Vol. V. *General.* 2 vols. *London, 1899, 1902. 8°*
- Brown (W. B.)** *A Guide to the principal places of interest in Orissa. Cuttack, 1900. 8°*
- Bryan (Michael)** *Dictionary of Painters and Engravers, biographical and critical . . . New edition . . . enlarged, edited by R. E. Graves and Sir W. Armstrong. 2 vols. London, 1902. 8°*

Budge (E. A. Wallis) A History of Egypt from the end of the Neolithic Period to the death of Cleopatra VII., B.C. 30. Illustrated. 8 vols. *London, 1902.* 8°

Part of the "Books on Egypt and Chaldæa" series.

Bury (J. B.) A History of Greece to the death of Alexander the Great . . . With maps, etc. 2 vols. *London, 1902.* 8°

THE CAMBRIDGE NATURAL HISTORY. Edited by S. F. Harmer . . . and A. E. Shipley. *London, 1901, etc.* 8°

In progress.

Campbell (J. G. D.) Siam in the twentieth century: being the experience and impressions of a British official. *London, 1902.* 8°

Cave (Henry W.) Golden Tips. A description of Ceylon and its great Tea Industry . . . Illustrated, etc. *London, 1900.* 8°

—————. The Ruined Cities of Ceylon . . . Illustrated . . .

A new edition. *London, 1900.* 8°

Celli (Angelo) Malaria according to the new researches . . . Translated from the second Italian edition by J. J. Eyre . . . With an introduction by Dr. P. Manson . . . With maps and illustrations. New edition. *London, 1901.* 8°

Chamberlain (B. H.) and Mason (W. B.) A hand-book for Travellers in Japan, including the whole Empire from Yezo to Formosa . . . With . . . maps . . . and . . . illustrations. Sixth edition, revised. *London, 1901.* 8°

"One of Murray's Hand-books."

Church (Percy W.) Chinese Turkestan with caravan and rifle. [With illustrations.] *London, 1901.* 8°

Cockerell (T. D. A.) Directions for collecting and preserving scale insects—Coccidæ. *Washington, 1897.* 8°

From the Bulletin of the United States National Museum.

Coville (Frederick V.) Directions for collecting specimens and information illustrating the aboriginal uses of plants. *Washington, 1895.* 8°

From the Bulletin of the United States National Museum.

Presd. by the Smithsonian Institution.

- Cunningham (Alfred)** *The French in Tonkin and South China.*
[With illustrations.] *Hongkong*, [1902.] 12°
- Dallana Mishra.** *Nibandhasangraha.* A commentary on the *Sushruta-sanhita* ... Edited ... by Pandit Jivananda Vidyasagara. Third edition. *Calcutta*, 1891. 8°
Presd. by Dr. A. R. F. Hoernle.
- Deasy (Capt. H. H. P.)** *In Tibet and Chinese Turkestan: being the record of the three years' exploration ... With ... maps and illustrations.* *London*, 1901, 8°
- De Rosthorn (A.)** *On the Tea Cultivation in Western Ssuch'uan and the Tea Trade with Tibet viâ Tachienlu ... With ... map.* *London*, 1895. 8°
- Dharmapâla (H.)** *History of the Maha-Bodhi Temple at Budh Gaya ... With an appendix by Sir E. Arnold.* *Calcutta*, 1900. 4°
- DICTIONNAIRE Thibétain-latin-français, par les Missionaires Catholiques du Thibet. [Edited by—Desgodins.] *Hongkong*, 1899. 4°
- Digby (William)** 'Prosperous' British India. A revelation from official records. [With illustrations.] *London*, 1901. 8°
- Donaldson (Florence)** *Lepcha Land, or six weeks in the Sikhim Himalayas ... With a map ... and ... illustrations, etc.* *London*, 1900. 8°
- Duthie (J. F.)** *Flora of the Upper Gangetic Plain and of the adjacent Siwalik and Sub-Himalayan Tracts.* *Calcutta*, 1903. 8°
In progress.
Presd. by the Government of Bengal.
- EDUCATION [*Madras*]. Report submitted by the Director of Public Instruction [*Madras*] regarding the supply of Periodicals to certain officers and institutions. [*Madras*, 1903.] fol.
Presd. by the Government of Madras.
- Frazer (J. G.)** *The Golden Bough.* A study in Magic and Religion ... Second edition, revised and enlarged. 3 vols. *London*, 1900. 8°
- Godley (J. C.)** *A Record of the Aitchison College at Lahore, 1887-1901.* With a list of former and present students, showing their parentage. *Lahore*, 1901. 4°

Gokale (G. K.) Treatment of Indians by the Boers, and the treatment of the low castes in India by their own countrymen. A speech, etc. *Madras*, 1903. 8°

Presd. by the Christian Literature Society of India, Madras.

Gopal Panikkar (T. K.) Malabar and its Folk . . . With an introduction by the Rev. F. W. Kellett. *Madras*, 1900. 8°

Gray (Louis H.) Indo-Iranian Phonology, with special reference to the middle and new Indo-Iranian Languages. *New York*, 1902. 8°

Columbia University Indo-Iranian series," col. 2.

Grierson (G. A.) A Bibliography of Western Hindi, including Hindostani. *Bombay*, 1903. 4°

Reprinted from the Indian Antiquary.

———. The Early Publications of the Serampore Missionaries. A contribution to Indian bibliography. *Bombay*, 1903. 4°

Reprinted from the Indian Antiquary.

———. Tulasi Dāsa, poet and religious reformer. [*London*, 1903.] 8°

From the Journal of the Royal Asiatic Society.

Presd. by the Author.

Haeckel (Ernst) Anthropogenie oder Entwicklungsgeschichte des Menschen. Keimes und Stammes-geschichte. 2 vols. *Leipzig*, 1903. 8°

Presd. by the Author,

Hahn (Rev. Ferd.) Kurukh (Orāṣ)—English Dictionary. *Calcutta*. 1903. 8°

In progress.

Presd. by the Government of Bengal.

Hardiman (J. P.) Silk in Burma. [With plates.] *Rangoon*, 1901. 8°

Hendley (Surg.-Col. Thomas Holbein) Damascening on steel or iron, as practised in India . . . With . . . illustrations . . . photo-chromolithographed by W. Griggs, etc. *London*, 1892. fol.

HINDI MANUSCRIPTS. Annual Report on the Search for Hindi Manuscripts . . . By Syamsundar Das. *Allahabad*, 1903. fol.

In progress.

Presd. by Nagari-Pracharini Sabha, Benares.

Holdich (Col. Sir T. H.) The Indian Borderland, 1880-1900 . . .
With . . . illustrations and a map. *London*, 1901. 8°

Hosie (Alexander) Manchuria; its people, resources and recent
history . . . With map . . . and illustrations. *London*, 1901. 8°

India Office. Catalogue of Persian Manuscripts in the Library of the
India Office by Hermann Ethé. *Oxford*, 1903. 4°
In progress.

Presd. by the Government of Bengal.

Jackson (John) In Leper-land: being a record of my tour of 7,000
miles among Indian lepers, . . . Illustrations, etc. *London*, [1902.]
8°

Jastrow (Morris) The Study of Religion. *London*, 1901. 8°
Part of "The Contemporary Science series."

Jātakas.—*Ummagga Jātaka.* Ummagga Jātaka.—The story of the
Tunnel. Translated from the Sinhalese by T. B. Yatawara.
London, 1898. 8°

Jogendra Chundra Ghose. The Principles of Hindu Law. *Calcutta*,
1903. 8°

Jørgensen (Alfred) Micro-organisms and Fermentation . . . Translated
by A. K. Miller and A. E. Leunholm. Third edition . . .
revised etc. *London*, 1900. 8°

Kam (Dr. N. M.) Catalog von Sternen, deren Oerter durch selbstän-
dige Meridian-Beobachtungen bestimmt worden sind, aus Band 67
bis 112 der Astronomischen Nachrichten reducirt auf 1875, o von
Dr. N. M. Kam. Nach dessen Tod herausgegeben von H. G. van de
Sande Bakhuyzen. *Amsterdam*, 1901. 4°
Presd. by Akad. der Wissenschaften zu Amsterdam.

Keane (A. H.) The Gold of Ophir, whence brought and by whom?
London, 1901. 8°

Kipling (Rudyard) From Sea to Sea and other Sketches. Letters
of Travels. 2 vols. *London*, 1900. 8°

Knowles (Frederic Lawrence) A Kipling Primer, including bio-
graphical and critical chapters, an index to Mr. Kipling's principal
writings, and bibliographies . . . With . . . portraits. *London*,
1900. 8°

Lambert (J.) Description des échinides crétacés de la Belgique principalement de ceux conservés au Musée royal de Bruxelles. I Étude monographique sur le genre Echinocorys. *Bruxelles*, 1903. 4°

Extrait des Mémoires du Musée Royal d' Histoire Naturelle de Belgique.
Presd. by the Musée.

Le Strange (G.) Baghdad during the Abbasid Caliphate. From contemporary Arabic and Persian sources . . . With eight plans. *Oxford*, 1900. 8°

Lillington (Frank) The Brahma Samaj and Arya Samaj in their bearing upon Christianity. A study in Indian Theism. *London*, 1901. 8°

Lo Bianco (Dr. Salvatore) The Methods employed at the Naples Zoological station for the preservation of Marine Animals. *Washington*, 1899. 8°

From the Bulletin of the United States National Museum.
Presd. by the Smithsonian Institution.

Love (Lieut.-Col. H. D.) Descriptive List of Pictures in Government House and the Banqueting Hall, Madras. *Madras*, 1903. 4°

Presd. by the Government of Madras.

Mahan (Capt. A. T.) The Problem of Asia and its effect upon international policies. *London*, 1900. 8°

Manson (Patrick) Tropical Diseases. A Manual of the Diseases of warm climates . . . With . . . coloured plates. New and revised edition. *London*, 1903. 8°

Martin (W. A. P.) The Lore of Cathay ; or the intellect of China . . . Illustrated. *Edinburgh*, 1901. 8°

Merrill (George P.) Directions for Collecting Rocks and for the preparation of Thin sections. *Washington*, 1895. 8°

From the Bulletin of the United States National Museum.

Miller (Gerrit S.) Directions for preparing study specimens of small Mammals. *Washington*, 1901. 8°

From the Bulletin of the United States National Museum.
Presd. by the Smithsonian Institution.

Monier-Williams (Sir Monier) The Holy Bible and the Sacred Books of the East. Four addresses. To which is added a fifth address on Zenāna Missions. *London*, 1900. 8°

—————. A Sanskrit-English Dictionary, etymologically and philologically arranged with special reference to cognate Indo-European languages . . . New edition, . . . enlarged, . . . with the collaboration of . . . E. Leumann, . . . C. Cappeller and other scholars. *Oxford*, 1899. 4°

Mon Mohan Chakravarti. Notes on the remains in Dhanli and in the caves of Udayagiri and Khandagiri. *Cuttack*, 1902. fol.

Presd. by the Government of Bengal.

Müller (Right Hon. Friedrich Max) The Life and Letters of the Right Hon. F. M. Müller. Edited by his wife . . . With . . . illustrations. 2 vols. *London*, 1902. 8°

Mumford (John Kimberly) Oriental Rugs. [With plates and maps.] *London*, 1901. 4°

Murdoch (John) Inadequacy of Agricultural Banks to meet the needs of India: a supplementary measure absolutely necessary. *London and Madras*, 1903. 8°

—————. *India: Past and Present, etc.* *Madras*, 1903. 8°

—————. The Indian Young Man in the Battle of Life.

Hints to students on leaving College. *Madras*, 1903. 8°

Presd. by the Christian Literature Society of India, Madras.

Musée Guimet. Petit guide illustré au Musée Guimet par L. de Milloué. *Paris*, 1900. 8°

Presd. by the Musée.

Needham (James G.) Directions for collecting and rearing Dragon Flies, Stone Flies, and May Flies. *Washington*, 1899. 8°

From the Bulletin of the United States National.

Presd. by the Smithsonian Institution.

Nisbet (John) Burma under British Rule—and before . . . With maps [and illustrations]. 2 vols. *Westminster*, 1901. 8°

Olcott (Col. H. S.) Old Diary Leaves, the only authentic history of the Theosophical Society. Second series, 1878–83. *London*, 1900.

8°

Ostwald (Wilhelm) The Principles of Inorganic Chemistry . . .
Translated, etc. London, 1902. 8°

Paris.—Université. Le Livret de l'étudiant de Paris, etc. 1902-1903.
Melun, 1902. 8°

—————. Rapport du Conseil de l'Université de Paris. I.
Rapport sur la situation de l'Enseignement supérieur en 1901-1902.
II Rapports sur les travaux et les actes des établissements d.
Enseignement supérieur pendant l'année scolaire, 1901-1902'
Paris, 1903. 8°

Presd. by the Université de Paris.

Philpot (Mrs. J. H.) The Sacred Tree, or the Tree in Religion and
Myth. London, 1897. 8°

Prague.—K. K. Sternwarte. Definitive Resultate aus den Prager
Polhöhen-Messungen von 1889 bis 1892 und von 1895 bis 1899 . . .
Herausgegeben von . . . L. Weinek. Prag., 1903. 4°

Presd. by K. K. Sternwarte.

Rajaram Ramkrishna Bhagawat. A Course of Eight Lectures on
the Sanskrit Language. Bombay, 1903. 8° 4.

Presd. by the Author.

Reynolds (Osborne) The Sub-mechanics of the Universe. Cam-
bridge, 1903. 4°

One of the Publications of the Royal Society of London.

Presd. by the Royal Society of London.

Rijnhart (Susie Carson) With the Tibetans in Tent and Temple.
Narrative of four years' residence on the Tibetan border, and of a
journey into the far interior. [With plates.] Edinburgh, 1901.
8°

Rames Chandra Datta. The Economic History of British India:
a record of Agriculture and Land Settlements, Trade and Manufac-
turing Industries, Finance and Administration from . . . 1757 to
1837. London, 1902. 8°

—————. Famines and Land Assessments in India.
London, 1900. 8°

Ross (Major Ronald) I.M.S. Mosquito Brigades, and how to organise
them. London, 1902. 8°

Rouse (William Henry Denham) Greek Votive Offerings. An essay in the history of Greek Religion. *Cambridge*, 1902. 8°

Royal Society of London. Reports of the Sleeping Sickness Commission. *London*, 1903. 8°

In progress.

Presd. by the Society.

Schuchert (Charles) Directions for collecting and preparing Fossils. *Washington*, 1895. 8°

From the Bulletin of the United States National Museum.

Presd. by the Smithsonian Institution.

Seyffert (Oskar). A Dictionary of Classical Antiquities, Mythology, Religion, Literature and Art. From the German . . . With additions, by H. Nettleship . . . J. E. Sandys . . . With . . . illustrations. *London*, 1902. 4°

Skeat (Rev. Walter W.) A concise Etymological Dictionary of the English Language . . . New edition, etc. *Oxford*, 1901. 8°

Skrine (Francis Henry) Life of Sir William Wilson Hunter, etc. [With plates.] *London*, 1901. 8°

Smith (Arthur H.) China in Convulsion . . . With illustrations and maps. 2 vols. *Edinburgh and London*, 1901. 8°

Srisvar Vidyalkankar. Dilli-Mahotsava-Kavyam. A Sanskrit Poem on the Delhi-Durbar in six cantos . . . Edited with . . . notes . . . by Kokilesvar Bhattacharyya Vidyaratna. With . . . portraits. [*Calcutta*,] 1903. 8°

Presd. by the Editor.

SURVEY OF INDIA. Extract from the Narrative Report of the Survey of India. *Calcutta*, 1903, etc. fol.

In progress.

Presd. by the Survey.

SUSHRUTA. Sushruta Sanhita . . . Edited . . . by Pandit Jivananda Vidyasagara. Fourth edition. *Calcutta*, 1899. 8°

Presd. by Dr. A. F. R. Hoernle.

Tassin (Wirt) Directions for Collecting Minerals. *Washington*, 1895. 8°

From the Bulletin of the United States National Museum.

Presd. by the Smithsonian Institution.

Thomson (Major George S.) and (Dr. John) A Treatise on Plague, etc. London, 1901. 8°

Thurston (Edgar) Monograph on the Ivory Carving Industry of Southern India. With . . . plates. Madras, 1901. fol.
Presd. by the Author.

THE TIMES ATLAS. New edition, etc. London, 1900. fol.

Townsend (Meredith) Asia and Europe. Studies presenting the conclusions formed by the author in a long life devoted to the subject of the relations between Asia and Europe. Westminster, 1901. 8°

'Umar Khayyām. The Ruba'iyat of Omar Khayyam. Translated by E. Fitzgerald. With a commentary by H. M. Batson and a biographical introduction by E. D. Ross. London, 1900. 8°

THE UNADA: or the Solemn Utterances of the Buddha. Translated from the Pali by Major-Genl. D. M. Strong. London, 1902. 8°

Watt (Sir George) and Mann (Harold H.) The Pests and Blights of Tea Plants. (Second edition.) Calcutta, 1903. 8°
Presd. by the Reporter on Economic Products to the Government of India.

Westermarck (Edward). The History of Human Marriage. (Third edition.) London, 1901. 8°

Wigram (Herbert) Malabar Law and Custom . . . Second edition, by L. Moore. Madras, 1901. 8°

Woodroffe (John George) The Law relating to Receivers in British India. Calcutta, 1903. 8°
Tagore Law Lectures, 1897.

Presd. by the Calcutta University.

Yate (Major A. C.) Lieutenant-Colonel John Haughton, Commandant of the 36th Sikhs, a hero of Tirah. A memoir. London, 1900. 8°

Yate (Lieut.-Col. C. E.) Khurasan and Sistan . . . With map and illustrations. Edinburgh, 1900. 8°



Young (Col. Keith) Delhi 1857. The siege, assault, and capture, as given in the diary and correspondence of the late Col. K. Young . . . Edited by Gen. Sir H. W. Norman . . . and Mrs. K. Young with a memoir and introduction by Sir H. W. Norman. With illustrations and maps, *etc.* London, 1902. 8°

Zittel (Karl Alfred von) History of Geology and Palæontology to the end of the nineteenth century. Translated by Maria M. Ogilvie-Gordon. With portraits. London, 1901. 8°



LIBRARY.

THE following books have been added to the Library from January to March, 1904.

AIYÂDGÂR-I-ZABIRÂN, Shatrôihâ-i-Airân, and Afdiya va Sahigiya-i-Sistân. Translated with notes by Jivanji Jamshedji Modi. *Bombay*, 1899. 8°

*Presd. by the Trustees of the Parsee Punchayet Funds
and Properties, Bombay.*

AL-BATTÂNI SIVA ALBATENII OPUS ASTRONOMICUM. Ad fidem codicis escurialensis Arabice editum latine versum, adnotationibus instructum a Carolo Alphonso Nallino. *Mediolani Insubrum*, 1903. 4°

In progress.

Pubblicazioni del Reale Osservatorio di Brera in Milano.

Presd. by the Reale Osservatorio de Brera in Milano.

Ameer Ali, *Syed*. The Spirit of Islam, or the life and teachings of Mohammed. *Calcutta*, 1902. 8°

ARDA VIRAF NAMEH. The original Pahlavi text, with an introduction, notes, Gujarati translation, and Persian version of Zartosht Behram in verse. By Dastur Kaikhusru Dastur Jamaspji Jamasp Asa. *Bombay*, 1902. 8°

*Presd. by the Trustees of the Parsee Punchayet Funds
and Properties, Bombay.*

Arnott (M. H.) Report with photographs of the repairs executed to some of the principal temples at Bhübânêsvâr and caves in the Khândâgiri and Udaigiri Hills, Orissa, India, between 1898 and 1903. *London*, 1903. Obl.

Presd. by the Government of Bengal.

BABAD TANAH DJAWI, in proza. Javaansche Geschiedenis loopende tot het Jaar 1647 der Javaansche Jaartelling. Uitgegeven door J. J. Meinsma. 's-Gravenhage, 1903. 8°

In progress.

Presd. by the Koninklijk Instituut voor de Taal-, Land-en Volkenkunde van Nederlandsch-Indie.

Bailey (F. Manson) Contributions to the Flora of British New Guinea
[Brisbane, 1903.] fol.

Presd. by the Author.

Bald (Claud) Indian Tea: its culture and manufacture, etc. Calcutta,
1903. 8°

Beazley (C. Raymond) On an hitherto unexplained manuscript of
John de Plano Carpini. [London, 1902.] 8°

From "the Geographical Journal."

Presd. by the Government of India, Home Department.

Bertrand (C.-Eg.) Les Coprolithes de Bernissart. Première partie.
Les Coprolithes qui ont été attribués aux Iguanodons. Bruzelles,
[1903.] 4°

Extrait des Mémoires Musée Royal d'Histoire Naturelle de Belgique.

Presd. by the Musée.

Bevan (Edwyn Robert) The House of Seleucus...With plates and
maps, 2 vols. London, 1902. 8°

Boeck (Kurt) Durch Indien ins verschlossene Land Nepal. Ethno-
graphische und photographische Studienblätter, etc., Leipzig, 1903.
8°

BOMBAY RECORD OFFICE. Press List of Ancient Documents preserved
in the Bombay Record Office, 1646-1700. [Bombay, 1903.] fol.

Presd. by the Government of Bombay.

Bradley-Birt (F. B.) Chota Nagpore: a little-known province of the
Empire...With an introduction by the...Earl of Northbrook...With
...illustrations and a map. London, 1903. 8°

Presd. by the Government of Bengal.

British Museum. (*Natural History*). Catalogue of the Books,
Manuscripts, Maps and Drawings in the British Museum, etc.
London, 1903. 4°

In progress.

Catalogue of the collections of Palæartic Butter-
flies formed by the late J. H. Leech, and presented to the...
British Museum by his mother Mrs. E. Leech. By R. South.
London, 1902. 4°

First Report on Economic Zoology by F. V.
Theobald. London, 1903. 8°

British Museum. A Monograph of the Tsetse-flies—Genus *Glossina*, Westwood—based on the collection in the British Museum by E. E. Ansten. With a chapter on Mouth-parts by H. J. Hansen. London, 1903. 8°

Presd. by the Museum.

Buchanan (Major Andrew) Malarial Fevers and Malarial Parasites in India . . . Second edition, enlarged. Calcutta, 1903. 8°

Buckley (Charles Burton) An Anecdotal History of old times in Singapore . . . from . . . 1819 to . . . 1867. With portraits and illustrations. 2 vols. Singapore, 1902. 8°

BUDDEHAJIVANACARITAM. [A brief Hindi translation of Lalitavistara. Edited by Khunnilāla Sāstri.] Bareilly, [1903.] 8°

Presd. by the Editor.

BUNDEHESH. The Pahlavi Bundeshesh, lithographed by Maneckji Rustomji Unvalla. Bombay, 1897. 4°

Presd. by the Trustees of the Parsee Punchayet Funds

and Properties, Bombay.

Burgess (James) Digambara Jaina Iconography. Bombay, 1904. 4°
Reprinted from the "Indian Antiquary."

Presd. by the Author.

Butler (Alfred J.) The Arab Conquest of Egypt and the last thirty years of the Roman Dominion. [With maps.] Oxford, 1902. 8°

The CAMBRIDGE MODERN HISTORY. Planned by . . . Lord Acton . . . Edited by A. W. Ward, . . . G. W. Prothero, S. Leathes. Cambridge, 1903, etc. 8°

In progress.

Cassery (Capt. Gordon) The Land of the Boxers, or China under the Allies. With . . . illustrations, etc. London, 1903. 8°

Church (Percy W.) Chinese Turkestan, [with caravan and rifle. [With illustrations.] London, 1901. 8°

Clemow (Frank G.) The Geography of Disease. Cambridge, 1903. 8°

Darab Dastur Peshotan Sanjana. The Position of Zoroastrian Women in remote antiquity, as illustrated in the Avesta, the sacred books of the Parsees. Bombay, 1892. 8°

Presd. by the Trustees of the Parsee Punchayet Funds

and Properties, Bombay.

- Darwin (Charles)** More Letters of C. Darwin. A record of his work in a series of hitherto unpublished letters. Edited by F. Darwin . . . and A. C. Seward . . . Illustrated. 2 vols. *London*, 1903. 8°
- Dauids (T. W. Rhys)** Buddhist India. [With plates.] *London*, 1903. 8°
Part of "The Story of the Nations."
- Davidson (James W.)** The Island of Formosa, past and present. History, people, resources, and commercial prospects . . . With . . . maps . . . and . . . illustrations, etc. *London and New York*, 1903. 8°
- Edwardes (S. M.)** The Rise of Bombay. A retrospect. *Bombay*, 1902. 8°
Reprinted from Vol. X. of the Census of India Series, 1901.
Presd. by the Government of India, Home Department.
- Falke (Robert)** Der Buddhismus in unserem modernen deutschen Geistesleben. *Halle a. S.*, 1903. 8°
- Fausböll (V.)** Indian Mythology according to the Mahābhārata, in outline. *London*, 1903. 8°
Luzac's Oriental Religious Series, vol. I.
- Finn (Frank)** The Birds of Calcutta. *Calcutta*, 1901. 8°
- Francke (Rev. A. H.)** Notes on a Collection of Stone-Implements from Ladakh. *Bombay*, 1903. 4°
Reprinted from the "Indian Antiquary."
- _____. Ladakher Sprüchwörter und Rätsel. 2te Sammlung. [*Tibetan.*] 1903. 8°
- _____. The Ladakhi Pre-Buddhist Marriage Ritual. [*Tibetan.*] 1901. 8°
- _____. Reynard the Fox in Ladakh. [*Tibetan Texts.*] [1903.] 8°
Presd. by the Author.
- Freshfield (Douglas W.)** Round Kangchenjunga: A narrative of mountain travel and exploration . . . With illustrations and maps. *London*, 1903. 8°
- Fuzli Rubbee, Khondkar.** The origin of the Musalmans of Bengal: being a translation of "Haqiqate Musalman-i-Bengalah." *Calcutta*, 1895. 8°

Geiger (Wilhelm) and Windischmann (Friedrich H. H.) *Zurathushtra in the Gathas, and in Greek and Roman classics, translated from the German . . . With notes on M. Darmesteter's theory regarding the date of the Avesta . . . by Darab Dastur Peshotan Sanjana.* *Leipzig, 1897.* 8°

*Presd. by the Trustees of the Parsees Panchayet Funds
and Properties, Bombay.*

Gerrare (Wirt) *Greater Russia. The continental empire of the old world . . . With illustrations, etc.* *London, 1903.* 8°

Ghanasham Nilkanth Nadkarni, Rao Bahadur. *Journal of a Visit to Europe in 1896.* *Bombay, 1903.* 8°

Ghilardi (O.) *A Monograph on Wood-carving in Bengal.* *Calcutta, 1903.* fol.

Gibbs (E. J. W.) *A History of Ottoman Poetry... Edited by E. G. Browne.* vol. i. *London, 1900.* 8°

Grierson (G. A.) *Specimens of the Bengali and Assamese Languages.* *Calcutta, 1903.* 4°

Linguistic Survey of India, Vol. V, Pt. I.

Presd. by the Author.

Gurdon (Major P. R. T.) *Some Assamese Proverbs.—Second edition.* *Shillong, 1903.* 8°

Presd. by the Government of Assam.

Hakluyt [Richard] *The Texts and Versions of John de Plano Carpini and William de Rubruquis . . . Edited by C. R. Bleazley.* *London, 1903.* 8°

Presd. by the Government of India, Home Department.

Hall (H. Fielding) *The Soul of a People [the Burmese].* *London, 1903.* 8°

Hallock-Greenewalt (Mary) *Pulse and Rhythm.* [*Philadelphia, 1903.*] 8°

Reprinted from the Popular Science Monthly.

Presd. by the Author.

Hann (Dr. Julius) *Hand book of Climatology . . . Translated with additional references and notes by R. De C. Ward.* *New York, 1903.* 8°

- Harischandra A. Tälcherkar.** Lord Curzon in Indian Caricature: being a collection of cartoons, reproduced in miniature, selected from the illustrated comic Journals of India and arranged in chronological order with an elucidatory narrative. *Bombay*, 1902. 8°
- Hastings (James)** A Dictionary of the Bible . . . Edited by J. Hastings . . . Fifth impression, 4 vols. *Edinburgh*, 1903. 4°
- Hedin (Sven)** Central Asia and Tibet: Towards the holy city of Lassa . . . With . . . illustrations . . . and . . . maps, etc., 2 vols. *London*, 1903. 8°
- Hewlett (Richard T.)** A Manual of Bacteriology, clinical and applied . . . Second edition. [With plates.] *London*, 1902. 8°
- Hooker (Sir Joseph D.)** A Sketch of the Flora of British India. (under revision). *London*, 1904. 8°
Presd. by the Government of India, Revenue and Agricultural Department.
- Huart (Clément)** A History of Arabic Literature. *London*, 1903. 8°
- Hunter (Sir William Wilson)** The India of the Queen and other essays . . . Edited by Lady Hunter, with an introduction by F. H. Skrine. *London*, 1903. 8°
- Ibn Qotaiba.** Liber poësis et poëtarum quem edidit M. J. De Goeje. *Ingduni-Batavorum*, 1904. 8°
Presd. by the Université de Leyde.
- Imperial Library.** Catalogue of Books in the Reading Room. With supplement and index. *Calcutta*, 1903. 4°
Presd. by the Library.
- India Office.** Catalogue of two collections of Sanskrit Manuscripts preserved in the India Office Library. By C. H. Tawney and F. W. Thomas. *London*, 1903. 8°
Presd. by the Government of Bengal.
- Jackson (A. V. Williams)** Zoroaster, the Prophet of Ancient Iran. *New York*, 1899. 8°
- Jivanji Jamshedji Modi.** Astôdân, and recorded instances of children having been nourished by wolves and birds of prey. Two papers, etc. *Bombay*, 1889. 8°
- . Cucullin and Conloch and Rustam and Sohrâb. *Bombay*, 1893. 8°
- . Dante and Virâf and Gârdis and Kâus. *Bombay*, 1892. 8°

Jivanji Jamshedji Modi. A Dictionary of Avestic Proper Names, *etc.*
[In Gujrati]. *Bombay*, 1892. 8°

—————. The Funeral Ceremonies of the Parsees, their
origin and explanation. [With a plan.] *Bombay*, 1892. 8°

—————. The Game of Ball Bat—Chowgân Gui,—among
the ancient Persians, as described in the Epic of Firdousi. A
paper read . . . before the Bombay Branch Royal Asiatic Society.
Bombay, 1890. 8°

Presd. by the Trustees of the Parsee Panchayet Funds

and Properties, Bombay.

Jivanji Jamshedji Modi. The Parsees at the Court of Akbar and
Dastur Meherjee Rânâ. Two papers, *etc.* *Bombay*, 1903. 8°

Presd. by the Author.

—————. The Persian Mâr-nâmeh; or the Book for taking
Omens from snakes. *Bombay*, 1893. 8°

—————. The River Karum. *Bombay*, 1889. 8°

—————. Wine among the Ancient Persians. A lecture,
etc. *Bombay*, 1888. 8°

Karkaria (R. P.) The Teleology of the Pahlavi Shikand Gumanik
Vijar and Cicero's De Nature Deo-rum, *etc.* *Bombay*, 1897. 8°

KĀRNĀMAK-I-ĀRTAKHSHĪR PĀPAKĀN. The original Pahlavi text, with
transliteration in Avesta characters, translations into English and
Gujarati, and selections from the Shāhnâmeh. By Edalji Kersāspji
Āntiā, *etc.* *Bombay*, 1900. 8°

The **KĀRNĀMĪ-I-ĀRTAKHSHĪR-I-PĀPAKĀN**, being the oldest surviving
records of the Zoroastrian Emperor Ardashir Bābakan, the founder
of the Sāsāman dynasty in Iran. The original Pahlavi text edited
for the first time with a translation in Roman characters, transla-
tions into English and Guzerati languages, with . . . notes, an
introduction, and appendices. By Darab Dastur Peshotan Sanjana.
New edition . . . enlarged. *Bombay*, 1896. 8°

—————. Memoirs of King Ardashir, the founder of the
Seesanian dynasty. The Pahlavi text transliterated in Roman
characters, and translated into Gujrati. With a corresponding
account of his life, taken from the Shahnameh of Ferdosi. Edited
. . . by Kaikobad Adarbād Dastur Noshewan. *Bombay*, 1896. 8°

Kavasji Edalji Kanga. A Complete Dictionary of the Avesta
Language, in Guzerati and English, *etc.* *Bombay*, 1900. 8°

Presd. by the Trustees of the Parsee Panchayet Funds

and Properties, Bombay.

- Kerjes (B.) and Hamer (C. Den)** *De Tjandi Mendoet voor de Restauratie. 's-Gravenhage, 1903. fol.*
Presd. by the Bataviaasch Genootschap van Kunsten en Wetenschappen.
- KHUDĀ JUY-IBN-I-NĀMDAR.** [Kitāb-i-Jam-i-kaikhusru, i.e., An account of the revelations of Azar-Kaiwan.] [Bombay,] 1848. 8°
- Khudāyār Dastūr Shaharyār, Irani.** The Pahlavi Texts, containing Andarz-i-Ādarbād Māraspaudān, Andarz-i-Vehzād Farkho Fīrūz, Andarz-i-Khūsra-i-Kavādān, Mādīgān-i Chatrang, and Kārnā-mak-i Artakshlar-i-Pāpākan. With transliteration in Avesta character and translation in Persian. *Bombay, 1899. 8°*
Presd. by the Trustees of the Parsee Punchayet Funds and Properties, Bombay.
- Kroeber (Alfred L.)** *The Arapaho.* [New York, 1902.] 8°
From the Bulletin of the American Museum of Natural History.
Presd. by the American Museum of Natural History, New York.
- Lajonqui`re (E. Lunet de)** *Inventaire descriptif des Monuments du Cambodge.* Paris, 1902. 8°
Publications de l'École Française d'Extrême-Orient.
- Lane-Poole (Stanley)** *Islām: a prelection delivered before the University of Dublin, etc.* Dublin, 1903. 8°
- Lang (Andrew)** *Social Origins.* By A. Lang . . . *Primal Law.* By J. J. Atkinson. London, 1903. 8°
- Lefroy (H. Maxwell)** *Insect pests of Coffee in South India.* Bombay, 1903. 8°
Bulletin of the Department of Agriculture in India, No. 2.
Presd. by the Author.
- Lemire (Ch.)** *La France et le Siam. Nos relations de 1662 à 1903: le traité du 7 Octobre 1902. Avec cartes et gravures.* Angers and Paris, 1903. 8°
Extracted from "La Revue de l'Anjou."
- Leturneau (Charles)** *La Condition de la femme dans les diverses races et civilisations . . . Avec une notice biographique par G. Papillanlt.* Paris; 1903. 8°
- Lohest (Max.) and OTHERS.** *La Géologie and la reconnaissance du terrain houiller du nord de la Belgique.* Liège, 1904. 8°
Presd. by the Université de Liège.

- Loti (Pierre)** *L' Inde—sans les Anglais.* Paris, [1903.] 8°
- Lyman (Benjamin Smith)** Biographical Notice of J. Peter Lesley. [New York, 1903.] 8°
Transactions of the American Institute of Mining Engineers.
 _____ Silver-Mining and Smelting in Mongolia. [New York, 1902.] 8°
Transactions of the American Institute of Mining Engineers.
Presd. by the Author.
- MĀDIGĀN-I-HAZĀR DĀDĪSTĀN** [i.e., an Account of 1,000 opinions, by Farkhomard], a photozincographed facsimile of a M.S. . . . With an introduction by Jivanji Jamshedji Modi, etc. Poona, 1901. 4°
Presd. by the Trustees of the Parsee Panchayet Funds and Properties, Bombay.
- Majid (A.)** Monograph of Wood-Carving in Assam. Shillong, 1903. 8°
- Mann (Harold H.)** The Tea Soils of Cachar and Sylhet. *Indian Tea Association: Calcutta*, 1903. 8°
- A MAP OF THE TEA DISTRICTS OF ASSAM AND BENGAL. *Indian Tea Association: [Calcutta,] 1902.* fol.
- Merrill (Elmer D.)** Report on investigations made in Java in the year 1902. Manila, 1903. 8°
No. 7 of the Bulletin of the Department of the Interior, Forestry Bureau, Manila.
Presd. by the Department of the Interior, Forestry Bureau, Manila.
- Mills (Rev. Lawrence H.)** The Initiative of the Avesta. An inaugural lecture delivered at the Indian Institute in Oxford, etc. Hertford, 1899. 8°
- MOHL. (JULES).** An Introduction to the Shahnameh of Firdousi from the French of Jules Mohl, by Jamshedji Dorabji Khandalwala, [Baroda,] 1898. 8°
- Nasarvanji Bairāmji.** Reference to a model of a Tower of Silence,—with explanatory notes relating to the mode of the disposal of dead bodies of the Parsees, etc. [With a plan.] Bombay, 1899. 8°
Presd. by the Trustees of the Parsee Panchayet Funds and Properties, Bombay.

Nielsen (Konrad) Die Quantitätsverhältnisse im Polmaklappischen.
Helsingfors, 1902. 8°

Sonderabdruck aus den Mémoires de la Société Finno-ougrienne, XX.

Presd. by the Société Finno-ougrienne.

NIRANGISTAN. A photozincographed facsimile of a MS. belonging to Shams-ul-Ulama Dastur Dr. Hoshangjee Jamaspjee of Poona. Edited, with an introduction and collation with an older Iranian MS. in the possession of Ervad Tahmuras D. Anklesaria by Darab Dastur Peshotan Sanjana. *Bombay, 1894. 8°*

Nishikanta Chattopadhyaya. Lecture in Zoroastrianism. *Bombay, 1894. 8°*

Presd. by the Trustees of the Parsee Panchayet Funds

and Properties, Bombay.

Oman (John Campbell) The Mystics, Ascetics, and Saints of India : a study of Sadhuism, with an account of Yogis, Sanyasis, Bairagis, and other Hindu Sectarians . . . With illustrations by W. C. Oman. *London, 1903. 8°*

Omont (Henri) Missions archéologiques françaises en Orient aux XVIIe et XVIIIe siècles. Documents publiés par H. Omont. 2 pts. *Paris, 1902. 4°*

PARIMITI and PIYALABA. [Manual of Mensuration and Surveying for Mondals and Patwaries of Assam.] *Shillong, [1903.] 8°*

Government of Assam.

Plunket (Hon. Emmeline M.) Ancient Calendars and Constellations . . . With illustrations. *London, 1903. 8°*

PRAJNĀPĀRAMITĀ SUTRAM. [First part of Buddha's sayings with Hindi translation. Edited by Khunnilāla Sāstri.] *Bareilly, [1903.] 8°*

Presd. by the Editor.

Promatha Nath Mullick. History of the Vaisyas of Bengal. *Calcutta, 1902. 8°*

Presd. by the Author.

Rait (Robert S.) The Life and Campaigns of Hugh, first Viscount Gough, Field-Marshal . . . With maps and . . . illustrations, 2 vols. *Westminster, 1903. 8°*

Rakhaldas Ghosh. A Treatise on Materia Medica and Therapeutics, etc. *Calcutta, 1903. 8°*

- Ramstedt (G. J.)** Über die Konjugation des Khalkha—Mongolischen. *Helsingfors*, 1902. 8°
Sonderabdruck aus den Mémoires de la Société Finno-ougrienne, XIX.
Presd. by the Société Finno-ougrienne.
- Ravi Varma, the Indian Artist.** [With coloured plates.] *Allahabad*, [1903.] 4°
- Romesh C. Dutt.** Speeches and Papers on Indian Questions, 1897 to 1900. *Calcutta*, 1902. 8°
- Rowe (Jesse Perry)** Some Volcanic Ash Beds of Montana. *Montana*, 1903. 8°
Bulletin of the University of Montana.
Presd. by the University of Montana.
- Sayce (A. H.)** The Religions of Ancient Egypt and Babylonia, etc. *Edinburgh*, 1903. 8°
- SELECTIONS from the Satara Rajas and the Peishawas' Diaries. Prepared by Rao Bahadur Ganesh Chimnaji Vad. And a General Introduction by M. G. Ranade. *Satara*, [1902, etc.] 8°
In progress.
Presd. by the Government of India, Home Department.
- Sergi (G.)** Gli Arii in Europa e in Asia. Studio etnografico con figure e carte. *Torino*, 1903. 8°
- Shafi-uddin-Khan.** The Khayaban-i-ajam containing lives of Persian poets and abstract of their poetical works. First edition. *Sadhora*, [1903.] 8°
Historical Series, No. 1.
Presd. by the Author.
- Slater (T. E.)** The Higher Hinduism in Relation to Christianity, certain aspects of Hindu Thought from the Christian standpoint ...Second and revised edition. *London*, 190 . 8°
- Spitama Zarathashtra.** Text, Translation and Commentary of the original speech of Spitama Zarathushtra (yasna 45). By Framroz Sorabjee Master. *Bombay*, 1900. 8°
Presd. by the Trustees of the Parsee Punchayet Funds and Properties, Bombay.
- Strachey (Sir John)** India: its administration and progress...Third edition...enlarged. [With a map.] *London*, 1903. 8°

Subal Chandra Mitra. *Isvar Chandra Vidyasagar: a story of his life and work...* With an introduction by K. C. Dutt. *Calcutta*, 1902. 8°

Swynnerton (Rev. Charles) *Romantic Tales from the Punjab.* With illustrations by native hands, etc. *Westminster*, 1903. 8°

Talbot (W. A.). *The Trees, Shrubs, and Woody-Climbers of the Bombay Presidency...* Second edition. *Bombay*, 1902. 8°

TEXTS ABOUT BODH GAYA AND BUDEHA, OR BUDHAGAYA—a Hindu Shrine.
[*Calcutta*, 1903.] 8°

Presd. anonymously.

Tunk (Dr. H. N. van der) *Beberapa Tjeritera Malajoe.* *s'-Gravenhage*, 1903. 8°

Presd. by the Koninklijk Instituut voor de Taal,—Land-en Volken—kunde van Nederlandsch-Indie.

Tylor (Edward B.) *Primitive Culture: researches into the development of mythology, philosophy, religion, language, art and custom...* Fourth edition, revised. 2 vols. *London*, 1903. 8°

Velandai Gopala Aiyer. *The Chronology of Ancient India.* *Madras*, 1901. 8°

Vidyadhara. *The Ekāvallī of Vidyādhara with the commentary, Tara-lā, of Mallinātha and with a... notice of manuscripts, introduction and... notes by K. P. Trivedī.* *Bombay*, 1903. 8°
Bombay Sanskrit Series, No. 63.

Vishwanath Sahay. *Vedas Lost. Books I—IV.* *Ajmer*, 1903. 8°
Presd. by the Author.

Waddell (L.A.) *Report on the Excavations at Pataliputra (Patna), the Palibothra of the Greeks.* *Calcutta*, 1903. 8°
Presd. by the Government of Bengal.

Weber (Carl Otto) *The Chemistry of India Rubber,...* With... plates and... illustrations, etc. *London*, 1902. 8°

Whigham (H. J.) *The Persian Problem. An examination of the rival positions of Russia and Great Britain in Persia, with some account of the Persian Gulf and Bagdad Railway...* With maps and illustrations. *London*, 1903. 8°

Wildeman (Émile de) Notices sur des plantes utiles ou intéressantes de la flore du Congo. *Bruzelles*, 1903. 8°

Publication de l'État Indépendant du Congo.

Presd. by l'État Indépendant du Congo.

Wilhelm (Dr. Eugene) and Bomonji Byramji Patel, Khan Bahadur. Catalogue of Books on Iránian Literature published in Europe and India, etc. *Bombay*, 1901. 8°

On the use of Beef's Urine according to the precepts of the Avesta and on similar customs with other nations. *Bombay*, 1889. 8°

Presd. by the Trustees of the Parsee Punchayet Funds

and Properties, Bombay.

Wilson (C. R.) A Note on the English Chiefs at Balasor in the Bay of Bengal, 1633-1650. [*Calcutta*,] 1903. 8°

Note on the Episcopal Residence in Calcutta, 1824-1849. *Calcutta*, 1903. 8°

Presd. by the Author.

Wilson-Carmichael (Amy) Things as they are. Mission work in Southern India, etc. [Illustrated.] *London*, 1904. 8°

ZAND-I-VÔHUMAN YASHT. The Text of the Pahlvi Zand-i-Vôhuman Yasht, with transliteration and translation into Gujrati, and Gujrati translation of the Pahlvi Mino-i-Khirad, with notes by Kaikobâd Âdarbâd Dastur Noshervân. [*Poona*, 1899.] 4°

ZENDAVESTA—GATHAS. A Study of the five Zarathushtrian—Zoroastrian—Gâthâs, with texts and translations, also with the Pahlavi translations for the first time edited with collation of manuscripts, and now prepared from all the known codices, also deciphered, and for the first time translated in its entirety into a European language, with Neryosangh's Sanskrit text edited with the collation of five MSS., and with a first translation, also with the Persian text contained in Codex 12^b of the Munich collection edited in transliteration, together with a commentary, being the literary apparatus and argument to the translation of Gâthâs in the XXXIst volume of the Sacred Books of the East, by L. H. Mills. Pts. I-IV, Yasna XXVIII, XXXIV, XLIII-LI, LIII. *Leipzig*, 1894. 8°

ZENDAVESTA.—Vendidâd. The Vendidâd. A new edition, prepared by Ervad Eduljee Kersaspjee Antia, etc. *Bombay*, 1901. 8°

ZENDAVESTĀ.—The Zand ī Javit Shéda Dād; or the Pahlavi version of the Avesta Vendidād . . . Edited, with . . . appendices on the history of Avesta literature, by Darab Dastur Peshotan Sanjana. *Bombay*, 1895. 8°

*Presd. by the Trustees of the Parsee Panchayet Funds
and Properties, Bombay.*



LIBRARY.

THE following new books have been added to the Library from April to June 1904. The continuations of all the serials and works in progress have been received.

Adams (Thomas Sewall) Index Members and the Standard of Value. *Baltimore*, 1902. 8°.

Presd. by the Johns Hopkins University.

Ahlenius (K.) En Kinesisk Världskarta från 17: de Århundradet. *Upsala*, 1903. 8°.

Skrifter utgifna af K. Humanistiska Vetenskaps-Samfundet i Uppsala, VIII. 4.

Presd. by K. Humanistiska Vetenskaps-Samfundet i Uppsala.

Apastamba. चापसम्भोय धर्मसूत्रम् Aphorisms on the Sacred Law of the Hindus . . . Edited, with extracts from the commentary, by G. Bühler . . . Second edition, revised. 2 pts. *Bombay*, 1892-94. 8°.

Nos. XLIV and L of the Bombay Sanskrit Series.

Presd. by the Director of Public Instruction, Bombay.

ARCHAEOLOGICAL SURVEY, UPPER PROVINCES. Annual Progress Report, with Photographs and Drawings, for the year ending 31st March 1903. [*Naini Tal and Boorkee*, 1903.] fol.

Presd. by the Government of the Upper Provinces.

Aulad Hasan (Sayid). Notes on the Antiquities of Dacca. *Dacca*, 1904. 8°.

Presd. by the Author.

Bailey (Rev. T. Grahame) Punjābi Grammar. A Brief Grammar of Punjābi as spoken in the Wazirābad District. *Lahore*, 1904. 8°.

Presd. by the Government of the Panjab.

Bāna Bhatta. Bāna's Kadambari. Edited by P. Peterson . . . Third edition, etc. 2 pts. *Bombay*, 1900, 1899. 8°.

No. XXIV of the Bombay Sanskrit Series.

Presd. by the Director of Public Instruction, Bombay.

Baxter (Arthur H.) The Introduction of Classical Metres into Italian Poetry and their development to the beginning of the nineteenth century. *Baltimore*, 1901. 8°.

Presd. by the Johns Hopkins University.

Bergholz (Paul) The Hurricanes of the Far East . . . English translation revised . . . by R. H. Scott . . . With . . . plates, etc. *Bremen* and *Shanghai*, 1902. 8°.

Berry (Arthur) A Short History of Astronomy. [With illustrations.] *London*, 1898. 8°.

Bhatti. The Bhatti-Kāvya or Rāvanavadha composed by Sri Bhatti . . . Edited with the commentary of Mallinātha and with . . . notes by Kamalāsāṅkara Praṇsaṅkara Trivedi. 2 vols. *Bombay*, 1898. 8°.

Nos. LVI and LVII of the Bombay Sanskrit Series.

Bhimāchāryya Jhalakīkar (Mahāmahāpādhyāya.) Nyāyakośa or Dictionary of the technical terms of the Nyāya Philosophy, &c. . . . Second edition. *Bombay*, 1893. 8°.

No. XLIX of the Bombay Sanskrit Series.

Presd. by the Director of Public Instruction, Bombay.

BOMBAY PLAGUE RESEARCH LABORATORY. Summarised Report of the Plague Research Laboratory for 1902-1904. [*Bombay*, 1904.] fol.
Presd. by the Director-in-Chief, Bombay Plague Research Laboratory.

Britton (Wilton Everett) Vegetation of the North Haven Sand Plains. [*Boston*, 1903.] 8°.

Reprinted from the Bulletin of the Torrey Botanical Club.

Presd. by the Yale University.

Brooks (William K.) The Genus Salpa. *Baltimore*, 1893. 4°.

Brown (George Dobbin) Syllabification and Accent in the Paradise Lost. *Baltimore*, 1901. 8°.

Presented by the Johns Hopkins University.

Burgess (Jas.) and Cousins (Henry) The Architectural Antiquities of Northern Gujrat, more especially of the Districts included in the Baroda State. *London*, 1903. 4°.

Archæological Survey of India, New Imperial Series, vol. XXXII.

Presd. by the Government of India, Revenue and Agricultural Department.

- Chambers (Victor John)** A further Investigation of the Action of Phenols and Alcohols on the Chlorides of Paranitroorthosulphobenzoic Acid. *Easton, Pa.*, 1901. 8°. *Presd. by the Johns Hopkins University.*
- Clark (Charles Upson)** The Text Tradition of Ammianus Marcellinus. *New Haven*, 1904. 8°. *Presd. by Yale University.*
- Clark (Friend E.)** The Action of Substituted Ammonias of the Aliphatic Series on the Chlorides of Orthosulphobenzoic Acid. *Easton, Pa.*, 1902. 8°.
- Coble (A. B.)** The relation of the Quartic Curve to Conics. *New Haven*, 1903. 8°. *Reprinted from the Transactions of the American Mathematical Society, vol. 4, No. 1.* *Presd. by the Johns Hopkins University.*
- Colvin (Caroline)** The Invasion of Ireland by Edward Bruce. *Philadelphia*, 1901. 8°.
- Conklin (Edwin G.)** Karyokinesis and Cytokinesis in the Maturation, Fertilization and Cleavage of *Crepidula* and other Gastropoda. *Philadelphia*, 1902. 4°. *Reprinted from the Journal of the Academy of Natural Sciences of Philadelphia, 2 series, vol. XII, Part I.* *Presd. by the University of Pennsylvania.*
- Contzen (Leopold)** Goa im Wandel der Jahrhunderte. Beiträge zur portugiesischen Kolonialgeschichte. *Berlin*, 1902. 8°.
- Curbipet.** Fragments of the Elements and Principles of the nature of the Life of Man or the condensed Laws of the Religion of the Civilised. *Bombay*, 1904. 12°. *Presd. by Messrs. G. Olaridge & Co., Bombay.*
- Curtis (Winterton C.)** The Life History, the Normal Fission and the Reproductive Organs of *Planaria Maculata*. *Boston*, 1903. 8°. *Proceedings of the Boston Society of Natural History, vol. 30, No. 7.* *Presd. by the Johns Hopkins University.*
- Dandin.** दशकुमार चरितम् The *Daśakumaracharita* of Daṇḍin. Edited with . . . notes by P. Peterson. Pt. II. *Bombay*, 1891. 8°. *No. XLII of the Bombay Sanskrit Series.* *Presd. by the Director of Public Instruction, Bombay.*

- Douglas (James McDowell)** The Dissociation of certain Acids, Bases and Salts, at different Temperatures. *Easton, Pa.*, 1901. 8°. *Presd. by the Johns Hopkins University.*
- Drake (John)** Grammar of the Kúrkú Language. *Calcutta*, 1903. 8°. *Presd. by the Government of India, Home Department.*
- Eckels (William Alexander)** *Oere* as an Index of Style in the Orators. *Baltimore*, 1901. 8°. *Presd. by the Johns Hopkins University.*
- Edmunds (Albert J.)** Buddhist and Christian Gospels, etc. Second edition. *Philadelphia*, 1904. 8°. *Presd. by the Author.*
- EDUCATION.** Occasional Reports, No. 1. Rural Schools in the Central Provinces by H. Sharp. *Calcutta*, 1904. 8°.
- Progress of Education in India, 1897-98 to 1901-02. By B. Nathan. 2 vols. *Calcutta*, 1904. fol. *Presd. by the Director-General of Education in India.*
- Elrod (Morton J.)** A Biological Reconnaissance in the vicinity of Flathead Lake. *Missoula*, 1902. 8°. *Bulletin, University of Montana, No. 10.* *Presd. by the University of Montana.*
- Ewing (Arthur H.)** The Hindu Conception of the Functions of Breath. A Study in early Hindu Psycho-Physics. *New Haven*, 1901, 8°. *Reprinted from the Journal of the American Oriental Society, vol. XXII, Pt. 2.*
- Ewing (James Rees)** Public Services of Jacob Dolson Cox. *Washington*, 1902. 8°. *Presd. by the Johns Hopkins University.*
- Fanshawe (H. C.)** Delhi, past and present . . . With . . . illustrations. *London*, 1902. 8°.
- Foote (Theodore Clinton)** The Ephod: its form and use. *Baltimore*, 1902. 8°. *Reprinted from the Journal of Biblical Literature, vol. XXI Pt. I, 1902.* *Presd. by the Johns Hopkins University.*
- Forrest (G. W.)** Cities of India. [With illustrations.] *Westminster*, 1903. 8°.

Francke (A. Theodora) SNgonmai ladvags rgyalpoi lorgyus dang Singpái dmaggi lorgyus. Deutsche übersetzung von A. Theodora Francke. () 8°.

Presd. by the Rev. A. H. Francke.

Franke (E. Otto) Páli und Sanskrit in ihrem historischen und geographischen Verhältnis auf Grund der Inschriften und Münzen. *Strassburg*, 1902. 8°.

Frazer (Joseph Christie Whitney) I. On relations between the Color and the Composition and Constitution of the Alkali Salts of Nitrophenols. II. Comparison of the Metasulphaminebenzoic Acids made by different Methods. *Easton, Pa.*, 1901. 8°.

Frost (Francis Lejau) The "Art de Contemplacio" of Ramon Lull. *Baltimore*, 1903. 8°.

Presd. by the Johns Hopkins University.

Futterer (K.) Geographische Skizze der Wüste Gobi zwischen Hami und Su-tschön. *Gotha*, 1902. 8°.

Ergänzungsheft Nr. 139 zu "Petermanns Mitteilungen."

Gamble (J. S.) A Manual of Indian Timbers. An account of the growth, distribution, and uses of the trees and shrubs of India and Ceylon, with descriptions of their wood-structure . . . Revised edition. *London*, 1902. 8°.

Gilbert (Norman E.) Some Experiments upon the relations between Ether, Matter, and Electricity. *Baltimore*, 1901. 8°.

From Terrestrial Magnetism and Atmospheric Electricity for December, 1901.

Presented by the Johns Hopkins University.

Girendra Nath Dutt. Kavita Vallari. [In Bengali.] *Calcutta*, 1903. 8°.

Presd. by the Author.

Grimm (Karl J.) Ephemistic Liturgical Appendices in the Old Testament. *Baltimore*, 1901. 8°.

Presd. by the Johns Hopkins University.

Gurdon (Major P. R. T.) Note on the Khasis, Syntengs, and Allied Tribes, inhabiting the Khasi and Jaintia Hills. *Shillong*, 1904. fol.

Presd. by the Author.

Guttmacher (Adolf) Optimism and Pessimism in the Old and New Testaments. *Baltimore*, 1903. 8°.

Presd. by the Johns Hopkins University.

Haas (W. R. Tromp de) Jute-cultuur. *Batavia*, 1904. 8°.

———— Mededeelingen betreffende de Caoutchouc-Cultuur. III. Over de cultuur van *Ficus elastica*. [*Batavia*, 1904.] 8°.

Presd. by the Botanic Institute of Buitenzorg.

Haggett (Arthur Sewall) A Comparison of Apollonius Rhodius with Homer in Prepositional Usage. *Baltimore*, 1902. 8°.

Hamilton (Hollister Adelbert) The Negative Compounds in Greek. *Baltimore*, 1899. 8°.

Presd. by the Johns Hopkins University.

Harris (Henry John) Present condition of the Handworking and Domestic Industries of Germany. *Washington*, 1902. 8°.

Presd. by the University of Pennsylvania.

Haydn (Joseph) and Vincent (Benjamin) Dictionary of Dates and Universal information relating to all ages and nations. 23rd edition. *London*, 1904. 8°.

Hehn (Victor) Kulturpflanzen und Haustiere in ihrem Übergang aus Asien nach Griechenland und Italien sowie in das übrige Europa. Historisch-linguistische Skizzen . . . Siebente Auflage, neu herausgegeben von O. Schrader . . . Mit botanischen Beiträgen von A. Engler. *Berlin*, 1902. 8°.

Hemchandra. The *Deśināmamālā* of Hemchandra. Edited with . . . notes, a glossary, and . . . introduction, by Prof. R. Pischel and Dr. G. Bühler, etc. Pt. I. Text and critical notes. *Bombay*, 1880. 8°.

No. XVII of the Bombay Sanskrit Series.

———— The *Kumārapālācharita—Prākṛitā Dvyāśraya Kāvya*—by Hemchandra, being a Prākṛita poem intended to illustrate the eighth *adhyāya* of his own *Siddha—Hemachandra* or Grammar, with a commentary by *Pūrṇakalāsāgṇi*. Edited by *Shaṅkar Pāṇḍurang Paṇḍit*. *Bombay*, 1900. 8°.

No. LX of the Bombay Sanskrit Series.

Presd. by the Director of Public Instruction, Bombay,

Hicks (Fred Cole) Strengthening Modifiers of Adjectives and Adverbs in Middle High German. *Baltimore*, 1902. 8°.

Houser (Gilbert Logan) The Neurones and supporting elements of the Brain of a Selachian. [Granville.] 1901. 8v°.
Journal of Comparative Neurology, Vol. XI, No. 2. 1901.
Presd. by the Johns Hopkins University.

Hunger (Dr. F. W. T.) Invloed van het verspenen van Tabaksbibit. *Batavia*; 1904. 8°.
Presd. by the Botanic Institute of Buitenzorg.

Jacob (Col. G. A.) उपनिषद्संकोषः A Concordance to the principal Upanishads and Bhagavadgītā. *Bombay*, 1891. 8°.
No. XXXIX of the Bombay Sanskrit Series.
Presd. by the Director of Public Instruction, Bombay.

Jefferson (Alice MacMichael) Aromatic Bases as Precipitants for Rare Earth Metals. [*Philadelphia*, 1902.] 8°.
Reprinted from the Journal of the American Chemical Society.
Presd. by the Johns Hopkins University.

Jennings (William Ernest) A Manual of Plague . . . With an introduction by Surgeon-General G. Bainbridge. [With plates.] *London*, 1903. 8°.

JOHNS HOPKINS UNIVERSITY. Celebration of the Twenty-fifth Anniversary of the founding of the University. *Baltimore*, 1902. 8°.

Johnston (George Wesley) The Querolus, a syntactical and stylistic study. *Toronto*, 1900. 8°.
Presd. by the Johns Hopkins University.

Kalhana. The Rājatarānginī of Kalhana. Edited by Durgāprasād (Vol. III. containing the supplements to the works, of Jonarāja, Srivara and Prājyabhatta. Edited by P. Peterson.) 3 vols. *Bombay*, 1892-96. 8°.
Nos. XLV, LI and LIV of the Bombay Sanskrit Series.

Kālidāsa. The Mālavikāgnimitra, a Sanskrit play . . . with the commentary of Kāṭayavoma, edited with notes by Shankara Paṇḍurang. Paṇḍit . . . Second edition, etc. *Bombay*, 1889. 8°.
No. VI of the Bombay Sanskrit Series.
Presd. by the Director of Public Instruction, Bombay.

Faint, illegible text, possibly bleed-through from the reverse side of the page. The text is too light to transcribe accurately.

Kālidāsa. The Raghuvamśa of Kālidāsa, with the commentary of Mallinātha. Edited with notes, by Shankar P. Paṇḍit. Second edition. 3 pts. *Bombay, 1897, 1872, 1874.* 8°.

*Nos. V, VIII and XIII of the Bombay Sanskrit Series.
Pts. 2 and 3 are of the First edition.*

———— The Vikramorvaśīyam, a Sanskrit play, . . . edited with English notes containing extracts from two commentaries, by Shankar Paṇḍurang Paṇḍit . . . Revised and improved by Bhāskar Rāmchandra Arte . . . Third edition, etc. *Bombay, 1901.* 8°.

No. XVI of the Bombay Sanskrit Series.

Presd. by the Director of Public Instruction, Bombay.

Kammerer (Alfred Lewis) The Electrolytic Estimation of Bismuth and its separation from other metals. *Philadelphia, 1902.* 8°.

Presd. by the University of Pennsylvania.

Kennedy (Edwin Wexler) Quit-Rents and Currency in North Carolina. 1663-1776. *Baltimore, 1902.* 8°.

Presd. by the Johns Hopkins University.

Kloss (Boden C.) In the Andamans and Nicobars, The narrative of a cruise in the Schooner "Terrapin," with notices of the islands, their Fauna, Ethnology, etc. With maps and illustrations. *London, 1903.* 8°.

Lane-Poole (Stanley) Mediæval India under Mohammedan rule—A. D. 712-1764. [With illustrations.] *London, 1903.* 8°.

Part of the "Story of the Nations" series.

Lemire (Ch.) Les Mœurs des Indo-Chinois d'après leurs cultes, leurs lois, leur littérature et leur théâtre . . . Avec 2 cartes, etc., *Paris, 1902.* 8°.

Leonard (Arthur Gray) The Basic Rocks of North-Eastern Maryland and their relation to the Granite. *New Haven, 1901.* 8°.

From the American Geologist, September, 1901.

Lindsay (Charles Fowler) A study of the Conductivity of certain Salts in Water, Methyl, Ethyl, and, Propyl Alcohols, and mixtures of these solvents. *Easton, Pa. 1902.* 8°.

Long (Omera Floyd) On the usage of Quotiens and Quotienscunque in different periods of Latin. *Baltimore, 1901.* 8°.

Presd. by the Johns Hopkins University.

Loomis (Hiram B.) On the Effects of Temperature changes on Permanent Magnets. *New Haven*, 1890. 8°.

From the American Journal of Science, Vol. XVI, March, 1908.

Presd. by the Johns Hopkins University.

McMinn (Charles W.) Indian Trade and Bullion Import in the Eighteenth Century. *Calcutta*, 1904. 8°.

Presd. by the Author.

MADRAS MUNICIPAL ACCOUNT CODE. First edition. *Madras*, 1904. 8°.

Presd. by the Government of Madras.

Mainwaring (Lieut-Col. F. G. L. and others) The Gāndhāra Sculptures. A Symposium. *Dorchester*, 1903. 8°.

From Proceedings, Dorset Natural History and Antiquarian Field Club.

Presd. by Dr. James Burgess.

Mather (William T.) Ionic Velocities in Silver Salts, with Notes on the Volhard Method for the Analysis of Silver. *Easton Pa.* 1901. 8°.

Presd. by the Johns Hopkins University.

Merrill (Elmer D.) I. New or noteworthy Philippine Plants. II. The American Element in the Philippine Flora. *Manila*, 1904. 8°.

Bureau of Government Laboratories, Manila, No. 6.

———— A Dictionary of the Plant names of the Philippine Islands. *Manila*, 1908. 8°.

Bureau of Government Laboratories, Manila, No. 8.

Presd. by the Bureau of Government Laboratories, Manila.

Miles (Louis Wardlaw) King Alfred in Literature. *Baltimore*, 1902. 8°.

Presd. by the Johns Hopkins University.

Mohr (Dr. E. C. Julius) Over "Beslag" op Deli-Tabak. *Batavia*, 1904. 8°.

———— Over Tabaksasch als Meststof. *Batavia*, 1904. 8°.

———— Moet de Deli Tabaks-oogst geplukt of gesneden worden? *Batavia*, 1904. 8°.

Presd. by the Botanic Institute of Buitenzorg.

- Montague (Gilbert Holland)** The Rise and Progress of the Standard Oil Company. *New York and London.* [1908.] 8°. *Presd. by Messrs. Harper and Brothers, New York.*
- Montgomery (Thomas H.)** A study of the Chromosomes of the Germ Cells of Metazoa. [*Philadelphia,*] 1901. 4°. *Reprinted from the Transactions of the American Philosophical Society, vol. XX.* *Presd. by the University of Pennsylvania.*
- Montgomery (Walter Alexander)** Dio Chrysostom as a Homeric Critic. *Baltimore,* 1901. 8°. *Presd. by the Johns Hopkins University.*
- Moore (J. Percy)** Descriptions of two new Leeches from Porto Rico. *Washington,* 1901. 4°. *Extracted from U. S. Fish Commission Bulletin for 1900.* *Presd. by the University of Pennsylvania.*
- Morgan (J. de)** La Délégation en Perse du Ministère de l'Instruction publique, 1897 à 1902. [With plates.] *Paris,* 1902. 8°.
- Much (Matthæus)** Die Heimat der Indogermanen im Lichte der urgeschichtlichen Forschung. *Berlin,* 1902. 8°.
- Muhammad 'Awfi.** Part II of the Lubabu' 'l-Albab of Muhammad 'Awfi. Edited in the original Persian, with preface, indices and variants, by Edward G. Browne. *Leide,* 1903. 8°. *Persian Historical Texts, vol. II.* *Presd. by Messrs. Luzac & Co.*
- Murdoch (John)** India's Greatest Educational Need: The Adequate recognition of Ethics in her present transition state. *Madras,* 1904. 8°. *Presd. by the Author.*
- Murray (David)** Japan . . . Fourth impression. *London,* 1894. 8°. "*The Story of the Nations*" Series.
- MYSORE GEOLOGICAL DEPARTMENT.** Bulletin. No. 1. Mine signalling by W. F. Smeeth. No. 2. Air Blasts and Quakes on the Kolar Gold Field by W. F. Smeeth. *Bangalore,* 1904. 8°. *Presd. by the Mysore Geological Department.*

Nāgōjibhatta. The Paribhāshendusēkhara of Nāgōjibhatta. Edited [translated] and explained by F. Kielhorn. 2 pts. *Bombay*, 1868-74. 8°.

Nos. II, VII, IX and XII of the Bombay Sanskrit Series.

Nārāyana. Hitopadeśa . . . Edited by P. Peterson. *Bombay*, 1887. 8°. *No. XXXIII of the Bombay Sanskrit Series.*

Presd. by the Director of Public Instruction, Bombay.

Nitze (William Albert) The Old French Grail Romance Perlesvaus. A study of its principal sources. *Baltimore*, 1902. 8°.

Presd. by the Johns Hopkins University.

NORTH-WEST FRONTIER PROVINCE. Administration Report of the North-West Frontier Province from 9th November 1901 to 31st March, 1903. *Peshawar*, 1903. fol.

Presd. by the Chief Commissioner of N.-W. Frontier Province.

O'Brien (E.) Glossary of the Multani Language, or (South-Western Panjabi) revised by J. Wilson and Pandit Hari Kishen Kaul. *Lahore*, 1903. 8°.

Presd. by the Government of the Punjab.

Okakura (Kakasu) The Ideals of the East, with special reference to the art of Japan. *London*, 1903. 8°.

Padmagupta. The Navasāhasānka Charita of Padmagupta alias Parimala, Pt. 1. Containing the preface, the text with various readings and an index to the Slokas, edited by Pandit Vāmana. Shāstri Islāmpukar, *Bombay*, 1895. 8°.

No. LIII. of the Bombay Sanskrit Series.

PANCHATANTRA. Edited, with notes, by F. Kielhorn (Vols. 2-5 by G. Bühler) . . . Fourth edition, etc. 3 vols. *Bombay*, 1896, 1891. 8°.

Nos. I, III and IV, of the Bombay Sanskrit Series. Vol. I. is of the sixth edition.

Parāsara. The Parāsara Dharma Samhitā or Pārasara Smṛiti, with the commentary of Śāyana Mādhavāchārya. Edited . . . by Pandit Vāman Sāstri Islāmpukar. Vol I., Vol 2. Pt. I. *Bombay*, 1893-98. 8°.

Nos. XLVII, XLVIII and LIX of the Bombay Sanskrit Series.

Presd. by the Director of Public Instruction, Bombay.

Parker (Francis LeJau) A Study of the preparation of Permanganic Acid by Electrolysis. *Charleston*, 1902. 8°. *Presd. by the Johns Hopkins University.*

Pātanjali. The Vyākaraṇa-Mahābhāṣya of Pātanjali. Edited by F. Kielhorn . . . Second edition, revised. Vol I. *Bombay*, 1892, 8°. *Nos. XVIII, of the Bombay Sanskrit Series.*

——— Patanjalasūtrāṅgi with the Scholium of Vyāsa and the commentary of Vāchaspati. Edited by Rājārām Shāstri Bodas. *Bombay*, 1892. 8°. *No. XLVI of the Bombay Sanskrit Series.* *Presd. by the Director of Public Instruction, Bombay.*

Peel (C. V. A.) The Zoological Gardens of Europe : their history and chief features. [With illustrations.] *London*, 1903. 8°.

Pender (Harold) On the Magnetic Effect of Electrical Convection. () 1901. 8°. *Reprinted from The Physical Review, vol XIII. No. 4, 1901.*

Penick (Daniel Allen) Herodotos in the Greek Renaissance. *Baltimore*, 1902. 8°.

Penniman (Thomas Dobbin) Electrical Measurements. *Baltimore*, 1899. 8°.

Peppler (Charles William) Comic Terminations in Aristophanes and the Comic Fragments. Pt. I. Diminutives, Character Names, Patronymics. *Baltimore*, 1902. 8°. *Presd. by the Johns Hopkins University.*

Perkins (Henry Farnham) The Development of Gonionema Murba-chii. *Philadelphia*, 1903. 8°. *From the Proceedings of the Academy of Natural Sciences of Philadelphia, November, 1902.* *Presd. by the Johns Hopkins University.*

Perrot (Georges) and Chipiez (Charles) History of Art in Sardinia, Judæa, Syria, and Asia Minor . . . With . . . plates . . . Translated . . . by I. Gonino. 2 vols. *London, New York*, 1890. 8°.

Perrat (Georges) and Chipiez (Charles) History of Art in Persia
... With ... plates. *London*, 1892. 8°.

———— History of Art in Phrygia, Lydia, Caria, and Lycia ...
illustrated, etc. *London*, 1892. 8°.

———— History of Art in Primitive Greece. Mycenaean Art ...
With ... plates. 2 vols. *London*, 1894. 8°.

PHILIPPINE EXPOSITION BOARD. Circular Letter to Governor Taft and
information and instructions for the preparation of the Philippine
exhibit for the Louisiana Purchase Exposition to be held at St.
Louis, Mo. U. S. A., 1904. *Manila*, 1902. 8°.

———— Rules and Regulations of the Universal Exposition, St.
Louis, 1904. *St. Louis*, 1902. 8°.

———— Official classification of Exhibit Departments of the World's
Fair, St. Louis, 1904. *St. Louis*, 1902. 8°.

———— Publications in Ilocano, Pangasinan, Tagalog, Visol and
Visaya dialects of the Malay language spoken in the Philippine
Islands. *Manila*, 1903. 8°.

Presd. by the Philippine Exposition Board, Manila.

Fischel (R.) Bruchstücke des Sanskritkanons der Buddhisten aus
Idykutšari, Chinesisch-Turkestan. *Vienna*, 1904. 8°.

*Sitzungsberichte der königlich Preussischen Akademie der
Wissenschaften, XXV, 1904.*

Presd. by the Author.

Radford (Robert Somerville) Personification and the Use of Ab-
stract Subjects in the Attic Orators and Thukydides. Pt. I. *Bal-
timore*, 1901. 8°.

Presd. by the Johns Hopkins University.

Ramabai Sarasvati, Pandita. The High-Caste Hindu Woman ...
With introduction by the Board of Managers of the American
Ramabai Association. A new edition. *New York*, 1901. 8°.

Reese (Albert Moore) Structure and Development of the Thyroid
Gland in Petromyzon. *Baltimore*, 1900. 8°.

*From the Proceedings of the Academy of Natural Sciences of
Philadelphia, March, 1902.*

Presd. by the Johns Hopkins University.

Rogers (Allen) Derivatives of new complex Inorganic Acids. *Philadelphia*, 1902. 8°.

Presd. by the University of Pennsylvania.

Rosenau (William) Jewish Ceremonial Institutions and Customs, *Baltimore*, 1903. 8°.

———— Hebraisms in the authorised version of the Bible. *Baltimore*, 1902. 8°.

Rostowzew (M.) Tesserarum urbis Romæ et suburbi plumbeorum Sylloge. *St. Pétersbourg*, 1903. 4°.

Presd. by the Académie Impériale des Sciences, St. Pétersbourg.

Saffold (William Berney) The Construction with Iubeo. *Baltimore*, 1902. 8°.

Presented by the Johns Hopkins University.

Saint-Lager, (Dr.) La Perfidie des Homonymes : aloès purgatif et bois d'aloès aromatique [*Lyon.*] () 8°.

Presd. by the Author.

Samrād Jagannātha. The Rekhāganitā or Geometry in Sanskrit . . . Undertaken for publication by . . . Harilal Harshādarāi Dhruva . . . Edited . . . with . . . notes in English by Kamalāsāṅkara Prāñsāṅkara Trivedi, 2 vols., *Bombay*, 1901-02. 8°.

No. LXI and LXII of the Bombay Sanskrit Series.

Presd. by the Director of Public Instruction, Bombay.

Sārṅgadhara. The Paddhati of Sārṅgadhara. A Sanskrit Anthology. Edited by P. Peterson. Vol I. The text. *Bombay*, 1888. 8°.

No. XXXVII of the Bombay Sanskrit Series.

Presd. by the Director of Public Instruction, Bombay.

Sarre (Friedrich) Denkmäler persischer Baukunst. Geschichtliche Untersuchung und Aufnahme muhammedanischer Backsteinbauten in Vorderasien und Persien, etc. [With coloured and other plates.] *Berlin*, 1901. fol.

Schenck (Charles Carroll) Some properties of the Electric Spark and its Spectrum. *Baltimore*, 1901. 8°.

Reprinted from the Astronomical Journal, Vol. XIV, No. 2, 1901.

Presd. by the Johns Hopkins University.

Schmidt (Ernst) Beitrag zur Behandlung der chronischen Em-
pyme. *Giessen*, 1902. 8°.

Presd. by the University of Giessen.

Shattuck (George Burbank) The Mollusca of the Buda Limestone.
Washington, 1903. 8°.

Shaw (James Eustace) The use of Venire and Andare as Auxiliary
verbs in early Florentine Prose. Pt. I. The use with Past Parti-
ciples. *Baltimore*, 1903. 8°.

Presd. by the Johns Hopkins University.

Sherman (P. L.) The Gutta Percha and Rubber of the Philippine Is-
lands. *Manila*, 1903. 8°.

Bureau of Government Laboratories, Manila No. 7.

Presd. by the Bureau of Government Laboratories, Manila.

Shimmell (Lewis S.) Border Warfare in Pennsylvania during the
Revolution. *Harrisburg*, 1901. 8°.

Presd. by the University of Pennsylvania.

Silva (Armando da) O Aquario Vasco Da Gama. Relatorio apre-
sentado a sua Ex^a o Ministro da Marinha e Ultramar sobre o
estado d'este Estabelecimento e a sua reorganização, *Lisbon*,
1901. 8°.

Presd. by the Ministerio da Marinha e Ultramar, Lisbon.

Simmons (Ward Weaver) A further study of the so-called Infu-
sible Diamide of Parasulphobenzoic Acid. *Easton, P. A.* 1901. 8°.

Presd. by the Johns Hopkins University.

SOUTH AFRICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE. Report.
1903. *Cape Town*. [1903.] 8°.

Presd. by the Association.

Stiles (Percy Goldthwait) On the Rhythmic Activity of the Oeso-
phagus and the influence upon it of various Media. *Baltimore*,
1902. 8°.

Presd. by the Johns Hopkins University.

Sūdraka. The Mṛichchhakatika, or Toy Cart. A prakarana. Vol. I
containing . . . the Suvarṇālakṣaraṇa of Lalla Dikshita, and . . . a
vritti or vivritti by Prithvidhara; and . . . various readings.
Edited by Nārāyaṇa Bālakṛishna Godavoli. *Bombay*, 1896. 8°.

No. LII of the Bombay Sanskrit Series.

Presd. by the Director of Public Instruction, Bombay.

SURVEY OF INDIA. Extracts from Narrative Reports of the Survey of India for the season 1901-1902. *Calcutta*, 1904. fol.

Presd. by the Surveyor-General of India.

SUTRAS.—Vedanta Sutras. Vedanta Sutras with the commentary of Ramanuja. Translated by George Thibaut, Part III. *Oxford*, 1904. 8°.

Sacred Books of the East, vol. XLVIII.

Presd. by the Secretary of State for India in Council.

Taliaferro (Thomas Hardy) The Focal Surfaces of the Congruence formed by the Tangents to the lines of Curvature of a given Surface. *Baltimore*, 1901. 8°.

Presd. by the Johns Hopkins University.

Taylor (Isaac) The History of the Alphabet. An account of the origin and development of letters . . . New edition. 2 vols. *London*, 1899. 8°.

TIBET. Papers relating to Tibet. *London*, 1904. fol.

One of the Parliamentary Papers.

Presd. by the Government of India, Home Department.

Trumbull (James Hammond) Natick Dictionary. *Washington*, 1903. 4°.

Bulletin of the Bureau of American Ethnology, No. 25.

Presd. by the Smithsonian Institution.

Turner (Arthur Bertram) Secular Perturbations arising from the action of Jupiter on Mars. *Philadelphia*, 1902. 8°.

Presd. by the University of Pennsylvania.

UPANISADS.—Atharvāna-Upanisad. Eleven Ātharvāna Upanishads with Dipikās. Edited with notes, by Col. G. A. Jacob. *Bombay*, 1891. 8°.

No. XL of the Bombay Sanskrit Series.

UPANISADS.—Mahānārāyana-Upanisad. The Mahānārāyana-Upanishad of the Atharva-Veda with the Dipika of Nārāyana. Edited by Col. G. A. Jacob. *Bombay*, 1888. 8°.

No. XXXV of the Bombay Sanskrit Series.

Vakpati. The Gaṁḍavoho, a historical poem in Prakṛit . . . Edited by Shankar Pāṇḍurang Paṇḍit. *Bombay*, 1887. 8°.

No. XXXIV, of the Bombay Sanskrit Series.

Presd. by the Director of Public Instruction, Bombay.

Vallabhadeb. The Subhāshitāvali of Vallabhadeva. Edited by P. Peterson . . . and Durgāprasāda. *Bombay*, 1886. 8°.

No. XXXI of the Bombay Sanskrit Series.

Vasistha. श्रीवासिष्ठसंज्ञासूत्रम् Aphorisms on the Sacred Law of the Āryas, as taught in the School of Vasishtha. Edited, with critical notes, an anukramanikā, indices of words and Vedic mantras and an appendix of quotations as found in some Dharmanibandhas, by Rev. A. A. Führer. *Bombay*, 1883. 8°.

No. XXIII of the Bombay Sanskrit Series.

VEDAS.—Rigveda. Handbook to the study of the Rigveda [containing Sayana's Preface to his commentary on the Rigveda, with the commentary on the first three Hymns, and a translation into English of the Preface and the Seventh Mandala of the Rigveda, with Sayana's commentary] by P. Peterson. 2 pts. *Bombay*, 1890-92. 8°.

Nos. XLI and XLIII of the Bombay Sanskrit Series.

A Second Selection of Hymns from the Rigveda, edited with Sāyana's commentary and notes, by P. Peterson, etc. *Bombay*, 1898. 8°.

No. LVIII of the Bombay Sanskrit Series.

Vidyādhara. The Ekāvali of Vidyādhara with the commentary, Tarala, of Mallinatha and with a . . . notice of manuscripts, introduction and . . . notes by K. P. Trivedi. *Bombay*, 1903. 8°.

No. LXIII of the Bombay Sanskrit Series.

Presd. by the Director of Public Instruction, Bombay.

Watt (Sir George) Indian Art at Delhi, 1903. Being the Official Catalogue of the Delhi Exhibition, 1902-1903. *Calcutta*, 1903. 8°.

Presd. by the Government of India, Revenue and Agricultural Dept.

Weedon (William Stone) An Investigation of the Oxidation Products of Phenylthiosalicylic Acid. *Boston, Pa.* 1902. 8°.

Presd. by the Johns Hopkins University.

Whalley (Paul) Notes on Etymologies of Hindi Rural words. *London*, 1904. 8°.

Presd. by Messrs. W. Thacker and Co., London.

White (James) Altitudes of the Dominion of Canada, with a relief map of North America. *Ottawa*, 1901. 8°.

Presd. by the Geological Survey of Canada.

Whitehead (John B.) The Magnetic Effect of Electric Displacement. *Baltimore*, 1902. 8°.

Presd. by the Johns Hopkins University.

Wiener (S.) Bibliographie der Oster-Haggadah. 1500-1900. *St. Pétersbourg*, 1902. 4°.

Presd. by the Académie Impériale des Sciences, St. Pétersbourg.

Wilson (Richard H.) The Preposition A. The relation of its meanings studied in old French. Pt. I. Situation. *Baltimore*, 1902. 8°.

Presd. by the Johns Hopkins University

Woolley (Paul G.) Report on some Pulmonary Lesions produced by the Bacillus of Hemorrhagic septicæmia of Carabaos. *Manila*, 1904. 8°.

Bureau of Government Laboratories, Manila, No. 12.

Presd. by the Bureau of Government Laboratories, Manila.

Wright (George Frederick) Asiatic Russia . . . With maps and illustrations. 2 vols. *New York*, 1903. 8°.

Wyman (Levi Parker) The Purification of Tungstic Acid. *Philadelphia*, 1902. 8°.

Presd. by the University of Pennsylvania.

YALE UNIVERSITY. Yale University Prize Poem, 1898-1900, and 1903. *New Haven*, 1899. 8°.

Presd. by Yale University.

Yocum (Albert Duncan) An Inquiry into the Teaching of Additions and Subtraction. *Philadelphia*, 1901. 8°.

Presd. by the University of Pennsylvania.

ZARÁTUSHT NĀMA. Le Livre de Zoroastre (Zarátusht Nāma) de Zar-tusht-i Bahrām Ben Pajdū publié et traduit par Frédéric Rosenberg. *St. Pétersbourg*, 1904. 8°.

Presd. by the Translator.

LIBRARY.

The following new books have been added to the Library from July to August 1904. The continuations of all the serials and works in progress have been received.

Ahmad Hosain Khan, Munshi. Khiaban-i-Akhlaq, or poems on moral subjects and objects of nature. [In Urdū.] *Lahore*, 1899. 8°.

Presd. by the Author.

Barbé, Émile. Le Nabab René Madec. Histoire diplomatique des projets de la France sur le Bengale et le Pendjab, 1772-1808, etc. *Paris*, 1894. 8°.

Bezzi, M. Empididi indo-australiani raccolti dal signor L. Biró. [Budapest, 1904.] 8°.

Annales Musei Nationalis Hungarici, II, 1904.

Presd. by the Author.

BOARD OF SCIENTIFIC ADVICE FOR INDIA. Annual Report for the year 1902-1903. *Calcutta*, 1904. fol.

Presd. by the Govt. of India, Rev. and Agric. Dept.

Bretschneider, E. History of European Botanical Discoveries in China. 2 vols. *London*, 1898. 4°.

Brownell, Clarence Ludlow. The Heart of Japan: glimpses of life and nature . . . With . . . illustrations. *London*, 1904. 8°.

Charles-Roux, J. L'Isthme et le Canal de Suez. Historique—état actuel . . . Avec . . . planches, etc. 2 tom. *Paris*, 1901. 8°.

Cufino, L. Contributo alla flora briologica del Canadà. [Firenze, 1903.] 8°.

Estratto dal Bullettino della Società botanica italiana.

——— Una nuova specie di *Erica* dell' Africa australe. [Firenze, 1903.] 8°.

Estratto dal Bullettino della Società botanica italiana.

Presd. by the Author.

Oufino, L. Un piccolo contributo alla flora micologica della Provincia di Napoli. *Napoli*, 1904. 8°.

Presd. by the Author.

Cultru, Prosper. Dupleix ; ses plans politiques, sa disgrâce. Étude d'histoire coloniale. *Paris*, 1901. 8°.

CULTURHISTORISCHE Studien unter Rückbeziehung auf den Buddhismus. [By A. Bastian.] I, etc. *Berlin*, 1900, etc. 8°.

The FAUNA and Geography of the Maldive and Laccadive Archipelagoes. Being the account of the work carried on and of the collections made by an Expedition during the years 1899 and 1900. Edited by J. Stanley Gardiner. Vol. I, etc. *Cambridge*, 1902, etc. 4°.

FISHERIES OF NEW SOUTH WALES. Annual Report of Fisheries of New South Wales, 1902, etc. II. Fisheries Investigations and Fish culture. [*Sydney*, 1904, etc.] fol.

Presd. by the Dept. of Fisheries, New South Wales.

Foucher, Henri. Sur la frontière indo-afghane. Ouvrage contenant 45 gravures, etc. *Paris*, 1901. 8°.

Haan, J. van Breda de. Wortel-ziekte bij de peper op Java. *Batavia*, 1904. 8°.

Presd. by the Botanic Institute of Buitenzorg.

Herzog, Maximilian. A Fatal infection by a hitherto undescribed chromogenic bacterium : *Bacillus aureus foetidus*. *Manila*, 1904. 8°.
Bureau of Government Laboratories, Manila, No. 13.

Presd. by the Bureau of Government Laboratories, Manila.

HOLLAND.—*Commissie van advies voor 's Rijks Geschiedkundige Publicatien.* Overzicht van de door Bronnen—publicatie aan te vullen leemten der Nederlandsch Geschiedkennis. 's *Gravenhage*, 1904. 8°.

Presd. by the Commissie van advies voor 's Rijks Geschiedkundige Publicatien.

Joret, Charles. La Flore de l'Inde d'après les écrivains grecs. *Paris*, 1901. 8°.

Kay, S. P. An English-Mikir Vocabulary with Assamese equivalents, to which have been added a few Mikir phrases. *Shillong*, 1904. 8°.

Presd. by the Chief Commissioner of Assam.

Kielhorn, F. Bruchstücke indischer Schauspiele in Inschriften zu Ajmere .. Mit 4 Tafeln. *Berlin*, 1901. 4°.

Knapp, Georg Friedrich. Justus von Liebig nach dem Leben gezeichnet. *München*, 1903. 4°.
Presd. by the K. B. Akademie der Wissenschaften zu München.

Kudo, Tozaburo. The Ethics of Confucius. *Tokyo*, 1904. 8°.
Presd. by Yale University.

Laufer, Heinrich. Beiträge zur Kenntnis der tibetischen Medicin. 2 Teile. *Berlin, Leipzig*, 1900. 8°.

Lebedev, V.-T. Russes et Anglais en Asie centrale. Vers l' Inde. Esquisse militaire statistique et stratégique. Projet de campagne russe ... Traduit du russe par le capitaine ... Avec 4 croquis et 1 carte. *Paris*, 1900. 8°.

MARITIME TRADE OF BENGAL. Report for the official year 1903-04, etc. *Calcutta*, 1904, etc. fol.
Presd. by the Government of Bengal.

Montelius, Oscar. Der Orient und Europa. Einfluss der orientalischen Cultur auf Europa bis zur Mitte des letzten Jahrtausends v. Chr... Deutsche Uebersetzung von J. Mestorf. Heft I, etc. *Stockholm*, 1899, etc. 4°.

Müller, Right Hon. F. Max. Contributions to the Science of Mythology. 2 vols. *London*, 1897. 8°.

NORSKE GRADMAALINGS-KOMMISSION. Resultater af Vandstands-Observationer paa den Norske Kyst. Hefte VI, etc. *Kristiania*, 1904, etc. 4°.
Presd. by the Norske Gradmaalings Kommission.

Paniagua, André de. Les Temps héroïques. Étude préhistorique d'après les origines indo-européennes ... Préface par L. Roussélet. *Paris*, 1901. 8°.

Peacock, Frederick. The Law relating to Easements in British India. *Calcutta*, 1904. 8vo.
Tagore Law Lectures, 1899.
Presd. by the Calcutta University.

- Pleyte, C. M.** Die Buddhalegende in den Skulpturen des Tempels von Bôrô-Budur. [With illustrations.] *Amsterdam*, 1901. 4°.
- Indonesian Art. Selected specimens of ancient and modern art and handwork from the Dutch Indian Archipelago. [With plates.] *The Hague*, 1901. fol.
- Prentout, Henri.** L'Île de France sous Decaen, 1803-1810. Essai sur la politique coloniale du premier Empire et la rivalité de la France et de l'Angleterre dans les Indes orientales. *Paris*, 1901. 8°.
- Remy, Arthur F. J.** The Influence of India and Persia on the Poetry of Germany. *New York*. 1901. 8°.
Columbia University Germanic Studies, vol. I, No. 4.
- Roos-Keppel, Major G. and Qazi Abdul Ghani Khan.** A Manual of Pushtu. By Major G. Roos-Keppel...and Qazi Abdul Ghani Khan..., assisted by Sahibzada Abdul Qayum...Second impression. *London*, 1903. 8°.
- Sa'id Ibn Hasan of Alexandria.** The Kitâb masâlik an-Nazar. (Edited for the first time and translated with Introduction and notes by S. A. Weston.) [*Boston*, 1903.] 8°.
Reprinted from the Journal of the American Oriental Society.
Presd. by Yale University.
- Sandberg, Graham.** The Exploration of Tibet: its history and particulars from 1623 to 1904. *Calcutta*, 1904. 8°.
- Schrader, O.** Reallexikon der indogermanischen Altertumskunde. Grundzüge einer Kultur- und Völkergeschichte Alteuropas. *Strassburg*, 1901. 8°.
- Suau, Pierre.** L'Inde tamoule. 130 illustrations, etc. *Paris*, [1901.] 8°.
- SWEDISH ZOOLOGICAL EXPEDITION.** Results of the Swedish Zoological Expedition to Egypt and the White Nile, 1901. Under the direction of L. A. Jägerskiöld. Pt. I, etc. [*Upsala*, 1904, etc.] 8°.
Presd. by the Royal University of Upsala.
- Tagmacig.** Das Hochzeit-Ritual. [In Tibetan.] [*Ladakh*,] 1904. 8°.
Presd. by the Revd. A. H. Francke.
- Thieullen, A.** Société d'émulation d'Abbeville. Hommage à Boucher de Perthes. *Paris*, 1904. 4°.
Presd. by the Author.

Vriens, J. G. C. Over samengestelde en enkelvoudige meststoffen.
Batavia, 1904. 8°.

Presd. by the Botanic Institute of Buitenzorg.

Wakefield, W. The Happy Valley : Sketches of Kashmir and the
Kashmiris... With map and illustrations. *London, 1879. 8°.*

Webber, Thomas W. The Forests of Upper India and their inhabitants...
With maps. *London, 1902. 8°.*

White, James. Dictionary of altitudes in the Dominion of Canada.
With a relief map of Canada. *Ottawa, 1903. 8°.*

Presd. by the Dept. of the Interior, Ottawa.

Wood, Capt. H. Report on the Identification and Nomenclature of the
Himalayan Peaks as seen from Katmundu, Nepal... With preface
by Col. St. G. Gore, etc. [With maps.] *Calcutta, 1904. fol.*

Presd. by the Surveyor-General of India.

Zittel, Karl A. von. Ueber wissenschaftliche Wahrheit. *München,*
1902. 4°.

Presd. by the K. B. Akademie der Wissenschaften zu München.



LIBRARY.

The following new books have been added to the Library from September to December, 1904. The continuations of all the serials and works in progress have been received.

Al-Bekri and others. [Accounts of the Russians and the Slavs. Pt. II. Selected by A. Kunik.] [In Russian.] *St. Petersburg*, 1903. 8°

Presd. by Mr. A. Kunik.

Annandale, Nelson. Contributions to the Terrestrial Zoology of the Faroes. *Edinburgh*, 1904. 8°

From the Proceedings of the Royal Physical Society of Edinburgh.

———. The Peoples of the Malay Peninsula. [*Edinburgh*, 1904.] 8°

Reprinted from the Scottish Geographical Magazine.

———. Religion and Magic among the Malays of the Patani States. Part II. Ghosts and Ancestor Worship. [*London*, 1904.] 4°

Reprinted from Fasciculi Malayenses—Anthropology.

Presd. by the Author.

ARCHÆOLOGISCH ONDERZOEK OP JAVA EN MADURA. I. Beschrijving van de ruine bij de desa Toempang, genaamd Tjandi Djago, in de residentie Paseroean. Samengesteld naar de gegevens verstrekt door H. L. Leydie Melville en J. Knebel, onder leiding van Dr. J. L. A. Brandes. 's-Gravenhage, 1904. fol.

Presd. by Koninklijk Instituut voor de Taal, Land- en

Volkenkunde van Ned.—Indië.

Ashmarin, Nicolai. [Report on the Literary Activity of the Tartar Muhammadans of Kazan from 1880 to 1895.] [In Russian.] *Moscow*. 1901. 8°.

Presd. by the Author.

AVADĀNAĀṬĀKA. A Century of edifying tales belonging to the Hinayāna, Edited by Dr. J. S. Speyer. *St. Petersburg*, 1903. 8°.

Bibliotheca Buddhica, III.

*Presd. by the Académie Impériale des Sciences,
St. Petersburg.*

AZARA, Félix de. Geografía física y esférica de las Provincias del Paraguay, y Misiones Guaraníes. ... —manuscrito en la Biblioteca Nacional de Montevideo—Bibliografía prólogo y anotaciones por R. R. Schuller. *Montevideo, 1904.* 4°.

Anales del Museo Nacional de Montevideo.

Presd. by Museo Nacional de Montevideo.

Bagrat, Bishop of Tauromenia. [Georgian text of a manuscript of the 11th Century. Edited and translated by A. Khakhanoff.] [In Russian.] *Moscow 1904.* 8°.

*Presd. by the Lazarean Institute for Oriental Languages,
Moscow.*

Bhandarkar, S. R. Report of a tour through Central India, the Central Provinces and Rajputana, in connection with the search for Sanskrit Manuscripts. [*Bombay, 1904.*] fol.

Presd. by the Government of Bombay.

THE BODHAYANA-GRIHYA-SŪTRA. Edited by L. Srinivasacharya. *Mysore, 1904.* 8°.

Bibliotheca Sanskrita. No. 22.

Presd. by the Government Oriental Library, Mysore.

Bogoraz, V. G. [Materials for the Study of the Language and Folklore of the Chukots. Part I. Text and Translation.] [In Russian.] *St. Petersburg, 1900,* 4°.

*Presd. by the Académie Impériale des Sciences,
St. Petersburg.*

BRITISH MUSEUM. [Natural History.] The History of the Collections contained in the Natural History Departments of the British Museum. Vol. I, etc. *London, 1904, etc.* 8°.

_____ . An Introduction to the Study of Meteorites, etc. [*London,*] 1904. 8°.

Presd. by the British Museum.

Buffum, Douglas Labaree. *Le Roman de la Violette. A study of the manuscripts and the original dialect. A dissertation, etc. Baltimore, 1904. 8°.*

Carver, Benjamin F. *A Study of new Semipermeable Membranes prepared by the Electrolytic Method. Dissertation, etc., Easton, Pa. 1903. 8°.*

Presd. by the Johns Hopkins University.

Chavannes, Edouard. *Documents sur les Tou-Kiue (Turcs) occidentaux. St. Petersburg, 1903. 4°.*

*Presd. by the Académie Impériale des Sciences,
St. Petersburg.*

Child, C. G. *Palatal Diphthongization of Stem Vowels in the old English Dialects. A dissertation, etc., Philadelphia, 1903. 8°.*

*Reprinted from the Publications of the University
of Pennsylvania, Series in Philology and Literature.*

Coker, W. C. *On the Gametophytes and Embryo of Taxodium. A dissertation, etc. [Chicago, 1904.] 8°.*

Reprinted from the Botanical Gazette.

Presd. by the Johns Hopkins University.

COLLECTION OF 300 BUDDHIST PICTURES. [Collection of 300 Buddhist Pictures. Edited with notes by S. F. Oldenburg. Part I. Pictures and Table of Contents.] [In Russian.] *St. Petersburg, 1903. 8°.*
Bibliotheca Buddhica. V.

*Presd. by the Académie Impériale des Sciences,
St. Petersburg.*

Collinson, General. *General Sir Henry Drury Harness, K.C.B., Colonel Commandant Royal Engineers...Edited by General Webber. London, 1903. 8°.*

*Presd. by the Committee of the Royal Engineers
Institute, Okatham.*

Converse, Henry A. On a System of Hypocycloids of class three inscribed to a given 3-line and some curves connected with it. A dissertation, etc. *Salem*, 1904. 4°.

Reprinted from the Annals of Mathematics.

Coony, J. P. A Study of some new Semipermeable Membranes. Dissertation, etc. *Baltimore*, 1903. 8°.

Presd. by the Johns Hopkins University.

THE FOREST MANUAL, etc. *Manila*, 1904. 8°.

Presd. by the Bureau of Forestry, Manila.

Fraser, Williams Ritchie. Metaphors in Aeschines the Orator. A dissertation, etc. *Baltimore*, 1897. 8°.

Getman, Frederick Hutton. A Study of the Molecular Lowering of the freezing points of concentrated solutions of certain Electrolytes. Dissertation, etc. *Lancaster, Pa.*, 1904. 8°.

Presd. by the Johns Hopkins University.

Grierson, George Abraham. The Languages of India: being a reprint, of the chapter on Languages...to the report on the Census of India, 1901, together with the Census Statistics of Languages. *Calcutta*, 1903. fol.

Presd. by the Author.

Griswold, Rev. H. D. The Chet Rami Sect. [*Cawnpore*, 1904.] 8°.

Presd. by the Author.

GUATEMALA.—Administracion Estrada Cabrera. Reseña de los progresos alcanzados en los ramos de adjudicacion de Terrenos, ferrocarriles, carreteras, puentes, comunicaciones por correo, telégrafo y teléfono y produccion agricola. *Guatemala*, 1904. 8°.

Presd. by Direccion General de Estadistica, Guatemala.

Haan, Fouger de. An Outline of the History of the Novela Picaresca in Spain. Dissertation, etc. *New York*, 1903. 8°.

Presd. by the Johns Hopkins University.

Haeckel, Ernst. Die Lebenswunder. Gemeinverständliche Studien über biologische Philosophie. Ergänzungsband zu dem Buche über die Welträthsel. *Stuttgart*, 1904. 8°.

Presd. by the Author.

Harsha, Sri. Sri Harsha's Khandanakhandakhâdya, with the commentary Khandanaphakkikâvibhajana—Vidyasagari—of Anandpurna, with extracts, from the commentary of Chitsukha, Sankara Misra and Raghunatha. Edited by Ganganath Jha. Fasc. I, etc. *Benares*, 1904, etc. 8°.

Part of the Chowkhamba Sanskrit Series.

Henry, Victor. Précis de Grammaire Pâlie, accompagné d'un choix de textes gradués. *Paris*, 1904. 8°.

Part of the Bibliothèque de l'École Française d'extrême-Orient.

Presd. by the École Française d'extrême-Orient.

Hullihen, Walter. Antequam and Priusquam with special reference to the historical devolpment of their subjunctive usage. A dissertation, etc. *Baltimore*, 1903. 8°.

Hun, John Gale. On certain invariants of two Triangles...Dissertation, etc. [*Lancaster*, Pa.], 1904. 4°.

Reprinted from the Transactions of the American Mathematical Society.

Presd. by the Johns Hopkins University.

HYDERABAD.—*H. H. The Nizam's Government State Library.*

فہرست کت عربی وغیرہ [Catalogue of Arabic, Persian and Urdu books in H. H. The Nizam's Government State Library, Hyderabad.] *Hyderabad*, 1900. 8°.

Presd. by the Superintendent of H. H. the Nizam's

Government State Library, Hyderabad.

IMPERIAL LIBRARY. Catalogue of the Imperial Library, etc. Part I, etc. *Calcutta*, 1904, etc. 4°.

Presd. by the Imperial Library.

Iokhelson, W. I. [Materials for the study of the Language and Folklore of the Yukagirs. Part I. Test and Translation.] [In Russian.] *St. Petersburg*, 1900. 4°.

Presd. by the Académie Impériale des Sciences,

St. Petersburg.

James, G. O. Some differential Equations connected with Hypersurfaces.
A dissertation, etc. *Baltimore*, 1903. 4°.

Presd. by the Johns Hopkins University.

Khakhanof, A. [Balavar and Iodasaph. Georgian text from a Manuscript
of the 12th century. Translation and Introduction.] [In Russian.]
Moscow, 1902. 8°.

Presd. by the Author.

KIEW.—*Natural History Society.* [Journal of the Kiew Natural History
Society. Vols. XVI—XVIII.] [In Russian.] *Kiew*, 1899—1904.
8°.

Presd. by the Kiew Natural History Society.

King, L. White. Collection L. White King. [Coins.] Première partie
September, 1904. [*Amsterdam*, 1904.] 8°.

Presd. by Herr J. Schulman.

Koningsberger, J. C. Ziekten in Klapperaanplantingen. *Batavia*,
1904. 8°.

Presd. by the Botanic Institute of Buitenzorg.

Krimski, A. [Sources for the History of Muhammad and the Literature
dealing with him.] [In Russian.] *Moscow*, 1902. 8°.

Presd. by the Author.

LA FOLIE TRISTRAN. An Anglo-Norman Poem. Edited by A. E. Curdy...
Part I. A Dissertation, etc. *Baltimore*, 1903. 8°.

Presd. by the Johns Hopkins University.

Lemm, Oscar von. Der Alexanderroman bei den Kopten. Ein Beitrag
zur Geschichte der Alexandersage im Orient....Text. Übersetzung.
Anmerkungen. Mit...Tafeln. *St. Petersburg*, 1903. 4°.

*Presd. by the Académie Impériale des Sciences,
St. Petersburg.*

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

Levasseur, E. The American Workman...An American translation...
 Edited by Theodore Marburg. *Baltimore*, 1900. 8°.

Presd. by the Johns Hopkins University.

Levi, Sylvain. On some terms employed in the Inscriptions of the
 Kshatrapas...translated...from the "Journal Asiatique" under the
 direction of J. Burgess. *Bombay*, 1904. 4°.

Reprinted from the Indian Antiquary.

Presd. by Dr. J. Burgess.

Mahavarati, Swami Dharmananda. মুক্ত মাদ্ধব [Mukta Madhav.] [In
 Bengali.] *Calcutta*, 1904. 8°.

Presd. by the Author.

Mallika, Durlabha. গোবিন্দচন্দ্র গীতা [Govinda Chandra Gita...Published
 with notes by Siva Chandra Sila.] [In Bengali.] *Calcutta*, [1901.] 8°.

Presd. by Babu Siva Chandra Sila.

Mayer, Alfred Goldsborough. Medusae of the Bahamas. *Brooklyn*,
 1904. 4°.

*Memoirs of Natural Sciences of the Museum of Brooklyn Institute of
 Arts and Sciences. Vol. I No. 1.*

Presd. by the Museum.

Meushaw, L. G. The Red Book...The Era of Greed and Craft. *Brawn
 vs. Brain, etc.* [New York,] 1904. 8°.

Presd. by the Author.

Merrill, Elmer D. New or Noteworthy Philippine Plants, II. *Manila*,
 1904. 8°.

*One of the Publications of the Bureau of Government Laboratories,
 Manila.*

Presd. by the Bureau.

M'Lennan, John Ferguson. Studies in Ancient History. The Second
 series...Edited by his widow and Arthur Platt. *London*,
 1896. 8°.

Presd. by Mr. H. M. Percival.

Montgomery, Thos. H. The Adult Organisation of *Paragordius varius* (Leidy)... With... plates. *Jena*, 1903. 8°.

Contributions from the University of Pennsylvania.

Presd. by the University.

Moore, J. H. The Fluorescence and Absorption spectra of Sodium Vapor. Dissertation, etc. *Baltimore*, 1903. 8°

Presd. by the Johns Hopkins University.

MĀLAMADHYAMAKAKĀRIKĀS—Mādhyanikasūtras—de Nāgarjuna avec la Prasannapadā. Commentaire de Candrakīrti. Publié par Louis de la Vallée Poussin. *St. Petersburg*, 1903. 8°.

Bibliotheca Buddhica. IV.

Presd. by the Académie Impériale des Sciences,

St. Petersburg.

Mulford, Roland J. The Political Theories of Alexander Hamilton. A dissertation, etc., [*Baltimore*, 1903.] 8°.

Presd. by the Johns Hopkins University.

Müller, V. [Digorskiya Skazaniya. Tales in the Digor Dialect—a branch of Ossetian—with translation and notes.] [In Russian.] *Moscow*, 1902. 8°.

———. [Ossetica.] [In Russian.] *Moscow*, 1904. 8°.

———. [Outlines of the Morphology of the Ebrao-Tat dialect.] [In Russian.] *Moscow*, 1901. 8°.

Presd. by the Lazarean Institute for Oriental Languages, Moscow.

MUSÉE GUIMET. Le Jubilé du Musée Guimet. Vingt-cinquième anniversaire de sa fondation, 1879-1904. *Paris*, 1904.

Presd. by the Musée Guimet.

Musgrave, W. E. and Olegg, Moses T. Part I. Amebas: their cultivation and etiologic significance. Part II. Treatment of Intestina. Amebiasis—Amebic Dysentery—in the Tropics. By W. E. Musgrave. *Manila*, 1904. 8°.

One of the Publications of the Bureau of Government Laboratories, Manila.

Presd. by the Bureau.

Faint, illegible text, possibly bleed-through from the reverse side of the page.

Mushketof, I. W. [Materials for the study of Earthquakes in Russia, with a map and drawings, No. 2.] [In Russian.] *St. Petersburg*, 1899. 8°.

Proceedings of the Russian Imperial Geographical Society.

Presd. by the Society.

Narhari, Sri. Bodhsār, a treatise on Vedānta...With a commentary by...Pandit Divākar. Edited by Swami Dayananda, Fasc. I, etc. *Benares*, 1904, etc. 8°.

Part of the Benares Sanskrit Series.

Nevill, H. R. District Gazetteers of the United Provinces of Agra and Oudh. Vol. III. Muzaffarnagar: Vol. IV. Meerut: Vol. V. Budaunshahr: Vol. XXXVII. Lucknow: Vol. XXXVIII. Unao: Vol. XLV. Bahraich: Vol. XLVI. Sultanpur. *Allahabad*, 1903-04. 8°.

Presd. by the Government of India, Home Department.

ORKHON EXPEDITION. [Collection of Proceedings of the Orkhon Expedition. III. Chinese Inscription on the Orkhon Monuments. By V. P. Vasiliet; IV. Ancient Turkish Monuments in Kosho-Tsaidam. By V. V. Radlof and P. M. Melioranski; V. Diary of a Journey in the Orkhon and Southern Khangai Districts in the year 1891. By N. Yadriutsef.] [In Russian.] *St. Petersburg*, 1897-1901. 4°.

Presd. by the Académie Impériale des Sciences, St. Petersburg.

Pantusof, N. N. [Antiquities of Central Asia.] [In Russian.] *Kazan*, 1902. 8°.

———. [Kirghiz Proverbs.] [In Russian.] *Kazan*, 1899. 8°.

———. [Materials for the Study of the Sart dialect of Turkish.] [In Russian.] *Kazan*, 1899. 8°.

———. [Materials for the Study of the Toraochei dialect of the Ili District. Parts 3-5.] [In Russian.] *Kazans*, 1901. 8°.

———, and **Pozdniyéef, A.** [Tamgali Tas. A frontier story on the left bank of the river Ili.] [In Russian.] () () 8°.

Presd. by the Author.

Parsons, Louis Alexander. The Spectrum of Hydrogen. A dissertation, etc. *Baltimore*, 1902. 8°.

Presd. by the Johns Hopkins University.

PATAÑJALA YOGA SŪTRĀNI पतञ्जल योगसूत्राणि [Patañjala yoga Sūtrāṇi with commentary named Rāja Martanḍa, by Bhoja Deva. Edited by Hari Nārāyan Āpate.] *Poona*, 1904. 8°.

PHILIPPINE COMMISSION. Report of the Forestry Bureau of the Philippine Islands for 1903. [*Manila*, 1903.] 8°.

Presd. by the Philippine Exposition Board, Manila.

Phillips, Rev. E. G. Outline Grammar of the Garo Language. *Shillong*, 1904. 8°.

Presd. by the Government of Assam.

Rabinovitch, Israel. Euclid. The Foundations of the Euclidian Geometry as viewed from the standpoint of Kinematics. Dissertation, etc. *New York*, 1903. 8°.

Richardson, George Burr. The Upper Red Beds of the Black Hills. Dissertation, etc. [*Chicago*,] 1903. 8°.

Reprinted from the Journal of Geology.

Rodeffer, John David. The Inflection of the English Present Plural Indicative with special reference to the Northern Dialect. A dissertation, etc. *Baltimore*, 1903. 8°.

Presd. by the Johns Hopkins University,

Schrenck, L. [Concerning the natives of the Amur District.] [In Russian.] *St. Petersburg*, 1903. 4°.

Presd. by the Author.

Seidell, Atherton. The Precipitation of Zinc by Manganese Peroxide, with especial reference to the Volhard method of determining Manganese. A dissertation, etc. *Easton, Pa.*, 1904. 8°.

Shipley, George. The Genitive Case in Anglo-Saxon Poetry. A dissertation, etc., *Baltimore*, 1903. 8°.

Smith, Arthur W. A Determination of the heat of Fusion of Ice. Dissertation, etc. *Lancaster, Pa.*, 1903. 8°.

Reprinted from the Physical Review.

Presd. by the Johns Hopkins University.

ST. PETERSBURG.—*Imperial Public Library*. [Report for the year 1898.]
[In Russian.] *St. Petersburg*, 1903. 8°.

Presd. by the Library.

SWEDEN: its people and its Industry. Historical and Statistical Hand-
book...Edited by Gustav Sundbärg. *Stockholm*, 1904. 8°.

Presd. by the Royal Swedish Central Bureau of Statistics,
Stockholm.

TRIADON. Das Triadon, ein sahidisches Gedicht. Mit arabischer Überset-
zung von O. von Lemm. *St. Petersburg*, 1903, etc. 8°.

Presd. by the Académie Impériale des Sciences, St. Petersburg.

TURKISH NATIONAL SONGS. [Turkish Natural Songs. Musical text with
translation and notes. By B. Müller.] [In Russian.] *Moscow*,
1903. 8°.

Presd. by the Lazarean Institute for Oriental Languages, Moscow.

Varma, Kumar Cheda Singh. Kshatriyas and would-be Kshatriyas, etc.
Allahabad, 1904. 8°.

Presd. by the Author.

Waldheim, A. A. Fischer von. [Istoricheske Ocherk. Historical sketch
of the St. Petersburg Imperial Botanical Gardens from 1873 to 1898.]
[In Russian.] *St. Petersburg*, 1899. 8°.

Presd. by the Imperial Botanical Gardens, St. Petersburg.

Westberg, Friederich. [Commentary on Ibrahim ibn Ya' Aúb's ac-
count of the Slavs.] [In Russian.] *St. Petersburg*, 1903. 8°.

Presd. by the Author.

WÜRTEMBERG—*Verein für vaterländische Naturkunde in Württem-
berg*. Verzeichnis der mineralogischen, geologischen, urgeschichtli-
chen and hydrologischen Literatur von Württemberg, Hohenzollern
und den angrenzenden Gebieten. III. Nachträge zur Literatur von
1902 and die Literatur von 1903, zusammengestellt von Dr. E. Schütze.
Stuttgart, 1904. 8°.

Presd. by the Verein für Vaterlandische Naturkunde in Württemberg.

YALE UNIVERSITY. Catalogue of the Officers and Graduates of Yale University. 1701-1904. *New Haven*, 1905. 8°.

Presd. by the University.

Yamaguchi, Kisaburo. An Investigation of the Hydrated Oxides of Manganese derived from electrolytically prepared Permanganic Acid. A dissertation, etc. *Baltimore*, 1902. 8°.

Presd. by the Johns Hopkins University.



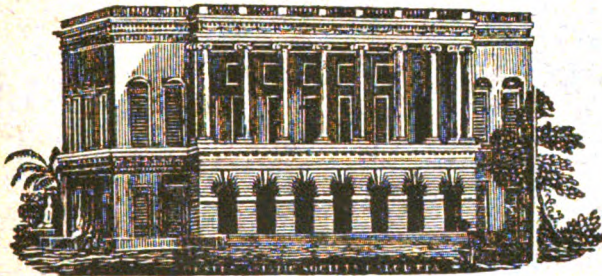
12 19 04

1658

PROCEEDINGS
OF THE
ASIATIC SOCIETY OF BENGAL.

EDITED BY
THE HONORARY SECRETARY.

Nos. I & II. JANUARY & FEBRUARY, 1903.



"The bounds of its investigation will be the geographical limits of Asia: and within these limits its inquiries will be extended to whatever is performed by man or produced by nature."

"It will flourish, if Naturalists, Chemists, Antiquaries, Philologists, and men of Science in different parts of Asia, will commit their observations to writing, and send them to the Asiatic Society at Calcutta. It will languish, if such communications shall be long intermitted; and it will die away, if they shall entirely cease."—SIR WILLIAM JONES.

Annual Subscription **four rupees**. Price per number **eight annas**. Postage in India (additional) **one anna**. Price in England **one shilling**.

The publications of the Society consist — of the *Proceedings*, one number of which is issued, as soon as possible, after every monthly meeting, and of the *Journal*, the annual volume of which is divided into three Parts: Part I being devoted to History, Philology, &c., Part II to Natural Science, and Part III to Anthropology, &c.; each part is separately paged and provided with a special index, and one number of each part is published quarterly. Single numbers for sale at the rates given on the last page of cover.

* * * It is requested that communications for the "Journal" or "Proceedings" may be sent under cover to the Honorary Secretaries, Asiatic Soc., to whom all orders for these works are to be addressed in India; or, to the Society's Agents, Messrs. Luzac and Co., 46, Great Russell Street, London, W. C., and Mr. Otto Harrassowitz, Leipzig, Germany.

N.B.—In order to ensure papers being read at any Monthly Meeting of the Society, they should be in the hands of the Secretaries at least a week before the Meeting.

CALCUTTA:

PRINTED AT THE BAPTIST MISSION PRESS, AND PUBLISHED BY THE
ASIATIC SOCIETY, 57, PARK STREET.

1903.

Issued May 25th, 1903.

CONTENTS.

	Page.
Monthly General Meeting	51
Presentations	ib.
Election of Members	ib.
Withdrawal of a Member	ib.
Death of Honorary Members	ib.
Obituary notices of Professor E. B. Cowell and Sir George Stokes	ib.
Announcement by the Chairman	55
Election of various Committees	ib.
Mr. I. H. Burkill—Exhibition of a dagger	56
Papers:—	
1. <i>The Sarāka caste of India identified with the Sērikē people of Central Asia.</i> —By SATIS CHANDRA VIDYĀBHÜṢAṆA, M.A., M.R.A.S. (Abstract)	ib.
2. <i>On the origin of the Nikmard fair in Dinājpur.</i> —By MAULAVI ĀBDUL WALI (Abstract)	59
3. <i>On the history of the Hutwa Raj.</i> —By GIRINDRA NATH DUTT, B.A. (Abstract)	ib.

LIST OF BOOKS FOR SALE

AT THE LIBRARY OF THE
ASIATIC SOCIETY OF BENGAL,
No. 57, PARK STREET, CALCUTTA,

AND OBTAINABLE FROM
THE SOCIETY'S AGENTS, MESSRS. LUZAC AND CO.,
46, GREAT RUSSELL STREET, LONDON, W. C., AND
MR. OTTO HARRASSOWITZ, BOOKSELLER, LEIPZIG, GERMANY.

*Complete copies of those works marked with an asterisk * cannot be supplied—some of the Fasciculi being out of stock.*

BIBLIOTHECA INDICA.

Sanskrit Series.

Advaita Brahma Siddhi, (Text) Fasc. 1-4 @ /6/ each	Rs. 1	8
Advaita Chinta Kaistabh, Fasc. 1	0	6
*Agni Purāna, (Text) Fasc. 4-14 @ /6/ each	4	2
Aitarēya Brāhmaṇa Vol. I, Fasc. 1-5 and Vol. II, Fasc. 1-5, Vol. III, Fasc. 1-5, Vol. IV, Fasc. 1-5 @ /6/	7	8
Aṇu Bhāṣyam, (Text) Fasc. 1-5 @ /6/ each	1	14
Aphorisms of Sāṅdilya, (English) Fasc. 1	0	12
Aṣṭasāhasrikā Prajñāpāramitā, (Text) Fasc. 1-6 @ /6/ each	2	4
Açvavaidyaka, (Text) Fasc. 1-5 @ /6/ each	1	14
Avadāna Kalpalatā, (Sans. & Tibetan) Vol. I, Fasc. 1-5; Vol. II, Fasc. 1-5 @ 1/ each	10	0
*Bhāmatī, (Text) Fasc. 4-8 @ /6/ each	1	14
Bhāṭṭa Dipikā Vol. I, Fasc. 1-3	1	2
Bodhicaryavatam of Cantidevi, Fasc. 1	0	6
Bṛhaddēvatā, (Text) Fasc. 1-4 @ /6/ each	1	8
Bṛhaddharma Purāna, (Text) Fasc. 1-6 @ /6/ each	2	4
Catalogue of Sanskrit Books and Manuscripts Fasc. 1-3 @ 2/ each	6	0
Çatapatha Brāhmaṇa, Fasc. 1-5	1	14
*Çatūrvarga Chintāmaṇi, (Text) Vols. II, 1-25; III, Part I, Fasc. 1-18, Part II, Fasc. 1-10 @ /6/ each	19	14
Çatasūhaseika Prajñāparimita Fasc. 1-2 (Text) @ /6/ each	0	12
Çlokavartika, (English) Fasc. 1-2 @ /12/ each	1	8
*Çranta Sūtra of Āpastamba, (Text) Fasc. 4-16 @ /6/ each	4	14
Ditto Çāṅkhāyana, (Text) Vol. I, Fasc. 1-7; Vol. II, Fasc. 1-4, Vol. III, Fasc. 1-4 @ /6/ each	5	10
Çrī Bhāṣyam, (Text) Fasc. 1-3 @ /6/ each	1	2
Gadadhara Paddhati Kālasāra Vol. I, Fasc. 1-3	1	2
Kāla Mēdhava (Text) Fasc. 1-4 @ /6/ each	1	8

(Continued on third page of cover.)

Kāla Viveka, Fasc. 1-4	Rs. 1	8	
Kātantra, (Text) Fasc. 1-6 @ /12/ each ... ..	...	4	8
Kathā Sarit Sāgara, (English) Fasc. 1-14 @ /12/ each ... ..	...	10	8
Kūrma Purāna, (Text) Fasc. 1-9 @ /6/ each ... ..	...	3	6
*Lalitā-Vistara, (English) Fasc. 1-3 @ /12/ each ... ..	...	2	4
Madana Pārijāta, (Text) Fasc. 1-11 @ /6/ each ... ..	...	4	2
Mahā-bhāṣya-pradīpōdyōta, (Text) 1-9 Vol. I Fasc. 9, Fasc. 1-8, Vol. II, Fasc. 1-3 @ /6/ each ... ..	...	4	8
Manufikā Saṅgraha, (Text) Fasc. 1-3 @ /6/ each ... ..	...	1	2
Mārkandēya Purāna, (English) Fasc. 1-6 @ /12/ each ... ..	...	4	8
*Mīmāṃsā Darṣana, (Text) Fasc. 7-19 @ /6/ each ... ..	...	4	14
Nārada Smṛti, (Text) Fasc. 1-3 @ /6/ ... ..	...	1	2
Nyāyavārtika, (Text) Fasc. 1-4 @ /6/ ... ..	...	1	8
*Nirukta, (Text) Vol. III, Fasc. 1-6; Vol. IV, Fasc. 1-8 @ /6/ each ... ..	...	5	4
Nityacam Paddhati Fasc. 1-4 (Text) @ /6/ each ... ..	...	1	8
Nyayabindntikā, (Text) ... ..	...	0	10
Nyāya Kṛmṃāñjali Prakaraṇa, (Text) Vol. I, Fasc. 1-6; Vol. II, Fasc. 1-3 @ /6/ each ... ..	...	3	6
Padumawati, Fasc. 1-3 @ 2/ ... ..	...	6	0
Pariṣṭa Parvan, (Text) Fasc. 1-5 @ /6/ each ... ..	...	1	14
Prākṛta-Paṅgalam, Fasc. 1-6 @ /6/ each ... ..	...	2	4
Prithvirāj Rāsa, (Text) Part II, Fasc. 1-5 @ /6/ each ... ..	...	1	14
Ditto (English) Part II, Fasc. 1 ... ..	...	0	12
Prākṛta Lakṣaṇam, (Text) Fasc. 1 ... ..	...	1	8
Parācāra Smṛti, (Text) Vol. I, Fasc. 1-8; Vol. II, Fasc. 1-6; Vol. III, Fasc. 1-6 @ /6/ each ... ..	...	7	8
Parācāra, Institutes of (English) ... ..	...	0	12
Prabandhacintāmaṇi (English) Fasc. 1-2 @ /12/ each ... ..	...	1	8
*Sāma Vēda Saṃhitā, (Text) Vols. I, Fasc. 5-10; II, 1-6; III, 1-7; IV, 1-6; V, 1-8, @ /6/ each Fasc. ... ..	...	12	6
Sāṅkhya Sūtra Vytti, (Text) Fasc. 1-4 @ /6/ each ... ..	...	1	8
Ditto (English) Fasc. 1-3 @ /12/ each ... ..	...	2	4
Suṣṛuta Saṃhitā, (English) Fasc. 1 @ /12/ ... ..	...	0	12
*Taittereya Saṃhitā, (Text) Fasc. 14-45 @ /6/ each ... ..	...	12	0
Tāṇḍya Brāhmaṇa, (Text) Fasc. 1-19 @ /6/ each ... ..	...	7	2
Tatva Cintāmaṇi, (Text) Vol. I, Fasc. 1-9; Vol. II, Fasc. 1-10; Vol. III, Fasc. 1-2; Vol. IV, Fasc. 1; Vol. V, Fasc. 1-5, Part IV; Vol. II, Fasc. 1-12 @ /6/ each ... ..	...	14	10
Trikāṇḍa-Māṇḍanam, (Text) Fasc. 1-2 @ /6/ ... ..	...	0	12
Tul'si Sat'sai, (Text) Fasc. 1-5 @ /6/ each ... ..	...	1	14
Upamita-bhava-prapañca-kathā (Text) Fasc. 1-4 @ /6/ each ... ..	...	1	8
Uvāsagadasāo, (Text and English) Fasc. 1-6 @ /12/ ... ..	...	4	8
Varāha Purāna, (Text) Fasc. 1-14 @ /6/ each ... ..	...	5	4
Varṣa Kṛya Kamndi, Fasc. 1-5 @ /6/ ... ..	...	1	14
*Vāyu Purāna, (Text) Vol. I, Fasc. 2-6; Vol. II, Fasc. 1-7 @ /6/ each ... ..	...	4	8
Viṣṇu Smṛti, (Text) Fasc. 1-2 @ /6/ each ... ..	...	0	12
Vivādaratnākara, (Text) Fasc. 1-7 @ /6/ each ... ..	...	2	10
Vṛhannāradiya Purāna, (Text) Fasc. 1-6 @ /6/ ... ..	...	2	4
Vṛhat Svayambhū Purāna, Fasc. 1-6 ... ..	...	2	4

Tibetan Series.

Pag-Sam Thi S'iā, Fasc. 1-4 @ 1/ each ... ..	...	4	0
Sher-Phyin, Vol. I, Fasc. 1-5; Vol. II, Fasc. 1-3; Vol. III, Fasc. 1-5, @ 1/ each ... ..	...	13	0
Rtogs brjod dpag khkri S'iā (Tib. & Sans.) Vol. I, Fasc. 1-5; Vol. II, Fasc. 1-5 @ 1/ each ... ..	...	10	0

Arabic and Persian Series.

Ālamgīrnāmah, with Index, (Text) Fasc. 1-13 @ /6/ each ... ..	...	4	14
Al-Muqaddasi (English) Vol. I, Fasc. 1-3 @ /12/ ... ..	...	2	4
Āin-i-Akbari, (Text) Fasc. 1-22 @ 1/ each ... ..	...	22	0
Ditto (English) Vol. I, Fasc. 1-7, Vol. II, Fasc. 1-5; Vol. III Fasc. 1-5 @ 1/12/ each ... ..	...	29	12
Akbarnāmah, with Index, (Text) Fasc. 1-37 @ 1/ each ... ..	...	37	0
Ditto English Fasc. 1-6 @ 1/ each ... ..	...	6	0
Arabic Bibliography, by Dr. A. Sprenger ... ..	...	0	6
Bādshāhnāmah, with Index, (Text) Fasc. 1-19 @ /6/ each ... ..	...	7	2
Catalogue of Arabic Books and Manuscripts ... ..	...	1	0
Catalogue of the Persian Books and Manuscripts in the Library of the Asiatic Society of Bengal. Fasc. 1-3 @ 1/ each ... ..	...	3	0
Dictionary of Arabic Technical Terms, and Appendix, Fasc. 1-21 @ 1/ each ... ..	...	21	0
Farhang-i-Rashidī, (Text) Fasc. 1-14 @ 1/ each ... ..	...	14	0
Fihriṣht-i-Ṭūsī, or, Ṭūsī's list of Shy'ah Books, (Text) Fasc. 1-4 @ /12/ each ... ..	...	2	0
Futūḥ-ush-Shām of Waqidi, (Text) Fasc. 1-9 @ /6/ each ... ..	...	2	6
Ditto of Āzādī, (Text) Fasc. 1-4 @ /6/ each ... ..	...	2	6

Haft Asmān, History of the Persian Masnawī, (Text) Fasc. 1	Rs.	0	12
History of the Caliphs, (English) Fasc. 1-6 @ /12/ each	...	4	8
Iqbāl-nāmah-i-Jahāngīrī, (Text) Fasc. 1-3 @ /6/ each	...	1	2
Iṣābah, with Supplement, (Text) 51 Fasc. @ /12/ each	...	28	4
Maāṣir-ul-Umarā, Vol. I, Fasc. 1-9, Vol. II, Fasc. 1-9; Vol. III, 1-10; Index to Vol. I, Fasc. 10-11; Index to Vol. III, Fasc. 11-12; Index to Vol. II, Fasc. 10-12 @ /6/ each	...	13	2
Maḡhāzi of Wāqidi, (Text) Fasc. 1-5 @ /6/ each	...	1	14
Muntakhabu-t-Tawārikh, (Text) Fasc. 1-15 @ /6/ each	...	5	10
Ditto (English) Vol. I, Fasc. 1-7; Vol. II, Fasc. 1-5 and 3 Indexes; Vol. III, Fasc. 1. @ /12/ each	...	12	0
Muntakhabu-l-Lubāb, (Text) Fasc. 1-19 @ /6/ each	...	7	2
Ma'āsir-i-'Ālamgīrī, (Text) Fasc. 1-6 @ /6/ each	...	2	4
Nukhbatu-l-Fikr, (Text) Fasc. 1	...	0	6
Nizāmi's Khiradnāmah-i-Iskandari, (Text) Fasc. 1-2 @ /12/ each	...	1	8
Riyāzu-s-Salātin, (Text) Fasc. 1-5 @ /6/ each	...	1	14
Tabaqāt-i-Nāṣiri, (Text) Fasc. 1-5 @ /6/ each	...	1	14
Ditto (English) Fasc. 1-14 @ /12/ each	...	10	8
Ditto Index	...	1	0
Tārikh-i-Firūz Shāhi of Ziyān-d-dīn Barni, (Text) Fasc. 1-7 @ /6/ each	2	10	
Tārikh-i-Firūzshāhi, of Shams-i-Sirāj Aif, (Text) Fasc. 1-6 @ /6/ each	2	4	
Ten Ancient Arabic Poems, Fasc. 1-2 @ 1/8/ each	...	3	0
Wis o Rāmīn, (Text) Fasc. 1-5 @ /6/ each	...	1	14
Zafarnāmah, Vol. I, Fasc. 1-9; Vol. II, Fasc. 1-8 @ /6/ each	...	6	6
Zuzk-i-Jahāngīrī, (English) Fasc. 1...	...	0	12

ASIATIC SOCIETY'S PUBLICATIONS.

1. ASIATIC RESEARCHES. Vol. VII, Vols. XI and XVII, and Vols. XIX and XX @ 10/ each ... 50 0
2. PROCEEDINGS of the Asiatic Society from 1865 to 1869 (incl.) @ /6/ per No.; and from 1870 to date @ /8/ per No.
3. JOURNAL of the Asiatic Society for 1843 (12), 1844 (12), 1845 (12), 1846 (5), 1847 (12), 1848 (12), 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 (11), 1891 (7), 1892 (8), 1893 (11), 1894 (8), 1895 (7), 1896 (8), 1897 (8), 1898 (8), 1899 (8), 1900 (7), 1901 (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.
4. Centenary Review of the Researches of the Society from 1784-1883 ... 3 0
A sketch of the Turki Language as spoken in Eastern Turkistan, by R. B. Shaw (Extra No., J.A.S.B., 1878) ... 4 0
Theobald's Catalogue of Reptiles in the Museum of the Asiatic Society (Extra No., J.A.S.B., 1868) ... 2 0
Catalogue of Mammals and Birds of Burmah, by E. Blyth (Extra No., J.A.S.B., 1875) ... 4 0
Introduction to the Maithili Language of North Bihār, by G. A. Grierson, Part II, Chrestomathy and Vocabulary (Extra No., J.A.S.B., 1882) ... 4 0
5. Anis-ul-Musharraḥīn ... 3 0
6. Catalogue of Fossil Vertebrata ... 3 0
7. Catalogue of the Library of the Asiatic Society, Bengal, by W. A. Bion ... 3 8
8. Ināyah, a Commentary on the Hidāyah, Vols. II and IV, @ 16/ each ... 32 0
9. Jawāmlu-l-'ilm ir-riyāzi, 168 pages with 17 plates, 4to. Part I ... 2 0
10. Khizānatu-l-'ilm ... 4 0
11. Mahābhārata, Vols. III and IV, @ 20/ each ... 40 0
12. Moore and Hewitson's Descriptions of New Indian Lepidoptera, Parts I-III, with 8 coloured Plates, 4to. @ 6/ each ... 18 0
13. Sharaya-ool-Islām ... 4 0
14. Tibetan Dictionary, by Csoma de Kőrös ... 10 0
15. Ditto Grammar ... 8 0
16. Kaḥmīraḥabdāmṛta, Parts I & II @ 1/8/ ... 3 0
17. A descriptive catalogue of the paintings, statues, &c., in the rooms of the Asiatic Society of Bengal, by C. R. Wilson ... 1 0
18. Memoir on maps illustrating the Ancient Geography of Kāsmir, by M. A. Stein, Ph.D., Journal Extra No. 2 of 1899 ... 4 0

Notices of Sanskrit Manuscripts, Fasc. 1-29 @ 1/ each ... 29 0
Nepalese Buddhist Sanskrit Literature, by Dr. R. L. Mitra ... 5 0

N.B.—All Cheques, Money Orders, &c., must be made payable to the "Treasurer, Asiatic Society," only.

PROCEEDINGS
OF THE
ASIATIC SOCIETY OF BENGAL.

EDITED BY
THE HONORARY SECRETARY.

No. VI. JUNE, 1903.



"The bounds of its investigation will be the geographical limits of Asia: and within these limits its inquiries will be extended to whatever is performed by man or produced by nature."

"It will flourish, if Naturalists, Chemists, Antiquaries, Philologists, and men of Science in different parts of Asia, will commit their observations to writing, and send them to the Asiatic Society at Calcutta. It will languish, if such communications shall be long intermitted; and it will die away, if they shall entirely cease."—SIR WILLIAM JONES.

Annual Subscription four rupees. Price per number eight annas. Postage in India (additional) one anna. Price in England one shilling.

The publications of the Society consist—of the *Proceedings*, one number of which is issued, as soon as possible, after every monthly meeting, and of the *Journal*, the annual volume of which is divided into three Parts: Part I being devoted to History, Philology, &c., Part II to Natural Science, and Part III to Anthropology, &c.; each part is separately paged and provided with a special index, and one number of each part is published quarterly. Single numbers for sale at the rates given on the last page of cover.

It is requested that communications for the "*Journal*" or "*Proceedings*" may be sent under cover to the Honorary Secretaries, Asiatic Soc., to whom all orders for these works are to be addressed in India; or, to the Society's Agents, Messrs. Luzac and Co., 46, Great Russell Street, London, W. C., and Mr. Otto Harrassowitz, Leipzig, Germany.

N.B.—In order to ensure papers being read at any Monthly Meeting of the Society, they should be in the hands of the Secretaries at least a week before the Meeting.

CALCUTTA:

PRINTED AT THE BAPTIST MISSION PRESS, AND PUBLISHED BY THE
ASIATIC SOCIETY, 57, PARK STREET.

1903.

Issued October 17th, 1903.

CONTENTS.

	Page.
Monthly General Meeting	105
Presentations	ib.
Election of Members	ib.
Announcements by the Chairman	ib.
Announcement by the General Secretary	106
Mr. E. P. Stebbing: Exhibitions of insects	ib.
Papers:—	
1. <i>Notes on Sundriban Plants.</i> —By D. PRAIN	107
2. <i>Notes on the Grām Devatā or tutelary village deity of Orissa.</i> —By JAMINI MOHAN DAS, Deputy Magistrate, Cuttack. Communicated by the Anthropological Secretary. (Abstract)	108
3. <i>A note on the life-history of Chermes abietis-piceæ, Steb. Ms.</i> —By E. P. STEBBING. (Abstract)	109
4. <i>Notes on the Hindus in the Nushki Tahsil of the Chagai Agency in Baluchistan.</i> —By H. RAI SAHIB DIWAN JAMIAT RAI. Communicated by the Anthropological Secretary. (Abstract)	111
5. <i>The exceptional heat in Bengal, and its probable cause.</i> —By C. LITTLE. (Abstract)	112
6. <i>Notes about the Wanechis (Spin Turin Afghans) of the Shahrig Tahsil, Thal Chotiali, Baluchistan.</i> —By RAI SAHIB JAMIAT RAI. Communicated by the Anthropological Secretary. (Abstract)	113

LIST OF BOOKS FOR SALE

AT THE LIBRARY OF THE

ASIATIC SOCIETY OF BENGAL.

No. 57, PARK STREET, CALCUTTA,

AND OBTAINABLE FROM

THE SOCIETY'S AGENTS, MESSRS. LUZAC AND CO.,

46, GREAT RUSSELL STREET, LONDON, W. C., AND

MR. OTTO HARRASSOWITZ, BOOKSELLER, LEIPZIG, GERMANY.

*Complete copies of those works marked with an asterisk * cannot be supplied—some of the Fasciculi being out of stock.*

BIBLIOTHECA INDICA.

Sanskrit Series.

Advaita Brahma Siddhi, (Text) Fasc. 1-4 @ /6/ each	Rs. 1	5
Advaitachinta Kaustubhe, Fasc. 1	0	6
*Agni Purāna, (Text) Fasc. 4-14 @ /6/ each	4	2
Aitarīya Brāhmaṇa, Vol. I, Fasc. 1-5; Vol. II, Fasc. 1-5; Vol. III, Fasc. 1-5; Vol. IV., Fasc. 1-5 @ /6/	7	8
Aṅu Bhāṣyam, (Text) Fasc. 1-5 @ /6/ each	1	14
Aphorisms of Sāṅḍilya, (English) Fasc. 1	0	12
Aṣṭasāhasrikā Prajñāpāramitā, (Text) Fasc. 1-6 @ /6/ each	2	4
Aṅvavāidyaka, (Text) Fasc. 1-5 @ /6/ each	1	14
Avadāna Kalpalatā, (Sans. and Tibetan), Vol. I, Fasc. 1-5; Vol. II, Fasc. 1-5 @ 1/ each	10	0
*Bhāmatī, (Text) Fasc. 4-8 @ /6/ each	1	14
Bhāṭṭa Dipikā, Vol. I, Fasc. 1-4	1	8
Bṛhaddēvntā, (Text) Fasc. 1-4 @ /6/ each	1	8
Bṛhaddharma Purāna, (Text) Fasc. 1-6 @ /6/ each	2	4
Bodhicaryavatara of Candidevi, Fasc. 1-3	0	12
Catadusani, Fasc. 1	0	6
Catalogue of Sanskrit Books and Manuscripts, Fasc. 1-3 @ 2/ each	5	0
Qntapatha Brāhmaṇa, Vol. I, Fasc. 1-7; Vol. II, Fasc. 1	3	0
Cāraṇasārika Prajñāpāramitā, (Text) Fasc. 1-5 @ /6/ each	1	14
*Caturvarga Chintāmaṇi, (Text) Vols. II, 1-25; III, Part I, Fasc. 1-18, Part II, Fasc. 1-10 @ /6/ each	19	14
Qlokavartika, (English) Fasc. 1-4	3	8
*Crauta Sūtra of Āpastamba, (Text) Fasc. 4-17 @ /6/ each	5	0
Ditto Cāṅkhīyana, (Text) Vol. I, Fasc. 1-7; Vol. II, Fasc. 1-4, Vol. III, Fasc. 1-4 @ /6/ each	5	0
Cri Bhāṣyam, (Text) Fasc. 1-3 @ /6/ each	1	14
Dan Kriya Kaumudi, Fasc. 1-2	1	14
Gadadhara Paddhati Kālasāra Vol. I, Fasc. 1-6	1	14
Kāla Mādhyama, (Text) Fasc. 1-4 @ /6/ each	1	14

Kāṭhāntra, (Text) Fasc. 1-5	...	Rs. 1	14
Kāthā Sarit Sāgara, (English) Fasc. 1-14 @ /12/ each	...	4	8
Kūrma Purāṇa, (Text) Fasc. 1-9 @ /6/ each	...	10	8
*Lalita-Vistara, (English) Fasc. 1-3 @ /12/ each	...	3	6
Madana Pārijāta, (Text) Fasc. 1-11 @ /6/ each	...	2	4
Mahā-bhāṣya-pradipōdyōta, (Text) Fasc. 1-9, and Vol. II, Fasc. 1-9 @ /6/ each	...	4	2
Manuṭikā Saṅgraha, (Text) Fasc. 1-3 @ /6/ each	...	6	12
Mārkaṇḍēya Purāṇa, (English) Fasc. 1-6 @ /12/ each	...	1	2
*Mīmāṃsā Darśana, (Text) Fasc. 7-19 @ /6/ each	...	4	8
Nyāyavārtika, (Text) Fasc. 1-5 @ /6/	...	4	14
*Nirukta, (Text) Vol. III, Fasc. 1-6; Vol. IV, Fasc. 1-8 @ /6/ each	...	1	14
Nityacarapaddhati, Fasc. 1-7 (Text) @ /6/	...	5	4
Nityacarapradīph, Fasc. 1	...	2	10
Nyayabinduṭikā, (Text)	...	0	6
Nyāya Kṣumāñjali Prakaraṇa, (Text) Vol. I, Fasc. 1-6; Vol. II, Fasc. 1-3 @ /6/ each	...	0	10
Padmawati, Fasc. 1-4 @ 2/	...	3	9
Pariṣṭa Parvan, (Text) Fasc. 1-5 @ /6/ each	...	8	0
Prākṛta-Paṅgalam, Fasc. 1-7 @ /6/ each	...	1	14
Prithvirāj Rāsa, (Text) Part II, Fasc. 1-5 @ /6/ each	...	2	10
Ditto (English) Part II, Fasc. 1	...	1	14
Prākṛta Lakṣaṇam, (Text) Fasc. 1	...	0	12
Parācāra Smṛti, (Text) Vol. I, Fasc. 1-8; Vol. II, Fasc. 1-6; Vol. III, Fasc. 1-6 @ /6/ each	...	1	8
Parācāra, Institutes of (English)	...	7	8
Prabandhacintāmaṇi, (English) Fasc. 1-3 @ /12/ each	...	0	12
*Sāma Vēda Saṁhitā, (Text) Vols. I, Fasc. 5-10; II, 1-6; III, 1-7; IV, 1-6; V, 1-8, @ /6/ each Fasc.	...	2	4
Sāṅkhya Sūtra Vytti, (Text) Fasc. 1-4 @ /6/ each	...	12	6
Ditto (English) Fasc. 1-3 @ /12/ each	...	1	8
Sradha Kriya Kaumudi, Fasc. 1-3	...	2	4
Suśrūta Saṁhitā, (English) Fasc. 1 @ /12/	...	1	2
*Taittiriya Saṁhitā, (Text) Fasc. 14-45 @ /6/ each	...	0	12
Tāṇḍya Brāhmaṇa, (Text) Fasc. 1-19 @ /6/ each	...	12	0
Tatva Cintāmaṇi, (Text) Vol. I, Fasc. 1-9; Vol. II, Fasc. 2-10; Vol. III, Fasc. 1-2; Vol. IV, Fasc. 1; Vol. V, Fasc. 1-5, Part IV; Vol. II, Fasc. 1-12 @ /6/ each	...	7	2
Tattvartbadhigama Sutrom, Fasc. 1	...	14	4
Trikāṇḍa-Maṇḍanam, (Text) Fasc. 1-2 @ /6/	...	0	6
Tul'si Sat'sai, (Text) Fasc. 1-5 @ /6/ each	...	0	12
Upamita-bhava-prapañca-kathā (Text) Fasc. 1-6 @ /6/ each	...	1	14
Uvāśagadaśāo, (Text and English) Fasc. 1-6 @ /12/	...	2	4
Varāha Purāṇa, (Text) Fasc. 1-14 @ /6/ each	...	4	8
Vāsa Kriya Kaumudi, Fasc. 1-6 @ /6/	...	5	4
*Vāyu Purāṇa, (Text) Vol. I, Fasc. 2-6; Vol. II, Fasc. 1-7 @ /6/ each	...	2	4
Vidhano Parigata, Fasc. 1-2	...	4	8
Viṣṇu Smṛti, (Text) Fasc. 1-2 @ /6/ each	...	0	12
Vivādaratnākara, (Text) Fasc. 1-7 @ /6/ each	...	0	12
Vṛhannārādiya Purāṇa, (Text) Fasc. 1-6 @ /6/...	...	2	10
Vṛhat Svayambhū Purāṇa, Fasc. 1-6	...	2	4

Tibetan Series.

Pag-Sam Thi S'iā, Fasc. 1-4 @ 1/ each	...	4	0
Sher-Phyin, Vol. I, Fasc. 1-5; Vol. II, Fasc. 1-3; Vol. III, Fasc. 1-5 @ 1/ each	...	13	0
Rtogs brjod dpag hkhri S'iā (Tib. & Sans.) Vol. I, Fasc. 1-5; Vol. II. Fasc. 1-5 @ 1/ each	...	10	0

Arabic and Persian Series.

Ālamgīrnāmah, with Index, (Text) Fasc. 1-13 @ /6/ each	...	4	14
Al-Muqaddasi, (English) Vol. I, Fasc. 1-3 @ /12/	...	2	4
Āin-i-Akbari, (Text) Fasc. 1-22 @ 1/ each	...	22	0
Ditto (English) Vol. I, Fasc. 1-7, Vol. II, Fasc. 1-5; Vol. III, Fasc. 1-5 @ 1/12/ each	...	29	12
Akbarnāmah, with Index, (Text) Fasc. 1-37 @ 1/ each	...	37	0
Ditto (English) Fasc. 1-8 @ 1/ each	...	8	0
Arabic Bibliography, by Dr. A. Sprenger	...	0	6
Bādhāhnāmah, with Index, (Text) Fasc. 1-19 @ /6/ each	...	7	2
Catalogue of Arabic Books and Manuscripts	...	1	0
Catalogue of the Persian Books and Manuscripts in the Library of the Asiatic Society of Bengal, Fasc. 1-3 @ 1/ each	...	3	0
Dictionary of Arabic Technical Terms, and Appendix, Fasc. 1-21 @ 1/ each	...	21	0
Farhang-i-Rashidī, (Text) Fasc. 1-14 @ 1/ each	...	14	0
Fihrist-i-Tūsi, or, Tūsy's list of Shy'ah Books, (Text) Fasc. 1-4 @ /12/ each	...	3	0
Futūh-ugh-Shām of Waqīdī, (Text) Fasc. 1-9 @ /6/ each	...	3	0
Ditto of Āzādī, (Text) Fasc. 1-4 @ /6/ each	...	1	8

Fihrist-i-Tūsī, or, Tūsi's list of Shyah Books, (Text) Fasc. 1-4	...	...	...
/12/ each	...	...	...
Futūh-ugh-Shām of Waqidi, (Text) Fasc. 1-9 @ /6/ each	...	...	3
Ditto of Asādi, (Text) Fasc. 1-4 @ /6/ each	...	...	1
Haft Asmān, History of the Persian Maanawi, (Text) Fasc. 1.	...	...	0
History of the Caliphs, (English) Fasc. 1-6 @ /12/ each	...	...	4
Iqbal-namāh-i-Jahāngiri, (Text) Fasc. 1-3 @ /6/ each	...	...	1
Iqābah, with Supplement, (Text) 51 Fasc. @ /12/ each	...	...	38
Ma'ājir-ul-Umarā, Vol. I, Fasc. 1-9, Vol. II, Fasc. 1-9; Vol. III, Fasc. 1-10; Index to Vol. I, Fasc. 10-11; Index to Vol. III, Fasc. 11-12; Index to Vol. II, Fasc. 10-12 @ /6/ each	...	...	13
Maghāsi of Wāqidi, (Text) Fasc. 1-5 @ /6/ each	...	...	1
Muntakhah-n-t-Tawārīkh, (Text) Fasc. 1-15 @ /6/ each	...	...	5
Ditto (English) Vol. I, Fasc. 1-7; Vol. II, Fasc. 1-5 and 3 Indexes; Vol. III, Fasc. 1 @ /12/ each	...	...	12
Muntakhah-n-Lubbāb, (Text) Fasc. 1-19 @ /6/ each	...	...	7
Ma'āgir-i-'Alamgiri, (Text) Fasc. 1-6 @ /6/ each	...	...	2
Nukhbat-n-Fikr, (Text) Fasc. 1	...	...	0
Nigāmī's Khiradnamāh-i-Iskandari, (Text) Fasc. 1-2 @ /12/ each	...	...	1
Riyāzu-s-Salātin, (Text) Fasc. 1-5 @ /6/ each	...	...	1
Ditto (English) Fasc. 1-3	...	...	2
Tabaqāt-i-Nāṣiri, (Text) Fasc. 1-5 @ /6/ each	...	...	1
Ditto (English) Fasc. 1-14 @ /12/ each	...	...	10
Ditto Index	...	...	1
Tārīkh-i-Firūz Shāhi of Ziyāu-d-din Barni, (Text) Fasc. 1-7 @ /6/ each	...	...	2
Tārīkh-i-Firūzshāhi, of Shams-i-Sirāj Aif, (Text) Fasc. 1-6 @ /6/ each	...	...	2
Ten Ancient Arabic Poems, Fasc. 1-2 @ 1/8/ each	...	...	2
Wis o Rāmin, (Text) Fasc. 1-5 @ /6/ each	...	...	1
Zafarnamāh, Vol. I, Fasc. 1-9; Vol. II, Fasc. 1-8 @ /6/ each	...	...	6
Zusnk-i-Jahāngiri, (English) Fasc. 1...	...	...	0

ASIATIC SOCIETY'S PUBLICATIONS.

1. ASIATIC RESEARCHES. Vols. XIX and XX @ 10/ each ... 20
 2. PROCEEDINGS of the Asiatic Society from 1865 to 1869 (incl.) @ /6/ per No.; and from 1870 to date @ /8/ per No.
 3. JOURNAL of the Asiatic Society for 1843 (12), 1844 (12), 1845 (12), 1846 (5), 1847 (12), 1848 (12), 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 (6), 1884 (6), 1885 (6), 1886 (8), 1887 (7), 1888 (7), 1889 (10), 1890 (11), 1891 (7), 1892 (8), 1893 (11), 1894 (8), 1895 (7), 1896 (8), 1897 (8), 1898 (8), 1899 (8), 1900 (7), 1901 (7), and 1902 (9) @ 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.*
4. Centenary Review of the Researches of the Society from 1784-1883 ... 2
 - A sketch of the Turki Language as spoken in Eastern Turkistan, by R. B. Shaw (Extra No., J.A.S.B., 1878) ... 4
 - Theobald's Catalogue of Reptiles in the Museum of the Asiatic Society (Extra No., J.A.S.B., 1868) ... 2
 - Catalogue of Mammals and Birds of Burmah, by E. Blyth (Extra No., J.A.S.B., 1875) ... 4
 - Introduction to the Maithili Language of North Bihār, by G. A. Grierson, Part II, Chrestomathy and Vocabulary (Extra No., J.A.S.B., 1882) ... 4
 5. Anis-ul-Musharrāhin ... 3
 6. Catalogue of Fossil Vertebrata ... 3
 7. Catalogue of the Library of the Asiatic Society, Bengal, by W. A. Bion ... 3
 8. Ināyah, a Commentary on the Hidāyah, Vols. II and IV, @ 16/ each ... 32
 9. Jawāmiu-l-'ilm ir-riyāqi, 168 pages with 17 plates, 4to. Part I ... 2
 10. Khizānatu-l-'ilm ... 4
 11. Mahābhārata, Vols. III and IV, @ 20/ each ... 40
 12. Moore and Hewitson's Descriptions of New Indian Lepidoptera, Parts I-III, with 8 coloured Plates, 4to. @ 6/ each ... 16
 13. Sharaya-ool-Islām ... 4
 14. Tibetan Dictionary, by Csoma de Kőrös ... 10
 15. Ditto Grammar ... 8
 16. Kaqmīraçabdāmṛta, Parts I & II @ 1/8/ ... 8
 17. A descriptive catalogue of the paintings, statues, &c., in the rooms of the Asiatic Society of Bengal, by C. R. Wilson ... 1
 18. Memoir on maps illustrating the Ancient Geography of Kāsmir, by M. A. Stein, Ph.D., Journal Extra No. 2 of 1899 ... 4

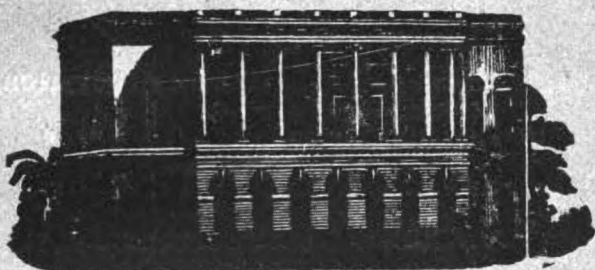
Notices of Sanskrit Manuscripts, Fasc. 1-29 @ 1/ each ... 29
 Nepalese Buddhist Sanskrit Literature, by Dr. R. L. Mitra ... 5

N.B.—All Cheques, Money Orders, &c., must be made payable to the Asiatic Society," only.

PROCEEDINGS
OF THE
ASIATIC SOCIETY OF BENGAL.

EDITED BY
THE HONORARY SECRETARY.

No. XI. EXTRA No. 1904.



"The bounds of its investigation will be the geographical limits of Asia: and within these limits its inquiries will be extended to whatever is performed by man or produced by nature."

"It will flourish, if Naturalists, Chemists, Antiquaries, Philologists, and men of Science in different parts of Asia, will commit their observations to writing, and send them to the Asiatic Society at Calcutta. It will languish, if such communications shall be long intermitted; and it will die away, if they shall entirely cease."—SIR WILLIAM JONES.

Annual Subscription **four rupees**. Price per number **eight annas**. Postage in India (additional) **one anna**. Price in England **one shilling**.

The publications of the Society consist—of the *Proceedings*, one number of which is issued, as soon as possible, after every monthly meeting, and of the *Journal*, the annual volume of which is divided into three Parts: Part I being devoted to History, Philology, &c., Part II to Natural Science, and Part III to Anthropology, &c.; each part is separately paged and provided with a special index, and one number of each part is published quarterly. Single numbers for sale at the rates given on the last page of cover.

* * It is requested that communications or the "Journal" or "Proceedings" may be sent under cover to the Honorary Secretaries, Asiatic Soc., to whom all orders for these works are to be addressed in India; or, to the Society's Agents, Mr. Bernard Quaritch, 15 Piccadilly, London, W., and Mr. Otto Harrassowitz, Leipzig, Germany.

N.B.—In order to ensure papers being read at any Monthly Meeting of the Society, they should be in the hands of the Secretaries at least a week before the Meeting.

CALCUTTA:

PRINTED AT THE BAPTIST MISSION PRESS, AND PUBLISHED BY THE
ASIATIC SOCIETY, 57, PARK STREET.

1905.

Issued 2nd June, 1905.

