SCIENTIFIC RESULTS

OF

THE SECOND YARKAND MISSION;

BASED UPON THE COLLECTIONS AND NOTES

OF THE LATE

FERDINAND STOLICZKA, PH.D.

COLEOPTERA,

GEODEPHAGA AND LONGICORNIA. By H. W. Bates, F.R.S. (Pp. 1-23, with one Plate.)

PHYTOPHAGA, By J. S. Baly, F.L.S. (Pp. 25-36.)

HALIPLIDÆ, DYTISCIDÆ, GYRINIDÆ, HYDROPTILIDÆ, STAPHYLINIDÆ, AND SCAR-ABÆIDÆ (EXCEPT CETONIINI). By D. SHARP, F.R.S. (Pp. 37-53.)

CETONIIDÆ. By Oliver Janson. (P. 54.)

HETEROMERA. By Frederick Bates. (Pp. 55-79, with one Plate.)

Published by order of the Government of India.

CALCUTTA:

OFFICE OF SUPERINTENDENT OF GOVERNMENT PRINTING, INDIA.
1890.



THE RESERVE OF THE PARTY OF THE PARTY.

SCIENTIFIC RESULTS

OF

THE SECOND YARKAND MISSION.

COLEOPTERA.

GEODEPHAGA AND LONGICORNIA.

By H. W. BATES, F.R.S., F.L.S.

INTRODUCTORY REMARKS.

THE Coleopterous insects of the two great tribes which form the subject of the present memoir were collected chiefly during the winter months. It is on this account, probably, that the collection contains so few species of Longicornia, which ought to be abundant in summer on flowers in the elevated valleys, as they are in Northern Europe, in Siberia, and in the Rocky Mountains. A similar remark may be made with regard to the Cicindelidæ family of Geodephaga, 4 species only of which were collected, three being Indian, taken in the Jhelam Valley, and one north of the Himalaya, which proves to be a new species, allied to a species of Palæarctic type found in the Altai. The Carabidæ are more numerous, the species of this family wintering generally in the imago state and being found readily in their usual haunts in the autumnal and early spring months. They afford occasion, however, for only one general remark, namely, that all the species without exception from the region north of the Himalaya are of European types, eight out of the 63 species collected being identical with European species, and the remainder either new species of European genera, or species of similar type previously described from the neighbourhood of the Caspian, or from Western and Northern Asia. The few that were found at Murree, in the Jhelam Valley, or in Ladak are either Indian and subtropical (e.g., Colpodes ovaliceps, Pristomachærus chalcocephalus, Hypolithus perlucens, &c.), or North Indian modifications of Palæarctic types (e.g., Carabus caschmirensis et stoliczkanus, Hypsinephus ellipticus), or well-marked and distinct species of Palæarctic genera, e.g., Bradytus compactus, Acinopus striolatus, Harpalus japonicus, Anchomenus politissimus, Molops piligerus.

GEODEPHAGA.

1.—CICINDELA STOLICZKANA. Bates, Proc. Zool. Soc. 1878, p. 713.

C. Burmeisteri (Fisch.) affinis, sed minor, thorace breviori, etc. Nigra corpore subtus, pedibus, antennarumque basi chalybeo-violaceis, elytris lunula humerali et apicali (hac antice

in maculam rotundatam dilatata) fasciaque mediana, lata, abbreviata, recta, flavo-albis; fronte inter oculos concava, subtiliter strigosa, albo-hirta; thorace brevi, lateribus fere rectis, supra subtilissime granulatim-strigoso: etytris minute, haud confertim granulatis; patpis nigris, albo-setosis: labro albo, convexo: antice medio rotundatim producto, unidentato: corpore subtus pedibusque sparsim albo-pilosis.

Long. $6-7\frac{1}{2}$ lin.

In colour, sculpture, and form of labrum closely resembling C. burmeisteri (Fischer), but of shorter and less convex form; the thorax also being relatively smaller and the elytra more obtusely rounded at the apex. The white marks of the elytra are more numerous and much larger. They are variable in extent and sometimes all blended together along the lateral margin; but the characteristic feature of the non-flexuous, but broad and only slightly oblique, median belt remains constant. The apical lunule always forms a narrow border at the apex of the elytra, but expands into a large rounded spot at its anterior extremity.

Hab.—Without locality. Taken by Stoliczka shortly before his decease, probably on the northern slopes of the Kuen-lun. My specimens of C. burmeisteri came from the Tarbagatai Mountains.

2.—CICINDELA INTERMEDIA.

Chaudoir, Bull. Moscou, 1852, i. p. 6.

Hab.—Jhelam Valley.

3.—CICINDELA LIMBATA.

Wiedemann, Zool. Mag. ii, i. (1823), p. 64.

Mab.—Jhelam Valley. A single example.

4.—Collyris ortygia.

Buquet, Ann. Soc. Ent. France, 1835, p. 604. Chaud., Monogr. Collyr. p. 502, t. 7, f. 6.

Mab.—Jhelam Valley. The single specimen of this species presents scarcely any points of difference from others with which I have compared it taken near Calcutta.

5.—NEBRIA PSAMMOPHILA.

Solsky, Fedchenko's Turkestan, Zool. tom. ii, v, Coleoptera i, p. 12.

Differs from Solsky's diagnosis only in the clearer-red head and thorax, these members according to him being "picescentibus."

Hab.—"Dras, Kargil, and Leh"; many examples. Fedchenko took it in Kokand, near the river Kizil-su.

6.—NEBRIA LIMBIGERA.

Solsky, Fedchenko's Turkestan, Lo. Col. i. p. 13.

Hab.—One example, same locality as the above. Differs from N. psammophila by its larger size and black abdomen. Fedchenko found it in Kokand, "near the Kizil-su and in the hills near the river Isphavia."

7.—CARABUS CASCHMIRENSIS.

Caradus caschmirensis, Kollar & Redtenbacher, în Hügel's "Kasmir, etc." iv. 2 (1844), p. 499, t. 28, f. 4.

lithariophorus, Tatum, Ann. & Mag. Nat. Hist. xx (1847), p. 14.

Hab.—Murree. One example, ♀.

8.—CARABUS STOLICZKANUS.

Bates, Proc. Zool. Soc. 1878, p. 713.

C. cashmirensi (Koll.) affinis. Maxime elongatus, angustus, niger subnitidus: thorace late sub-cordato-quadrato, angulis posticis retrorsum productis, acutis: elytris angustis, post medium perparum rotundato-dilatatis, dorso tuberculorum triplici serie, inter se carina unica separatis. Menti dente verticaliter exstanti, valde compresso; labro medio triangulariter emarginato.

Long. 14-15 lin.

Resembles C. caschmirensis in the form of head, labrum, and tooth of mentum. The thorax is also similar in shape, but scarcely so broadly rounded on the anterior part. The elytra are very different both in shape and sculpture; they are narrower and more parallel in outline and much less convex, and the sculpture, instead of a triple row of narrow elongate tubercles, each row separated by a triple line of granules, consists of three distinct rows of larger, oblong tubercles, separated by a single continuous elevated line. There are, however, only two of those lines, between the 1st and 2nd and the 2nd and 3rd rows; the sutural border being an irregularly-crenated elevation, and the margin, exterior to the 3rd row, consisting of a confused coarse reticulation, with traces of a 4th row of minor tubercles.

Hab.—Murree. Two examples.

9.—CALOSOMA ORIENTALE.

Chaudoir, Ann. Soc. Ent. France 1869, p. 368. Syn. ? C. orientale, Hope, Trans. Zool. Soc. i. p. 92.

Hab.—Kogyar: Sind Valley: "Dras, Karghil, and Leh." The specimens vary a little in the degree of regularity of the fine cross-strise of the interstices; but there is no other character to indicate that they form more than one variable species.

10.—Scarites inconspicuus.

Chaudoir, Bull. Mosc. 1855, i. p. 82.

Hab.—Jhelam Valley. One example agreeing precisely with Baron Chaudoir's description above cited.

A l

11.—SCARITES ARENARIUS.

Bonelli, Obs. Entom. 2, p. 40. Chaudoir, Bull. Mosc. 1855, i, p. 86.

Hab.—Yangihissar. A widely-distributed species, throughout the basins of the Mediterranean and the Caspian; but not hitherto recorded from regions further east. Solsky includes the allied species, Sc. persicus (Chaud.), among the insects taken by Fedchenko in Turkistan. The Yangihissar examples agree better with Sc. arenarius, having two denticulations above the digitation of the anterior tibiæ; they are, however, rather more elongated than specimens from Algiers and Imeritia with which I have compared them. The size is $8\frac{1}{2}$ — $9\frac{1}{2}$ lin.

12.—Dyschirius ordinatus.

Bates, Trans. Ent. Soc. 1873, p. 240.

Hab.—Pamir, between Sirikol and Panga. I see no definite character to separate this small species from D. ordinatus, hitherto known only from Japan.

13.—Broscus punctatus.

Dejean, Spec. Gen. Col. iii, p. 431.

Hab.—No locality, probably near Yarkand. A widely-distributed Oriental species, being recorded from Egypt, Mesopotamia, Nepaul, and China.

14.—Pristomachærus chalcocephalus.

Wiedm., Zool. Mag. ii, i, p. 57.

Hab.—Jhelam Valley. One example, differing from the original Hongkong specimen only in the squarer form of both the yellow elytral spots.

Closely allied to *Pristomachærus messii* of Hongkong (Bates, Trans. Ent. Soc. 1873, p. 324). It differs a little in colour and the form of the anterior elytral spot from Wiedemann's description.

15.—Chlænius spoliatus, var. inderiensis.

Chlanius spoliatus, Rossi., var. inderiensis, Motschulsky, Bull. Mosc. 1864, ii, p. 346.

Hab.—Yangihissar. One example, agreeing perfectly with the above-cited description of a remarkable variety of this widely-distributed species, hitherto recorded only from the borders of lake Indiersk. The type-form occurs throughout nearly the whole Palæarctic region, from the western shores of Europe to Japan.

16.—CHLÆNIUS TENUELIMBATUS.

Ballion, Bull. Mosc. 1870, ii, p. 326. Solsky in Fedchenko's Turkestan, Zoology, tom. ii, v. Coleop., p. 62. Chaudoir, Monogr. Chlænius., p. 263 (1876).

Hab.—Ladakh. Found also near Samarkand and Kodjend. I have compared the numerous examples in Stoliczka's collection with a specimen received from Russia, as taken in "Turkestan," and find no essential difference: the Turkestan specimen has a rather broader thorax, but otherwise of the same shape, so distinct from that of the following species which is subcordate with prominent and acute hinder angles.

17.—CHLÆNIUS LÆTIUSCULUS?

Chaudoir, Bull. Mosc. 1856, ii, p. 248, id., Monogr. Chlenius, p. 264.

Hab.—Ladakh. Also in Northern Hindostan.

18.—Acinopus striolatus?

Zoubkoff, Bull. Mosc. 1833, 317. P. d. l. Brulerie, Ann. Soc. Ent. Fr. 1873, p. 256.

Hab.—Sind Valley. A much damaged example, which I refer doubtfully to this species as a small variety. It is $6\frac{1}{2}$ lines long and of narrow cylindrical form, and the elytral striæ, although fine and with perfectly plane interstices, are more strongly impressed than in *striolatus*. The species occurs in the basin of the Caspian, and was taken near Tashkend by Fedchenko.

19.—Daptus vittatus.

Fischer, Ent. Russ. ii, p. 38, 46, f. 7. Dej., Sp. Gén. iv, p. 19.

Hab.—Yangihissar. One example.

20.—DICHIROTRICHUS ALTICOLA.

Bates, Proc. Zool. Soc. 1878, p. 713.

D. amplipennis (Bates) proxime affinis, differt colore pallidiori et thoracis angulis posticis rotundatis. Oblongus, supra testaceo-fulvus, capite (maculis rufis exceptis) thoracis disco macula alteraque postico-discoïdali elytrorum, nigro-æneis: palpis apice acuminatis: capite et thorace grosse subsparsim punctatis, hoc postice angustato, angulis posticis oblique rotundatis, margine postice arcuato: elytris striatis, interstitiis medio leviter culminato-convexis, biseriatim punctatis: corpore subtus nigro: antennis fuscescentibus. & tarsi duo antici articulis 1—3 ovatis, 4 bilobo.

Long. $2\frac{1}{3}$ lin.

Agrees with D. amplipennis (China), D. tenuimanus (Japan), D. discicollis, Dej., and others in its acuminate palpi, in which these eastern species differ from their West European

congeners. The three basal dilated joints of the s anterior tarsi are not triangular, but ovate, their angles being perfectly rounded. Underneath, the dilated male joints are clothed with long ragged scale-hairs, loosely arranged; but this is the case with the European species of the genus; and the statement of Schaum and others is therefore erroneous, that they are "spongiosi" and bring the genus within the Anisodactylinæ sub-family. The genus is, in fact, allied to Ophonus. The upper surface of D. alticolus is light tawny or reddish-brown, redder on the thorax and a large spot on each side of the head. The rest of the head is brassy-black. The disk of the thorax has a dusky spot, sometimes indistinct. The disk of the elytra has, posteriorly, covering interstices 3 and 4, an elongate black spot. The species is closely allied to the South Russian and Turkestan D. discicollis, Dej., differing chiefly in the obliteration of the hinder angles of the thorax.

Hab.—Pamir, between Sirikol and Panga.

21.—HABPALUS CÆRULEATUS.

Bates, Proc. Zool. Soc. 1878, p. 714.

Elongato-oblongus, glaber, thorace transversim quadrato, postice distincte angustato, lateribus arcuatis, angulis posticis rotundatis, basi utrinque late subcrebre punctato, margine basali bisinuato: elytris apice fortiter sinuatis, supra striatis, interstitiis planis impunctatis, ertio unipunctato.

- à. Supra capite thoraceque nigris politis, elytris caeruleis, subviolaceis, nitidis; antennis nigris, articulo basali rufo: corpore subtus nigro, pectore medio pedibusque rufopiceis; abdomine medio nitido. Immaturo toto corpore castaneo-rufo, nitido, elytris violaceis.
- 4. Nigro-vel rufo-castanea, raro obscuro-nigra; elytris opacis interdum violaceo-tinctis, apice fortius (ut in H. aeneo ?) sinuatis.

An elongate species, similar in form to H. hospes (Sturm), but without its punctuation. Thorax slightly narrowed behind, with hinder angles, but blunted or rather rounded at their apices. The elytra are destitute of punctuation, except the usual marginal row, and their apices are rather deeply sinuate in both sexes, but most so in the Q. The sexual diversity in colour is constant in mature individuals, the male having the head and thorax glossy black, with violet blue elytra; the female being chestnut-red or brown, with elytra sometimes tinged with violet. Terminal spur of the anterior tibiæ lanceolate, simple.

Hab.—Yangihissar and Kogyar.

22.—HARPALUS MELANEUS.

Bates, Proc. Zool. Soc. 1878, p. 714.

H. calceato (Dufts.) forma coloreque similis, at thorace fere impunctato angulisque posticis obtusis. Oblongus, modice elongatus, niger nitidus, elytris opacis; antennis et palpis nigris, articulis omnibus apice piceo-rufis: thorace transversim quadrato, postice leviter angustato, angulis posticis obtusis lateribus antice modice arcuatis, basi utrinque vuge vix punctato, fovea lineari impresso: elytris apice paullulum sinuatis, supra convexis, simpliciter striatis, interstitiis modice convexis, tertio unipunctato.

Long. 6 lin.

Similar in size, form, and colour to the European *H. calceutus*; convex, posterior part of slytra most so. Colour in the & deep shining black above and beneath, in the & the elytra opaque. The legs are more or less piceous, especially the tarsi. The antennæ and the palpi are pitchy-black, the joints in all tipped with dull rufous. The thorax is very moderately rounded anteriorly, and gradually and slightly narrowed behind to the base, the hind angles being not quite rectangular and obtuse at their apices. The base on each side is very faintly roughened and not distinctly punctured, and the fovea is rather distinct and linear. Terminal spur of the anterior tibiæ lanceolate-acute, simple.

Hab.—Sind Valley. Murree. Near Leh.

23.—HARPALUS TURCULUS.

Bates, Proc. Zool. Soc. 1878, p. 714.

Oblongus, niger, & nitidus, & sericinitens, antennis articulo primo rufo, palpis apice flavis: capite modice angusto, lævi: thorace quadrato, antice prope angulos rotundato-angustato postice lateribus exacte parallelis, elytris multo angustiori, angulis posticis rectis, supra impunctato: elytris utroque sexu apice fortiter subrecte sinualis, supra subtiliter striatis, interstitis planis, tertio unipunctato: metasterno grosse sparsim punctato.

Long. 4 lin.

Very similar in colour in both sexes to *H. liodes*; but differing in the smaller size, narrow thorax, and strongly-sinuated apices of the elytra. The head is not notably wide, the eyes are only slightly projecting, and the forehead is remarkably even and smooth. The antennæ reach the base of the thorax; they are black and have the basal article constantly red. The thorax is parallel-sided from the base to the middle; it is then gently arcuated and nearer the head much narrowed. The elytra have the same silky gloss, plane interstices, and fine striæ as *H. liodes*. Terminal spur of anterior tibiæ long, curved, lanceolate.

Hab.—No locality. Probably near Yarkand.

24.—HARPALUS JAPONICUS.

Morawitz, Bull. Ac. St. Petersb. v. 1863, 327.

Hab.—Murree. Many examples differing in no material respect from those of China, Japan, and Formosa.

25.—HARPALUS—?

A single specimen 2; indeterminable.

26.—HARPALUS INDICOLA.

Bates, Proc. Zool. Soc. 1878, p. 714.

El ngato-oblongus, angustior, nigerrimus, & magis, & minus, nitidus, palpis et antennis fulvis: thorace quadrato, lateribus leniter arcuatis, postice longe et modice angustato, angulis posticis paullo obtusis; basi toto subsparsim punctato et paulo rugoso, fovea utrinque obliqua: elytris convexis, apice modice sinuatis, supra striatis (& fortius), interstitiis vix convexis, tertio puncto conspicus impresso: sternis et ventro lateribus grosse haud profunde punctatis.

Long. 5 lin.

Smaller and narrower than *H. melaneus*; head also much smaller or narrower. In form it approaches the European *H. tenebrosus* (Dej.), but the thorax is different in shape, the sides being more arcuated and contracted gradually behind to the base which they join at an obtuse angle. The colour is the same as in *H. melaneus*, except that the antennæ and palpi are reddish-tawny; but this is liable to variation. The elytral striæ are sharply impressed, and become deeper at the apex. The terminal spur of the anterior tibiæ is moderately long, with the basal half dilated but not dentate.

Hab.-Murree.

27.—HARPALUS MASOREOIDES.

Bates, Proc. Zool. Soc. 1878, p. 715.

Parvus, niger subsericeus, lævis, partibus oris antennisque flavo-testaceis, pedibus magis rufescentibus: thorace transverso, elytris vix angustiori, antice gradatim paullulum angustato, angulis posticis rotundatis, lævi, foveola basali utrinque oblonga, marginibus rufescentibus; elytris oblongis, apice late obtusis leniter sinuatis, supra striatis, striis minutissime punctulatis, interstitiis vix convexis, marginibus reflexis et epipleuris piceorufis: menti dente triangulari, acuto.

Long. $2\frac{1}{2}$ lin.

The obtuse-angled thorax and apex of elytra, with the general form and smoothness, give this little species the appearance of a *Masoreus*. The head is small, obtuse, smooth, and polished; the eyes very slightly prominent; the frontal fovea is round and well-defined. The antennæ are rather longer than the head and thorax taken together; they are yellow, with more or less dusky on their pubescent joints. The spur of the anterior tibiæ is obtusely lanceolate, not dilated; the external angle of the apex of the tibiæ has three short and very stout, obtuse spines.

Hab.—Pamir Steppe, between Sirikol and Panga.

28.—HARPALUS LIODES.

Bates, Proc. Zool. Soc. 1878, p. 715.

Ovatus, latus, modice convexus, niger, & serici-nitens, & serici-opacus, antennis palpisque piceo-rufis, illis nigromaculatis, tarsis piceo-rufis: capite lato, lævigato, oculis minus prominulis; thorace valde transverso, antice angustato, postice multo latiori, angulis posticis rectis, fere impunctato: elytris ovatis, apice paullulum sinuatis, supra subtiliter striatis, interstitiis planis, tertio minute unipunctato: tibiis intermediis utroque sexu arcuatis.

Long. $5-5\frac{1}{9}$ lin.

Resembles much large species of the genus Amara. Thorax shorter in relation to the width than in H. brevicornis (Germ.), or any other species of the genus known to me. The head is broad and the forehead flattened and smooth. The thorax is narrower at the apex than at the base; but the sides from the slightly dilated anterior part are slightly rounded, or nearly parallel to the hind angles, which latter are rectangular but blunt at their apex: the disc is obscurely wrinkled and there are a very few punctures in the shallow basal foveæ; otherwise the surface is impunctate. The antennæ are short and far from reaching the base

of the thorax. The elytra are ovate not wider at the base than the thorax, very slightly sinuated near their apex; the striæ are very fine, faintly punctulate, and the interstices flat and impunctate throughout, except the marginal one and the customary one on the third-The colour is deep black, with a bright silky gloss in the ε , but nearly opaque in the Q. The abdomen is impunctate. The metasternum has a few large punctures. Terminal spur of anterior tibiæ long and lanceolate.

Hab.— No locality. Probably near Yarkand.

29.—Hypolithus perlucens.

Bates, Proc. Zool. Soc. 1878, p. 715.

Piceo-niger, læte iridescens, glaber, antennis, palpis, et pedibus fulvo-testaceis: capite lævissimo, post oculos angustato, mandibulis magis rectis et acutis piceo-rufis; fovea frontali lineari versus oculum curvata: thorace quadrato, lateribus leniter fere æqualiter arcuatis, angulis posticis valde obtusis, margine postico late sinuato; supra limbo toto crebre subtiliter punctulato, disco sparsim punctulato, polito, marginibus rufescentibus: elytris fortiter striatis, interstitiis paullulum convexis, politissimis, tertio (prope striam secundam) multipunctato.

Long. 41 lin. 2.

Agrees with certain species of South Africa, in the curved linear frontal fovea, and with such species as *H. glaber* (Boh.) in its naked surface. The undersurface of the insect is iridescent and glabrous, as well as the upper; the ventral segments and the deflexed margins of the elytra being more or less rufescent. The metasteruum has a few shallow punctures. The legs are naked, with the exception of a few stout spines on the outer side of the tibiæ and a few setæ on their inner side and underneath the tarsi. The tooth in the emargination of the mentum is very short, but distinct.

Hab.— Jhelam Valley.

HYPSINEPHUS, nov. gen.

Bates, Proc. Zool. Soc. 1878, p. 715.

Generi Selenophoro proxime affine. Corpus elongato-ellipticum gen. Calatho haud dissimile, supra glabrum. Caput antice haud obtusum, labrum et mandibulæ modice elongata. Mentum rotundato-emarginatum, edentatum. Palpi elongati; maxillarii articulo terminali penultimo breviori, subfusiformi sed apice distincte truncato. Thorax quadratus. Elytra glabra, interstitiis tertio, quinto, et septimo (apice) pluripunctatis. Pedes elongati, validi: tarsi &, articulis anticis 4 dilatatis, cordatis, squamigeris, primo basi gracili apice subito dilatato, quarto breviter bilobo. Tibiæ intermediæ ? arcuatæ.

A new genus is necessary for the reception of a species in Dr. Stoliczka's collection which agrees with the American Selenophori in its chief characters, but differs wholly in facies from that numerous group. The totally different form of the dilated tarsal joints in the male affords a good distinguishing character; the other features enumerated above having only a minor importance. The species described below has doubtless many Asiatic congeners; one I have found among the Harpali collected by Dr. Maack in Eastern Siberia.

30.—HYPSINEPHUS ELLIPTICUS.

Bates, Proc. Zool. Soc. 1878, p. 716.

Piceo-niger vel castaneus, & nitidus, & sericeo-opacus, partibus oris, antennis pedibus-que testaceo-fulvis: capite mox pone oculos angustato, foveis frontalibus rotundatis; thorace quadrato, elytris angustiori, lateribus postice explanatis, arcuatis angulis posticis obtusis, supra impunctato, fovea utrinque basali vage impressa: elytris elongato-ovatis, apice modice sinuatis, striatis, interstitio tertio punctis parvis 5, quinto prope basin 2, septimo apicem versus plurimis impressis, punctis marginalibus parvis.

Long. 6 lin.

Elongate elliptical, varying from pitchy black to castaneous. The lateral margins of the thorax are gradually more and more explanated from the anterior to the posterior angles, and the base has no distinct punctuation. The punctures of the elytra are somewhat variable in number and position: there are 5 or 6 on the third interstice, mostly close to the second stria, and 2 or 3 on the fifth near the base; but in some examples the fifth interstice has a row of punctures near the apex, like the seventh. The margin has a number of minute faintly impressed punctures.

Hab.—Four examples, two without locality, one marked a (from the Knen-lun?), and the fourth from the Pangong Valley: this last has the thorax distinctly more dilated behind and more rectangular hind angles than the others.

31.—HARPALUS QUADRICOLLIS.

Selenophorus quadricollis, Kollar & Redtenb. in Hügel's Kaschmir, iv, 2, p. 502.

Hab.—Between Dras and Leh. The authors above cited placed this species in the genus Selenophorus from the simple emargination of the mentum. M. Putzeys, in his recent monograph of the genus Selenophorus, has rightly restricted it to those Harpalinæ which have the alternate interstices of the elytra pluripunctate and other characters in addition to the simple mentum, and which belong all to America. S. quadricollis is very closely allied to the typical Harpali, but probably a separate genus will eventually be formed for the species with edendate mentum.

32. - STENOLOPHUS MORIO.

Menétries, Catal. Raisonné (1832), p. 136. Id., Insectes rec. p. Lehmann i, 25. Solsky in Fedchenko's Turkestan, Zoology, tom, ii, v, Coleop. i, p. 88.

Hab.—Yangi Hissar; one example. The species occurs in the neighbourhood of the Caspian and in Mesopotamia near Bagdad. The Yangi Hissar specimen has a smaller and rounder thorax than is presented by Bagdad examples with which I have compared it.

33.—Sphodrus indus.

Chaudoir, Bull. Mosc. 1852, i. p. 67,

Hab.—Murree; one example.

COLEOPTERA.

Resembles specimens from Northern India in every other respect, except that the hind trochanters are long and furcate at the apex, with one branch of the fork very short. The specimen is a female.

34.—SPHODRUS CORDICOLLIS.

Chaudoir, Bull. Mosc. 1854, i, p. 43.

Hab.—Murree; one example.

Differs from Syrian specimens by its slightly broader and more ovate elytra.

35.—CALATHUS MELANOCEPHALUS.

Lin., Fauna Suec. No. 795: Putzey's Mon. Calath., p. 58.

Hab.—Pamir, between Sirikol and Panga.

Many examples; differing from the ordinary type of Western Europe by the rather narrower and more parallel-sided thorax and elytra. According to Putzeys, alpine varieties occur which are modified in the same manner.

36.—CALATHUS ANGUSTATUS.

Koll. & Redtenb. in Hügel's Kaschmir, iv, ii, p. 500 (1844). Syn. C. Kollari, Putz., Mon. Calath, p. 56.

Hab.—?

37.—CALATHUS—?

Hab.—A single example, in imperfect condition, ticketed "Sind Valley": it would probably range in the section Pristodactyla.

38.—Anchomenus ladakensis.

Bates, Proc. Zool. Soc. 1878, p. 718.

A. parumpunctato (Lin.) proxime affinis, sed gracilior, thorace longiori, etc. Elongato ovatus, gracilis, supra subfusco-cupreus, capite thoraceque magis aeneis, interdum toto viridiaeneus; corpore subtus nigro nitido; femoribus nigropiceis, tibiis tarsisque rufo-piceis; antennis piceo-fuscis, articulo basali rufo: capite lævi, post oculos magis subito quam in A. parumpunctato angustato: thorace subquadrato, lateribus leniter arcuatis, angulis posticis rotundatis ibique margine explanato-reflexo, toto limbo alutaceo: elytris elongatis, margine basali utrinque fortiter sinuato, lateribus parallelis, supra acute striatis, interstitiis planis, tertio 5-punctato.

Long 31 lin.

Closely allied to the common European A. parumpunctatus. At first sight it seems to differ only in its more slender, narrower form, and rather duller colour; but on closer examination

several minor structural differences are perceived. The head is more suddenly narrowed behind the eyes. The thorax is longer, its outer borders alutaceous and rugose, and the basal line, instead of forming a regular gentle curve, is nearly straight in the middle and obliquely arcuate on each side towards the hind angle, which is more distinct than in A. parumpunctatus; this outline giving the appearance of a broad sinuation in the middle of the base. The strike of the elytra are not so distinctly punctulate, and the interstices rather coarsely alutaceous or granular.

Hab.—Taken between Tangtze and Chagra in the Pangong Valley, altitude probably between 13,000 and 15,000 feet. Some specimens from the Pamir, between Sirikol and Panga.

A. parumpunctatus is found throughout Europe and the Caucasus, and also in Western Siberia.

39.—Anchomenus politissimus.

Bates, Proc. Zool. Soc. 1878, p. 719.

A. fuliginoso (Panzer) formá subsimilis, nigro-aeneus, politissimus: capite breviter ovato, oculis vix prominulis; palpis minus elongatis, articulis ultimis acuminatis: thorace postice angustato, angulis posticis oblique rotundatis, margine prope angulum valde reflexo: elytris apicem versus valde sinuatis, supra obsolete striatis, disco utrinque haud conspicue bipunctato; pedibus aeneis, tibiis rufotestaceis.

Long $2\frac{1}{2}$ lin.

Belongs apparently to the genus Oxypselaphus (Chaud.), which is not admitted by modern authors. The antennæ, however, are longer than in that group, being much longer than the head and thorax; the third joint is not pubescent and is a little longer than the first and the fourth; the basal joint is slightly rufous in front. The maxillary palpi are rather less sharply pointed at the apex than the labials, and all are pale at the tip. The thorax is quadrate-cordate; being a little rounded immediately after the anterior angles, and then gradually narrowed to the base; the lateral margin near the hind angle is remarkably and sharply elevated, and the upper edge of elevated rim has a slight notch. The striæ of the elytra are most visible at the apex, the marginal one being entire. The whole insect is highly polished, having the appearance of being varnished.

Hab.-Murree.

40.—Colpodes ovalicers.

Bates, Proc. Zool. Soc. 1878, p. 719.

Minus elongatus, nigro-chalybeus nitidus, elytris ampliatis, ovatis: capite parvo, ovato, oculis haud prominulis; menti dente apice sulcato-emarginato: thorace ovato capite dimidio latiori, margine laterali æqualiter explanato, subreflexo, angulis posticis subrotundatis: elytris convexis, late ovatis, apice vix sinuatis, humeris rotundatis, striatis, interstitiis planis, tertio tripunctato: metasterni episternis brevibus; antennis, palpis, pedibusque rufopiceis, femoribus nigris.

Long. 5 lin.

Differs from the great majority of the genus Colpodes by a combination of peculiarities,—notched tooth of mentum, short metathoracic episterna, and simply but deeply sinuated fourth

joint of anterior and middle tarsi. The head appears ovate and small, owing to the unsalient eyes and the continued width and fulness far behind the eyes, the short neck close to the thorax only being contracted; the upper surface also at the neck is depressed. The palpi are not notably elongated, and the apical joints are but slightly narrowed to the apex and briefly truncated. The third antennal joint is naked and of the same length as the fourth. The thorax is widest a little before the middle and the sides are there slightly angulated; the anterior angles are prominent, the posterior very obtuse, almost rounded. The tarsi are clothed beneath with long soft hairs, longest on the fourth joint as characteristic of the genus *Colpodes*.

Hab.—Murree.

41.—ARGUTOR DIFFICILIS?

Chaudoir, Enum. Carab. Caucas, p. 136.

Hab.—A single example of an Argutor, from Sanju, closely allied to the common European A. strenuus (Panzer). From its somewhat larger size, I think it likely to be the species, or variety, above-named.

42.—Molops piliferus.

Bates, Proc. Zool. Soc. 1878, p. 718.

Niger, nitidus; thorace late cordato, post medium subsinuatim angustato, angulis posticis rectis; antice juxta marginem lateralem punctis decem longe piliferis lineatim dispositis: elytris elongato-ovatis, convexis, prope apicem fortiter sinuatis, supra exarato-striatis, striis 7—8 valde approximatis, 7ma uninterrupte punctatis, punctis longe piliferis, interstitiis dorsalibus planis, tertio et quinto apice pilifero-punctatis.

Long. 6-7 lin.

Distinguished from all its European congeners by the remarkable row of punctures along the seventh elytral stria, each bearing an extremely long stiff hair: a similar row of hairs accompanies the lateral margin of the thorax, at the rounded anterior part, and a group of the same is situated near the inner margin of each eye. The general shape of the insect is similar to that of M. elatus; but the thorax is more fully rounded anteriorly and more narrowed posteriorly, the hind angles being rectangular and not abruptly prominent. The strike of the elytra are more sharply impressed, not distinctly punctured, and the interstices are plane.

Hab.-Murree.

43.—AMARA TRIVIALIS.

Gyllenhal, Fauna Suec. vi, 240.

Hab.—Two examples: Sind Valley; agreeing tolerably well with West European specimens.

44.—AMARA BAMIDUNYÆ.

Bates Proc. Zool. Soc. 1878, p. 716.

A. triviali (Dufts.) affinis. Ovata, subtus viridi-aenea, supra aenea, antennis articulis 2 basalibus rufis, pedibus nigro-vel aeneo-piceis: thorace quam in A. triviali et A. spreto breviori, basi impunctato, foveolis interiori oblonga, exteriori parva obliqua subobsoleta: elytris striis subtilibus, apice haud profundius impressie, distincte punctulatis, interstitiis planis.

Long. $3\frac{1}{2}$ —4 lin.

Partakes of the characters of three species—trivialis, spreta, and famelica, having the shorter thorax of the last, the basal coloration of antennæ of the second, and the size and colouring of the first. But it is distinguished from all by the peculiarly fine striation of the elytra, in which the punctures are generally more conspicuous and broader than the striæ themselves. Another character is the less polished surface; owing to the minute striation, especially of the elytra, even in the male. In matured individuals the undersurface of the breast and epipleuræ of the elytra is polished brassy green, the abdomen and femora brassy black. The scutellar striole lies between the first and second striæ, arising from near the base of the latter.

Hab.—Pamir; between Sirikol and Panga. A large number of examples.

45.—AMARA AMBIGENA.

Bates, Proc. Zool. Soc. 1878, p. 716.

Breviter ovata, nigro-aenea polita, ventris apice rufo; palpis, antennis basi, pedibus, elytrorumque epipleuris, rufis, elytris interdum castaneis: thorace brevi, antice gradatim rotundato-angustato, apud basin elytris paulo angustiori, margine basali flexuoso, angulis posticis subacutis; foveolis basalibus utrinque duabus latis, sparsim grosse punctatis; elytris brevibus, punctulato-striatis, interstitiis planis: menti dente elongato triangulari sed apice anguste fisso. & Tibiæ posticæ intus pauciter pilosæ.

Long. $3\frac{1}{2}$ lin.

Approaches the genus *Leiocnemis*, the hind tibiæ of the s having only a few soft hairs on their inner edge and the thorax being narrower than the elytra and parallel-sided for a short distance from the base: the facies is also that of *Leiocnemis tartariæ*. The frontal foveæ are narrow, deep, and flexuous. The sides of the thorax are explanated gradually after the middle. The elytral striæ are fine and equally impressed from base to tip, the scutellar striole being united to the first stria. The sterna are smooth.

Hab. —Between Tanktze and Chagra, Pangong Valley.

46. – Leiocnemis Himalaïca.

Bates, Proc. Zool. Soc. 1878, p. 716.

Elongato-ovata, rufo-picea vel castanea supra aeneo-tincta; partibus oris, antennis, pedibusque flavotestaceis; thorace brevi, transverso, lateribus fere æqualiter arcuatis, antice paulo magis quam postice angustato, angulis posticis obtusis, lateribus paululum explanatis, foveolis basalibus grosse sparsim punctatis, interiori rotundata, exteriori vage impressa carinaque obsoletissima vel nulla: elytris acute et simpliciter striatis, interstitiis planis: corpore subtus lævi, nitido.

3. Tibiæ intermediæ subtus medio sinuatæ, deinde paulo dilatatæ et dentioulatæ.

Long. $3\frac{1}{2}$ lin.

The rudimentary bidentate undersurface of the middle tibiæ of the show a tendency towards the genus Curtonotus, but the facies of the species is totally unlike that group; the general appearance of the insect being that of a moderately robust Calathus. There is scarcely any trace of the oblique carina at the posterior angles of the thorax, and the sides of the latter form a tolerably regular curve from base to apex, without the slightest sinuation near the hind angles.

Hab.—" Dras, Kargil, and Leh."

47.—LEIOCNEMIS TARTABLE.

Bates, Proc. Zool. Soc. 1878, p. 716.

Oblongo-ovata, modice convexa, nigra polita, supra aenescens; partibus oris, antennis, pedibusque piceo-rufis: thorace valde transverso, lateribus fortiter arcuatis, antice et postice fere æqualiter angustato, angulis posticis distinctis sed obtusis, basi utrinque foveis duabus modice impressis fortiter punctatis: elytris punctato-striatis, interstitiis planis: prosterni apice late rotundato, marginato, meso-et metasternis punctatis; menti dente lato, magno, bifido.

Long. 31 lin.

The whole surface of the body is polished, beneath black, sometimes piceous and reddish, with the elytral epipleuræ also reddish; above tinged with greenish-brassy, the elytra sometimes bright brassy-green. The frontal foveæ are sharply impressed and linear, as in many other *Leioenemis*. The thorax is transverse, distinctly narrower than the elytra, very strongly rounded on the sides, so as to give it an almost rounded appearance; the widest part is the middle, whence it narrows almost equally towards the apex and the base, the sides joining the base without any sinuation and forming an angle which is more obtuse than rectangular; the basal foveæ are never deep and in some examples scarcely apparent except from their coarse punctuation.

Hab.—Between Yangi Hissar and Sirikol.

48.—Leiocnemis frivola.

Bates, Proc. Zool. Soc. 1878, p. 717.

Parva, oblonga, subtus rufo-castanea, supra nigro-aenea, vel aenea, elytris interdum castaneis aeneo-tinctis; partibus oris, antennis, pedibusque rufotestaceis: foveis frontalibus linearibus extus acute exaratis, antice supra epistomaten continuatis: thorace transversim quadrato lateribus leniter arcuatis; postice minus quam antice angustato, mox ante basin paullulum sinuato, angulis posticis fere rectis; foveis basalibus grosse punctatis; elytris punctulato-striatis; menti dente bifido, plano.

Long. 21 lin.

This small species has the general appearance of a *Bradycellus*. The thorax at first sight appears quadrate, but the sides are gently arcuated and just before the hind angle very slightly incurved, so as to make the hind angles rectangular; but there is some little individual variation in this respect. The frontal foveæ are linear and cross the suture to the epistome which they invade for a short distance; their outer edge (towards the eye) is deepest, and the line is there so sharply incised that their border is vertical, in some lights appearing cariniform.

Hab.—No locality. Taken in the latter part of the journey; on the Pamir or near Yarkand.

49.—AMATHITIS BADIOLA.

Bates, Proc. Zool. Soc. 1878, p. 717.

A. rufescenti (Dej.) proxime affinis, at angustior, corporeque infra nigro. Oblonga, depressa, subtus nigra, supra capite thoraceque rufo-castaneis (illo obscuriori) elytris subfusco-badiis, interdum aeneo-nitidis, striis obscurioribus: capite minus elongato, oculis multo minus quam in A. rufescenti prominulis: thorace elytris angustiori, ante medium modice rotundato-dilatato, prope basin angustato, ibique lateribus obliquis, angulisque posticis vix rectangulis (sed apice acutis); basi toto discrete punctato, foveis modice impressis, carinaque vix elevata: elytris punctulato-striatis, interstitiis planis; corpore subtus nigro-nitido; partibus oris, antennis, pedibusque fulvo-testaceis. Menti dente prominulo, triangulari. Etibiis posticis intus parce breviter pubescentibus.

Long. 4 lin.

Nearly allied to A. rufescens, but abundantly distinct. Its smaller head, much less prominent eyes, and relatively smaller thorax, distinguish it at once, independently of the light brown colour of the elytra. The distinct equilateral triangular tooth of the mentum distinguishes it from A. subplanata of Putzeys,

Hab.—One of Stoliczka's latest captures. The majority of the specimens bear no locality; but one example clearer in the colour of the elytra is ticketed as from the neighbourhood of Sanju.

50.—AMATHITIS KUENLUNENSIS.

Bates, Proc. Zool. Soc. 1878, p. 717.

Valde elongatus, modice convexus, pallide ferrugineus, antennis pedibusque gracilibus, illarum articulo tertio cæteris multo longiori: thorace elytris multo angustiori, late cordato, lateribus antice fortiter arcuatis, postice sinuatim angustato, angulis posticis acutis; supra impunctato, foveis basalibus latis, vagis, carinaque prope angulum indistincte elevata: elytris elongato-ovatis, apice paulo sinuatis, striis lævibus modice impressis.

Long. 5 lin. \circ .

A species remarkable for its very slender antennæ and long legs, apparently allied to A. longipennis (Chaudoir) and allies from the Altai, none of which I have seen. The mentum is scarcely toothed in the middle of its emargination, and the horny ligula is very broad and truncated at the apex. The anterior tibiæ are much dilated and compressed towards the

apex, which is armed with only one long spur and is fringed, as well as the outer edge, with short, strong bristles; the middle and hind tibiæ are clothed all round with long, fine bristles. The episterna of the metathorax are elongated.

Hab.-Neighbourhood of Sanju.

51.—BRADYTUS APRICARIUS.

Carabus apricarius, Payk., Monogr. Carab. p. 77.

Amara apricariu, Dej., Spec. Gen. iii, 506.

Bradytus apricarius, Stephens, Ill. Brit. Ent. i, p. 136.

Hab.—Sind Valley, Dras, Kargil, and Leh: Pamir, between Sirikol and Panga.

The Pamir and Ladakh examples agree closely with the West European form of the common Palæarctic species. One of the Sind Valley specimens is rather more elongate, and is probably the var. parallelus (Chaudoir) from Lenkoran on the Caspian.

52.—Bradytus compactus.

Bates, Proc, Zool. Soc. 1878, p. 717.

Breviter oblongo-ovatus, làtus, subaeneo-niger, convexus; capite brevi et crasso, oculis parum convexis, epistomatis margine antico transversim sulcato; thorace elytris haud angustiori, postice modice angustato, angulis posticis acutis, foveolis basalibus parvis punctatis, carinaque obsoleta: elytris simpliciter striatis, interstitiis planis: palpis, antennis, pedibusque rufopiceis: episternis parumpunctatis: menti dente magno apice inconspicue emarginato.

Long. 4 lin.

Of short, broad, oblong form. Distinguished from all other species by the smooth furrow accompanying the arcuated front margin of the epistome, which itself forms a thickened rim. A further important distinctive character is the absence of the usual carina of the thorax near the hind angles, in the situation of which there is a scarcely perceptible obtuse elevation. The hind angles of the thorax are acute, the arcuated lateral margin being slightly and briefly sinuated just before the angle, and the hind margin being incurved on each side. The elytral striæ are not perceptibly punctured. Prosternum with a long smooth longitudinal furrow. Posterior tibiæ of the male on the inside with a sparse clothing of soft hairs.

Hab.—Murree.

53.—CURTONOTUS PAMIRENSIS.

Bates, Proc. Zool. Soc. 1878, p. 717.

Elongato-oblongus, angustus, rufo-castaneus, supra olivaceo-aeneus, thoracis elytrorumque marginibus reflexis, rufescentibus: capite lævi, mox pone oculos angustato; thorace transversim quadrato ante basin subfortiter constricto, ibique lateribus parallelis et margine laterali haud interrupto, angulis posticis rectis; base grosse subsparsim punctato, foveis utrinque linearibus; elytris striatis, striis (versus apicem exceptis) punctatis: metasterno et ventri basi sparsim punctatis.

3. Tibiis intermediis post medium angustatis et acute breviter bidentatis.

Long. $4\frac{1}{2}$ —5 lin.

In form this species is narrow, with remarkably elongate elytra. The undersurface is constantly chestnut-red, together with the epipleuræ of the elytra and prosternum, the legs, antennæ, parts of the month, epistome, and narrow lateral rims of the elytra and thorax. The rest of the upper surface is dark, brassy-olivaceous. The thorax is of the same width anteriorly as the elytra, but is much narrowed near the base, nearly as in *C. fodinæ*, but the hind angles do not at all project. The elytral interstices are plane; the punctuation of the striæ is strongest in the striæ nearest the suture, and the edges of the interstices are there crenulated; it disappears towards the apex and becomes very faint towards the sides.

Hab.—The Pamir Steppe; between Sirikol and Panga.

54.—BEMBIDIUM (PERYPHUS) PAMIRENSE.

Bates, Proc. Zool. Soc. 1878, p. 718.

Oblongum, depressum, capite thoraceque viridi-vel aurato-aeneis, politis, elytris fulvo-testaceis, vitta suturali (ante apicem abbreviata) fasciaque pone medium (interdum quoque margine et apice) aeneo-fuscis; antennis, palpis, pedibusque flavo-testaceis: thorace breviter cordato, antice fortiter rotundato, angulis posticis rectis, basi rugato, fovea utrinque profunda carinulaque obliqua: elytris striato-punctatis, interstitiis planis.

Long. $2\frac{1}{4}$ lin.

Of the flattened form of B. andreæ, B. femoratum, and allies; elytra scarcely so elongated and rather more ovate than in B. andreæ. Elytral striæ sometimes scarcely impressed, the exterior ones much fainter but visible, all punctate and interstices plane or slightly convex. The apical joints of the antennæ and penultimate joint of the maxillary palpi are faint ashybrown. The dusky cruciform mark on the elytra is very variable and is never very dark or clearly defined. As in the allied species, the sutural border is dilated where the transverse fascia joins it. When the lateral margins are dusky, the colour only covers the marginal interstice.

Hab.—Pamir, between Sirikol and Panga.

55.—Bembidium (Peryphus) punctulipenne.

Bates, Proc. Zool. Soc. 1878, p. 718.

Subdepressum, aeneo-nigrum politum, mandibulis piceo-rufis: thorace antice leniter rotundato, postice usque ad angulos angustato, his fortiter reflexis, obtusis, margine basali utrinque prope angulum valde obliquo; supra basi et margine rugulosis, fovea oblonga: elytris punctato-striatis, striis 1—4 solum impressis, 6—7 obsoletis, interstitiis planis, minutissime sparsim punctatis.

Long. vix 2 lin.

Distinguished from all the species of the group known to me by the form of the thorax. This member is moderately elongate and subquadrate, widest near its anterior angles, where its sides are gently rounded, and after this narrowing moderately to its hind angles; but the lateral margin near these latter becomes flattened-out and reflexed, and the angle itself

(which is obtuse) is a little in advance of the apparent angle, the interval between the two being oblique and curved. The basal fovea lies against the false angle, and the surface between it and the true angle is convex. The punctuation of the elytral interstices is extremely minute and in a single row; visible only in certain lights. The species has the general form of the *Peryphi* allied to *atrocæruleum*.

Hab.—No locality. Most probably the Pamir.

56.—Bembidium (Peryphus) tibiale.

Dufts., Faun. Austr. ii. 209.

Hab.—A single example from Ladak, closely allied to, if not a variety of, this European species.

57.—Вемвідіим sp.

Hab.—A single specimen from Kogyar, in immature condition and indeterminable. It is a *Peryphus*, with strongly rounded thorax and pale apical spot to elytra.

58.—Bembidium 4-pustulatum.

Dej., Spec. Gen. Col. v. p. 186.

Hab.—Between Yangi Hissar and Sirikol. A single specimen, with much enlarged anterior elytral spot.

59.—Anthia orientalis.

Hope, Coleop. Manual ii, p. 163, pl. 6, f. 14.

Hab.—Jhelam Valley, one example. Agrees with Hope's description and figure and with Chaudoir's subsequent description, so far as concerns the depressed elytra and smoother thorax, but differs in the anterior spot of the elytra being transverse-oblong. It forms probably another of the numerous local forms of the A. sexguttata.

60.—METABLETUS TARTABUS.

Proc. Zool. Soc. 1878, p. 719.

M. truncatello (Lin.) paullo major, magis elongatus, subaeneo-niger, nitidus, antennis et pedibus fusco-piceis: thorace quam in M. truncatello postice magis angustato, angulis posticis obtusioribus, deinde usque ad basin magis obliquis; elytris elongatis, apice obtuse subsinuatim truncatis, obsolete striatis, impunctatis.

Long. 13 lin.

Closely allied to the European *Metabletus truncatellus*, but larger and the elytra relatively longer. The colour is a little more metallic, and the thorax differs in being more narrowed behind, with the hind angles much more obtuse and the margin thence to the base more

oblique. The elytra are equally smooth, sometimes only the sutural stria is visible, and in all examples this stria is the only one sharply impressed, most so towards the apex.

Hab.—Between Yangi Hissar and Sirikol. One example, much the most feebly striated, Sind Valley.

61.—Cymindis glabrella.

Bates, Proc. Zool. Soc., 1878, p. 719.

C. andreæ (Ménétr.) affinis; at gracilior, oculis minus prominulis, elytrisque fusco-castaneis, flavomarginatis. Gracilis, glaberrima, castaneo-rufa, abdominis margine picescenti, capite obscuriori, partibus oris, antennis, pedibus, elytrorumque margine fulvo-testaceis: capite angusto, sparsim punctulato: thorace capite haud latiori, anguste cordato lateribus postice leviter sinuatis angulis posticis fere rotundatis, sparsissime punctulato: elytris basin versus angustatis, humeris rotundatis, subpunctulato-striatis, interstitiis sparsim punctulatis: palpis labialibus apice modice dilatatis, triangularibus.

Long. 4-43 lin.

Allied to *C. andreæ*. Upper surface naked and shining, labial palpi moderately dilated, triangular. Eyes scarcely prominent, and punctuation of the whole upper surface very sparse and minute. General colour castaneous, but the thorax redder and the head slightly darker, the margins of the elytra (extending to the 8th striæ) are pale testaceous-fulvus, the antennæ, legs, and parts of the mouth being of a similar hue.

The species seems to be closely allied to *C. pallidula* (Chaudoir) from Lenkoran; but in that species the elytra are not wider at the base than the base of the thorax; in *C. glabrella* they are (taken together) nearly double the width.

Hab.—Ladak.

62.—CYMINDIS MANNERHEIMII.

Gebler, Bull. Acad. Petrop. 1843, 1. p. 36.

Chaudoir, Bull. Mosc. 1850; Suppl. Faune Carab. d. 1. Russie, p. 22.

Hab.—Pamir; between Sirikol and Panga: also the Pangong Valley and between Dras and Leh. By the Russian entomologists recorded as from the Tarbagatai Range. The elytral interstices are of equal breadth and punctured each in more than one row. The Pangong specimens are generally more shining in colour and with more convex and more strongly punctured elytral interstices;?—rufipes, Gebler.

63.—CYMINDIS ALTAICA.

Gebler, Bull. Mosc. 1833, p. 264; id., 1847, p. 276.

Chaudoir, Bull. Mosc. 1850; Suppl. Faune Carab. d. 1. Russie, p. 21.

Hab.—Between Dras and Leh; one example agreeing with the description given of the elytra by Baron Chaudoir, l. c., viz., alternate interstices narrower and with one row only of punctures.



64.—Суміныя sp.

Hab.—One specimen from the route between Leh and Yarkand; without legs and apparently immature.

LONGICORNIA.

1.—PRIONUS CORPULENTUS.

Proc. Zool. Soc. 1878, p. 720.

Magnus, elongatus, nigro-castaneus, supra omnino coriaceus vix nitidus: thorace parvo, utrinque acute trispinoso: elytris basin versus parallelis, compressis, deinde modice dilatatorotundatis apice late obtusis, utrinque lineis elevatis tribus vix conspicuis: pectore toto dense fulvo hirto; abdomine politissimo: antennis 12-articulatis grosse punctatis, articulis 3—11 serratis, 5—12 apice foveo porosa,8—12 irregulariter strigosis. ?

Long. 2 unc.

Remarkable for the great length and bulk of the after-body (including the elytra) relatively to the head and thorax. The palpi are also longer, and their apical joint less dilated than in other species. The posterior thoracic angle is rather more produced and spiniform than in *P. asiaticus* (Falderm.), making the lateral armature 3-spinose; the middle spine is very long and acute. The thorax is narrow as well as short, and is coarsely sculptured, with the exception of a discoïdal convex area, which is more sparsely punctured; anteriorly the thorax is rather abruptly declivous. The elytra are throughout vermiculate-rugose, without mixture of punctures. The legs are long and compressed, and the tarsi, especially the claw-joint, remarkably long.

Hab.—Murree. Two examples, 2.

2.—HESPEROPHANES CRIBRICOLLIS.

Bates, Proc. Zool. Soc. 1878, p. 720.

Cylindricus, fulvus, pilis incumbentibus cinereo-fulvis, apud elytros maculatim, vestitus: thorace rotundato, elytris multo angustiori, inæquali, lateribus medio subtuberoso, supra crebre alveolato-punctatis: scutello cinereo; elytris omnino discrete punctatis haud conspicue bicarinatis, apice gradatim angustatis, subacuminatis.

Long. 8—9 lin.

Closely allied to the European *H. griseus*, but distinguished by its smaller and more coarsely reticulate-punctate thorax, and by the elytra tapering towards the apex causing the sutural angle to be very acute. The fourth antennal joint is only a little shorter than the third and the fifth. The tawny-gray, laid pubescence is very even on the antennæ, the whole undersurface, and the legs.

Hab.—Murree.

TRINOPHYLUM, nov. gen.

Bates, Proc. Zool. Soc. 1878, p. 720.

Gen. Hesperophanes affine, sed femoribus abrupte clavatis, oculisque minus forte granulatis. Corpus elongatum, subdepressum, breviter suberecte pubescens, crebre punctatum.

Caput brevissimum palpis parvissimis. Thorax rotundatus, inermis. Elytra apice obtusa. Acetabula antica extus haud elongata. Prosternum angustum: mesosternum latum, subconvexum. Antennæ filiformes, corpore paullo breviores, articulo 4 to paullo ubbreviato.

The facettes of the eyes are intermediate in size between those of the Hesperophaninæ and the Callidinæ. The structure of the sterna and acetabula is very similar to that of the genus Zamium; but the clavate femora resemble those of Callidium and allied genera. The scarcely elevated antenniferous tubercles are again those of Zamium rather than Hesperophanes.

3.—TRINOPHYLUM CRIBRATUM.

Bates, Proc. Zool. Soc. 1878, p. 720.

Castaneo-fuscum, subnitidum, omnino suberecte fusco-pubescens, crebre sed discrete punctatum: thorace supra antice et postice paullo depresso, linea dorsali lævi: elytris lineis duabus indistinctis lævibus.

Long. $6\frac{1}{2}$ lin.

The general colour is brownish-chestnut, and shining, notwithstanding the rather close slantingly-erect pubescence with which the whole body is clothed: the underside, antennæ, and legs are of a lighter and more reddish hue. The thorax has regularly rounded sides and is but slightly unequal on its upper surface.

Hab.-Murree. Two specimens.

4.—LEPTURA RUBRIOLA.

Bates, Proc. Zool. Soc. 1878, p. 720.

L. sanguinolentæ (Lin.) affinis. Nigra, subtus sparsim fulvo-pilosa, thoracis plaga magna discoidea elytrisque rufo-opacis: capite et thorace crebre reticulato-punctatis, illo ut in L. sanguinolenta paullo post oculos subito et fortiter constricto: thorace medio hand conspicue dilatato modice convexo, angulis posticis modice productis: elytris sub-crebre punctulatis, apice recte truncatis, angulisque breviter dentatis Q.

Long 7 lin. ♀.

Closely allied to the European L. sanguinolenta, differing (\mathfrak{P}) in the upper surface of the thorax being dark red like the elytra; a narrow anterior border and a spot in the middle of the hind border, like the whole undersurface, black: the surface of the thorax and elytra is clothed with a short erect pubescence. The elytra are wholly red, without a trace of black.

3. Taken in the same locality are two 3 examples, which probably belong to this species: they are 5½ lines long. One is wholly black, and the other has the basal half (and a little more) rufo-testaceous, the rest black.

Hab.—Murree.

5.—CLYTANTHUS IGNOBILIS.

Bates, Proc. Zool. Soc. 1878, p. 721.

Cl. 4-punctato (F.) proxime affinis. Nigro-fuscus, tomento cinereo-flavo vestitus, elytris utrinque maculis 5 nigris, quam in Cl. 4-punctato majoribus, scilicet 1 curvata post scutellum,

1 paroa humerali, 1 antico-discoidali, 1 mediana majori transversa, et 1 huic proxima longitudinali oblonga.

Long. 6 lin.

Very closely allied to the Mediterranean Cl. 4-punctatus (F.), the only apparent difference being the larger size of the dark elytral spots. The thorax, however, appears to be a little more cylindrical and less convex both above and on the sides, and is furnished with a number of large scattered punctures (besides the close general punctuation), most conspicuous on the sides. The spot behind the transverse median spot of the elytra is further removed from the apex than in Cl. 4-punctatus.

Hab.—Murree. Two examples.

EXPLANATION OF THE PLATE.

GEODEPHAGA.

Fig. 1. Harpalus carulealus.

- 2. ,, liodes.
- 3. ., indicola.
- 4. " melaneus.
- 5. ,, masoreoides.
- 6. Dichirotrichus alticola.
- 7. Colpodes ovaliceps.
- 8. Cicindela stoliczkana.
- 9. Hypsinephus ellipticus.
- 10. Amathitis kuenlunensis.
- 11. .. badiola.
- 12. Molops piliferus.
- 13. Carabus stoliczkanus.
- 14. Leiocnemis tartariæ.
- 15. Curtonotus pamirensis.
- 16. Anchomenus politissimus.
- 17. Cymindis glabrella.

LONGICORNIA.

- 18. Prionus corpulentus.
- 19. Trinophylum cribratum.
- 20. Clytanthus ignobilis.
- 21. Leptura rubriola, 8?
- 22. " " Ç.

PHYTOPHAGA.

By JOSEPH S. BALY, F.L.S.

The Phytophagous Coleoptera collected by Dr. Stoliczka, although few in number, and containing no striking novelties, are extremely interesting in relation to geographical distribution. The 25 species contained in the collection belong to no less than 21 genera, out of which Nodostoma, Enneamera, Charæa, Macrima, Mimastra, Merista, and Leptorthra (one-third of the whole) are exclusively Asiatic; Paria has its metropolis in America, but is sparingly represented in Japan, China, and Eastern Siberia; Luperodes is largely spread throughout the Asiatic continent, and is also found (according to v. Harold, whose accuracy cannot be doubted) in South America and Abyssinia; of the twelve others, five are cosmopolitan, and the rest occur abundantly in Europe. Out of the 25 species, one only, Plagiodera versicolora, Laich. (armoraciæ, Auct.), is found in Europe; seven, Lema coromandeliana, Clytra palliata, Enneamera variabilis, Galleruca indica, Gallerucella placida, Merista interrupta, and Leptarthra collaris, occur in various parts of British India; two, Haltica cærulescens and H. viridicyanea, have been described by myself from Japan; and one Chrysomela angelica, Reiche, is not uncommon in Syria; the fourteen others have not as yet been found in any other locality, and seventeen species are described for the first time in the present paper.

1.—LEMA COROMANDELIANA, Fabr., var. PRÆUSTA.

Crioceris præusta, Fabr., Ent. Syst. i, 2, p. 8; Lema præusta, Lac., Mon. Phyt. i, p. 340.

Hab.—Jhelam Valley. A single specimen.

2.—CLYTRA PALLIATA.

Clythra palliata, Fabr., Syst. El. ii, p. 30.

Hab.—Jhelam Valley; also various parts of India.

3.—COPTOCEPHALA DUBIA.

Baly, Cyst. Ent. ii. 1875-82, p. 370.

Subelongata, subcylindrica, nitida, subtus nigra, argenteo sericea, prothorace pedibusque fulvis; supra fulva, capitis vertice nigro; thorace lævi; scutello piceo; elytris tenuiter punctatis, fasciá communi baseos, extrorsum abbreviatá, alteráque vix pone medium nigris.

Long. $2\frac{1}{3}$ lin.

Vertex black, impunctate, lower face fulvous, a ray of the same colour extending upwards on the vertex; front deeply excavated between the eyes, irregularly punctured; anterior

margin of clypeus concave-emarginate. Thorax rather more than twice as broad as long; sides rounded, converging from behind the middle to the apex; the anterior angles obtuse, the hinder ones rounded; disc transversely convex, shining, impunctate, excavated on either side near the lateral margin. Scutellum trigonate, piceous. Elytra scarcely broader than the thorax, parallel, very finely punctured; the black markings on their surface extend from the base nearly to the middle of the disc, and again from the middle itself nearly to the apex, leaving only an irregular flavous transverse band across the middle, which sends a narrow ramus along the suture nearly to the base.

Hab.—Murree.

4.—COPTOCEPHALA DIMIDIATIPENNIS.

Baly, Cist. Ent. ii, 1875-82, p. 371.

Subelongata, subcylindrica, flava, nitida, corpore inferiori, capite, elytrorumque limbo inflexo, fulvo hirsutis, thorace lævi; elytris tenuiter punctatis, nigris, a basi ad paulo ante medium flavis.

Long. 3— $3\frac{1}{2}$ lin.

Head clothed with long, erect hairs, minutely punctured; clypeus not separated from the face, its anterior margin angulate-emarginate; apex of jaws black; antennæ equal in length to the head and thorax, the basal joint thickened, pyriform, the second also thickened, short, nodose, the third small, not longer than the second, the fourth trigonate, scarcely longer than the third, the rest to the apex dilated, the fifth to the ninth transversely trigonate, the tenth and eleventh ovate; eyes large, oval, notched on the inner margin. Thorax nearly three times as broad as long; sides obtusely rounded, slightly converging in front, the hinder angles rounded, the anterior ones very obtuse; basal margin sinuate on either side the median lobe, the latter slightly reflexed, very obtusely rounded; upper surface transversely convex, remotely and very minutely punctured, a concave transverse space on and immediately in front of the basal lobe, coarsely and closely punctured. Scutellum longer than broad, subtrigonate, its apex obtuse. Elytra scarcely broader than the thorax at the base, slightly dilated posteriorly, convex, rather distantly and finely punctured. Body beneath and legs clothed with long, erect fulvous hairs.

I possess two specimens of this species, both labelled India, but without precise locality; in one of them the head is more coarsely punctured and subrugose, in all other respects it agrees with the type.

Hab.—Jhelam Valley; also India, my collection.

5.—CRYPTOCEPHALUS INTERJECTUS.

Baly, Cist. Ent. ii, 1875—82, p. 372.

Elongato-oblongus 3, oblongus 2, convexus, nitidus, subtus niger, pedibus nigro-piceis; supra flavus, capite hic illic parce fortiter punctato, fronte sulco longitudinali impresso; vertice, maculis duabus inter oculos, labro, antennisque nigris, his basi, sulco longitudinali, mandibulisque piceis; thorace lævi, limbo angusto et utrinque maculá subrotundatá nigris; scutello subcordato, nigro; elytris fortiter punctato-striatis, punctis piceis, apicem versus minus



fortiter impressis; interspatiis convexis, transversim rugulosis; utrisque limbo angusto, exterso ante medium excepto, maculisque quinque 2, 2, 1 dispositis nigris.

Long. 2½ lin.

Var. A. Pygidio corporeque subtus flavis, illo maculá cuneiformi, pectore, abdominisque disco nigris.

Var. B. Corpore nigro, antennarum basi, clypeo, faciei signaturis, thoracisque lineá longitudinali sordide flavis.

Head rather coarsely but not closely punctured, the puncturing varying in degree in different individuals; front impressed with a distinct longitudinal groove; clypeus broader than long, trigonate; antennæ three-fourths the length of the body in the 2, rather longer in the &, the three lower joints pale piceous, the rest black. Thorax rather more than twice as broad as long at the base; sides moderately rounded and obliquely converging from base to apex; basal margin concave-emarginate on either side, the outer angles produced backwards, acute; above convex, minutely but not closely punctured. Elytra slightly broader than the thorax, oblong-quadrate, convex, rather strongly punctate-striate, the punctures piceous, finer, and less strongly impressed towards the apex; interspaces faintly but distinctly convex. transversely wrinkled; each elytron with the extreme outer limb (interrupted on the lateral margin before its middle) and five large patches black; these spots are arranged as follows: two transversely below the base, the outer one oblong, covering the humeral callus and attached to the basal margin, the inner one subrotundate, placed on the inner disc; two just below the middle also placed transversely, both subrotundate, the outer one usually attached to the lateral margin; and, lastly, one apical, transversely oblong, either free or attached to the apical border; these patches are often more or less confluent, and occasionally, as in var. B, cover the entire surface of the elytron. Pygidium and body beneath clothed with griseous hairs. Apical margin of prosternum obliquely produced, deflexed, slightly emarginate, the hinder margin concave, armed on either side with a deflexed, obtuse tooth; mesosternum transverse, its apical border angulate-emarginate. Apical segment of abdomen in the & impressed with a shallow fovea; the same segment in the 2 deeply excavated, the fovea large, rotundate. Basal joint of the four anterior tarsi in the & dilated, elongateovate, longer than the following two united.

The form of the prosternum will separate this species from any nearly allied species.

Hab.—Murree.

6.—Nodostoma concinnicolle.

Baly, Cist. Ent. ii., 1871-85, p. 373.

Oblongo-ovatum, convexum, pallide piceum, nitidum, pedibus antennisque fulvis; thorace transverso, lateribus ante basin acute angulatis, disco crebre foveolato-punctato; elytris nigris, fortiter punctato-striatis, interspatiis planis.

Long. 2 lin.

Var. A. Elytris piceo-fulvis, punctis piceis.

Head coarsely and deeply punctured, the punctures on the extreme vertex crowded; clypeus not distinctly separated from the face; antennæ slender, filiform, the second joint

ovate, three-fourths the length of the third, the latter two-thirds the length of the fourth. Thorax more than twice as broad as long; sides abruptly diverging and acutely angled just in front of the base, thence obliquely converging to the apex, just before reaching the latter abruptly incurved, the apical angle obtuse, the hinder one armed with a lateral tooth; disc closely covered with large, round, deeply-impressed punctures; on either side are a few short, subcrect griseous hairs. Scutellum longer than broad, cuneiform, its apex obtusely angulate. Elytra convex, transversely depressed below the basilar space, strongly punctate-striate; on the transverse depression, and also below the shoulder, the puncturing is confused; interspaces plane, irregularly wrinkled on the sub-basilar depression. All the thighs armed beneath with an acute tooth.

Hab.—Jhelam Valley.

7.—Nodostoma plagiosum.

Baly, Cist. Ent. ii., 1875-82, p. 373.

Oblongo-ovatum, piceum, nitidum, pedibus antennisque piceofulvis, his extrorsum piceis; thorace profunde et crebre punctato, lateribus pone medium obtuse angulatis; elytris fortiter punctato striatis, striis apicem versus fere deletis; sordide fulvis, limbo angusto, striarum punctis et utrinque plagá irregulari magná, a basi ad paulo pone medium extensá, ad marginem lateralem affixá, piceis.

Long. 14 lin.

Vertex and front sub-remotely punctured; clypeus coarsely and irregularly punctured, not distinctly separated from the upper face, its anterior border deeply excavate-emarginate, the emargination produced and forming two sub-acute teeth; labrum fulvous; antennæ slender, filiform, the second and third joints nearly equal in length, the fourth very slightly longer than the third, four or five lower joints obscure fulvous, the rest piceous. Thorax nearly twice as broad as long; sides diverging at the base, obtusely angled behind the middle, thence obliquely converging and very slightly rounded to the apex; disc transversely convex, very coarsely and deeply punctured. Elytra oblong, sub-acutely rounded at the apex, convex, strongly punctate-striate, the punctures near the apex much finer and nearly obsolete, interspaces plane, impunctate; the irregularly piceous patch on each elytron covers the outer disc (the humeral callus excepted) and extends from the base to just below the middle of the disc. All the thighs armed beneath with a small tooth.

Hab.—Murree. A single specimen, also India, without precise locality, my collection.

8.—PARIA CUPRESCENS.

Baly, Cist. Ent. ii., 1875-82, p. 374.

Anguste ovata, subtus cum capite picea, pedibus antennarumque basi pallidis; supra cuprea, thorace sub-conico, vage punctato; elytris regulariter punctato-striatis, interspatiis planis, impunctatis.

Long. $1\frac{1}{4}$ lin.

Vertex swollen, shining, impunctate; clypeus transverse, its anterior border emarginate; antennæ, rather more than half the length of the body, piceous, the two lower joints paler.

Thorax broader than long at the base; sides straight and obliquely converging from base to apex, the hinder angles very acute; basal margin oblique on either side, the median lobe obtusely rounded; disc subcylindrical, impressed, but not closely, with very shallow punctures. Elytra ovate, attenuated at the apex, regularly punctate-striate, the interspaces plane, each impressed with an irregular row of minute punctures; humeral callus thickened.

Hab.—Jhelam Valley.

9.—Plagiodera versicolora.

Chrysomela versicolora, Laicharting, Verz. Tyrol. Ins. i, p. 148 (1781). Chrysomela armoracia.—Fabr.

Hab.—Jhelam Valley.

10.—CHRYSOMELA ANGELICA.

Chrysomela angelica, Reiche, Ann. Soc. Ent. France, 1858, p. 33, tab. i., fig. 8; Fairm., l. c. 1865, p. 80.

Hab.—Sind Valley; also Syria. I do not detect the slightest difference between specimens brought from Syria and those contained in the present collection.

11.—PHRATORA ABDOMINALIS.

Baly, Cist. Ent. ii., 1875-82, p. 375.

Elongata, parallela, nigro-aenea aut nigro-cyanea, nitida, pedibus abdomineque nigropiceis, hujus segmentis ultimis duobus piceo-fulvis; thorace transverso, sat fortiter irregulariter punctato, utrinque leviter rugoso; elytris thorace latioribus, parallelis, sat fortiter
punctatis, punctis subseriatim dispositis, interspatiis planis, subremote, tenuiter punctatis,
infra callum humeralem transversim rugulosis.

Long. $2\frac{3}{4}$ —3 lin.

Head short, transverse; vertex impressed, but not very closely, with large deep punctures, lower face more closely, but less coarsely, punctured than the vertex, sub-rugulose; in the middle, between the encarpæ, is a short longitudinal sulcation, which extends upwards from the apex of the clypeus; the latter depressed, broader than long, its upper margin obtusely angulate, its surface closely punctured, subrugose; antennæ scarcely more than half the length of the body, filiform, slightly thickened towards the apex, the basal joint thickened, the second slender, equal in length to the first and also to the fourth joints, but slightly shorter than the third; two lower joints fulvous, stained above with piceous, the third to the sixth obscure piceous, the five others slightly thickened, black. Thorax nearly one half broader than long; sides nearly straight and parallel from the base to the middle, thence obliquely converging to the apex, the hinder angles produced laterally into a large acute tooth, the anterior ones subacute; apical margin concave; upper surface irregularly punctured, the interspaces smooth and shining on the middle disc, finely rugulose on the sides. Elytra broader than



the thorax, parallel, rather strongly punctured, the punctures arranged irregularly in ill-defined longitudinal rows, which, on the inner disc below the middle, approximate in pairs; interspaces plane, sparingly and very minutely punctured on the anterior disc, rugulose on the outer one below the humeral callus. Basal joint of anterior tarsus dilated, subcordate.

Hab.—Murree.

12.—HALTICA CŒRULESCENS.

Haltica cœrulescens, Baly, Trans. Ent. Soc. 1874, p. 190.

Hab.-Murree; also China and Japan.

13.—HALTICA VIRIDICYANEA.

Haltica viridicyanea, Baly, Trans. Ent. Soc. 1874, p. 191.

Hab.—Sind Valley, apparently common. I possess this species from Japan; it is probably found in the intermediate localities.

14.—Enneamera variabilis.

Nonarthra variabilis, Baly, Journ. of Entom, i, p. 456, tab. 21, fig. 1.

Hab.—Murree. This species is also found in Northern India.

CHARŒA, n. gen.

Baly, Cist. Ent. ii, 1875-82, p. 376.

Corpus elongato-ovatum. Caput exsertum, facie perpendiculari; oculis rotundatis integris, prominentibus; encarpis tranversis, contiguis; carina oblongo-elongata, apice, acuta; antennis filiformibus. Thorax transversus, dorso modice convexus. Elytra thorace latiora, confuse punctata, limbo inflexo fere ad apicem extenso. Pedes, femoribus posticis non incrassatis; tibiis simplicibus, apice spina acuta armatis; tarsis posticis articulo basali sequentibus tribus longitudine fere æquanti, unguiculis appendiculatis. Prosternum angustum, coxis fere æquialtum; acetabulis anticis apertis.

This genus at first sight bears in its facies a strong resemblance to Aphthora, but the slender hinder thighs at once separate it and place it amongst the Gallerucinæ.

15.—CHARŒA FLAVIVENTRIS.

Baly, Cist. Ent. ii, 1875-82, p. 376.

Elongato-ovata, convexa, subtus picea, aeneotincta, abdomine flavo; supra viridi-cyanea, antennis nigris; thorace lateribus rotundatis, disco lævi, modice convexo; elytris tenuiter confuse punctatis.

Long. 14 lin.

Vertex and front shining, impunctate; encarpæ transverse, contiguous; antennæ half the length of the body, second and third joints equal, the fourth nearly twice the length of

the third; three lower joints nigro-piceous, stained with aeneous, the rest black. Thorax broader than long; sides converging from the middle towards the base; the anterior angles slightly produced, obtuse, the hinder ones rounded, armed with a very small acute tooth; disc moderately convex, very minutely punctured, the punctures only visible under a very strong lens. Scutellum trigonate. Elytra broader than the thorax, parallel, finely but not closely punctured, the interspaces obsoletely wrinkled.

Hab.—Murree.

MACRIMA, n. gen.

Baly, Cist. Ent. ii, 1875-82, p. 377.

Corpus anguste oblongum, convexum. Caput exsertum; antennis filiformibus, articulo primo duobus sequentibus conjunctis æquali, his brevibus, longitudine fere æqualibus; oculis sub-rotundatis, prominentibus; encarpis medio contiguis; carinà obsoletá; palpis maxillaribus articulis duobus ultimis conjunctim anguste ovatis, ultimo apice acuto. Thorax transversus, disco leviter excavatus. Scutellum trigonatum. Elytra thorace latiora, oblonga, confuse punctata, limbo inflexo fere integro, concavo. Pedes mediocres, coxis anticis elevatis, obtrigonatis, contiguis; tibiis apice mucronatis; tarsis posticis articulo primo tribus sequentibus fere æquilongo; unguiculis appendiculatis. Prosternum medio angustissimum; acetabulis anticis integris; episternis posticis a basi ad apicem angustatis. Type, Macrima armata.

Macrima may be separated from Aulacophora, which genus it strongly resembles in outward form, by the closed anterior acetabula and by the appendiculated claws.

16.—MACRIMA ARMATA.

Baly, Cist. Ent. ii, 1875-82, p. 377.

Anguste oblonga, convexa, pallide flava, subnitida, pectore, abdominis segmentis anticis tribus basi, scutelloque nigris; thorace tenuiter punctato, utrinque leviter excavato; elytris distincte subcrebre punctatis, punctis pallide fuscis, utrisque super marginem basalem nigro maculatis.

Long. $3\frac{1}{2}$ lin.

- 3. Facie tridentatá, dente intermedio compresso, nigro, apice deflexo; clypeo utrinque ad apicem foveolato.
 - 2. Facie tridenlatá, dente intermedio non compresso, apice acuto.

Head exserted; vertex smooth, impunctate; face excavated between the eyes, clothed with hairs, tridentate, the middle tooth compressed and deflexed in the \mathfrak{s} , conical in the \mathfrak{g} ; clypeus transverse, impressed at the apex on either side in the \mathfrak{s} with a deep fovea; apex of jaws nigro-piceous; antennæ slender, clothed with coarse suberect hairs, second and third joints nearly equal in the \mathfrak{s} , the third one-half longer than the second in the \mathfrak{q} . Thorax about three times as broad as long; sides parallel and slightly sinuate behind the middle, obliquely converging from the middle to the apex, the anterior angles slightly produced



obtuse, the hinder ones obtusely angulate; upper surface moderately convex, the lateral margin rather broadly reflexed, disc irregularly excavated; finely but not very closely punctured, interspaces minutely granulose-strigose. Scutellum trigonate, shining black. Elytra broader than the thorax, oblong, moderately convex, faintly excavated below the basilar space, more strongly punctured than the thorax, the punctures pale fuscous.

Hab.—Jhelam Valley.

17.—MIMASTRA GRACILIS.

Baly, Cist. Ent. ii, 1875-82, p. 378.

Elongata, attenuata, pallide flava, nitida, antennis (basi exceptis) fuscis, oculis nigris, genubus tarsisque piceis; thorace transverso, basi emarginato, disco irregulariter excavato, lateribus late marginatis, ante medium angulatis, elytris parallelis, tenuiter punctatis.

Long. 3 lin.

Head strongly exserted; encarpæ and clypeus thickened, the former bounded above by a transverse groove, trigonate, contiguous for their whole length; antennæ very slender, filiform, nearly equal to the body in length, second joint about half the length of the basal one, nearly a third shorter than the third; three basal joints pale flavous, the rest pale fuscous. Thorax transverse; sides broadly margined, nearly parallel, distinctly angled just beyond the middle, thence obliquely converging to the apex; disc broadly and irregularly excavated, impunctate. Scutellum trigonate. Elytra broader than the thorax, parallel, elongate; disc very minutely punctured, very faintly wrinkled. Outer edge of knees, together with the tarsi, pale piceous.

Hab.—Murree.

18.—AGELASTICA ORIENTALIS.

Baly, Cist. Ent. ii, 1875—82, p. 379.

Elongato-ovato, convexa, metallico-cærulea, nitida, antennis nigris; thorace elytrisque crebre punctatis, illo lateribus rotundatis.

Long. $3\frac{1}{2}$ —4 lin.

Encarpæ and clypeus thickened, the former pyriform, contiguous, separated from the front by a deep transverse groove; antennæ filiform, half the length of the body, the second joint short, the third one-half longer than the second, more than half the length of the fourth. Thorax nearly three times as broad as long; sides rounded, slightly converging in front; the hinder angles rounded, the anterior ones obtuse; disc closely punctured. Scutellum trigonate, shining, impunctate. Elytra rather broader than the thorax, oblong, closely punctured.

Hab.—Neighbourhood of Sanju, apparently common.

Closely allied to A. cærulea, it may be known from that insect by the relative lengths of the second and third joints of the antennæ.



19.—MALACOSOMA FLAVIVENTRE.

Baly, Cist. Ent. ii, 1875-82, p. 379.

Elongatum, convexum, obscure viridi-aeneum, nitidum, abdomine flavo, antennis (basi exceptis) nigris; thorace transverso, minute, subremote punctato; elytris oblongis, infra basin transversim excavatis, tenuiter punctatis.

Long. 4 lin.

Head trigonate; vertex and front smooth, impunctate, the latter separated from the encarpæ by a deep groove; encarpæ transverse, contiguous above, separated below by the narrow wedge-shaped carina, the surface of which is coarsely punctured; antennæ more than half the length of the body, moderately robust, filiform, the second joint short, the third twice the length of the second, the fourth about one-third longer than the preceding one. Thorax about one-half as broad again as long; sides moderately rounded, the anterior angles armed with an obtuse tubercle, the hinder ones acute; disc moderately convex, finely but rather distantly punctured; lateral margin reflexed. Scutellum smooth, impunctate. Elytra much broader than the thorax, oblong, convex, transversely excavated below the basilar space, the latter slightly elevated; surface finely but not very closely punctured, very sparingly clothed with short hairs: on the apical half of each elytron is a number of broad, ill-defined, longitudinal sulcations. Abdomen flavous, the apex of the terminal segment emarginate.

Hab.—Murree.

20.—LUPERODES ERYTHROCEPHALA.

Baly, Cist. Ent. 1875-82, p. 380.

Anguste oblongo-ovata, convexa, nigra, nitida, capite rufo-testaceo, ore, antennis, pedibusque piceis; thorace crebre punctato, disco utrinque leviter transversim excavato; elytris sat crebre punctatis.

Long. 2 lin.

Head exserted, vertex and front shining, impunctate; encarpæ transverse, contiguous; labrum piceous; jaws and palpi rufo-piceous; antennæ filiform, three-fourths the length of the body, second and third joints short, conjointly about equal in length to the first. Thorax twice as broad as long; sides rounded, slightly converging at the base; all the angles distinct, the anterior thickened, sub-tuberculate; disc closely punctured, distinctly excavated on either side. Elytra oblong, less closely punctured than the thorax.

Hab.-Murree.

21.—GALLERUCA VITTATIPENNIS.

Baly, Cist. Ent. ii, 1875-82, p. 380.

Elongato-oblonga, convexa, nigro-picea aut nigra, nitida, vertice rufo-piceo, abdominis segmentorum margine apicali pallide rufo-piceo; thorace excavato, rude foveolato; elytris abdomine multo brevioribus, fortiter substriatim punctatis, sordide fulvis, utrisque lineá

suturali elevată, vittisque elevatis quatuor, utrinque abbreviatis, 1mâ et 4tá, 2dá et 3tiá apice per paria conjunctis, nigro-piceis instructis.

Long. 41 lin.

Head sub-rotundate, vertex and front deeply and coarsely foveolate-punctate, impressed in the middle with a deep longitudinal groove, which extends downwards between the encarpæ as far as the apex of the clypeus, where it terminates in a triangular fovea; encarpæ thickened, trigonate, smooth, impunctate; clypeus very short, thickened and forming a transverse ridge, its anterior border narrowly edged with rufous; antennæ robust, the second joint ovate, rather more than half the length of the third, the third and fourth joints equal. Thorax rather more than twice as broad as long; sides sinuate and parallel from the base to beyond the middle, thence obliquely converging to the apex, the anterior angles slightly produced, somewhat recurved, obtuse; disc excavated on either side, the middle disc impressed with a broad longitudinal sulcation which extends from base to apex; the whole surface covered with large, deep, round foveæ. Scutellum semirotundate, piceous, impunctate.

Hab.—On the road across the Pamir, from Sirikol to Panga.

22.—GALLERUCA INDICA.

Baly, Cist. Ent. ii, 1875-82, p. 381.

Ovata, postice paulo ampliata, modice convexa, nigra, subtus nitida, griseo-sericea, supra opaca; capite thoraceque rude rugoso-punctatis, hoc transverso, utrinque foveolato, medio longitudinaliter sulcato, lateribus reflexis, ante medium obsolete angulatis; elytris vage rufo-piceo limbatis, rugoso-punctatis, utrisque vittis elevatis quatuor, duabus intermediis interruptis, interdum fere omnino obsoletis, instructis.

Long. 5 lin.

Head very coarsely rugose-punctate. Thorax nearly twice as broad as long; sides parallel, slightly sinuate, obtusely angled just before the middle, thence obliquely converging to the apex, the anterior angle moderately produced, its apex rounded; disc very coarsely rugose-punctate, the middle portion with a longitudinal sulcation which extends from base to apex, either side impressed with a large fovea. Scutellum coarsely rugose-punctate. Elytra broader than the thorax, ovate, slightly dilated towards the apex, moderately convex, rugose-punctate, but less coarsely so than the head and thorax; black, sometimes tinged with piceous, the outer margin obscure rufo-piceous; each elytron with four raised vittæ, the two intermediate ones interrupted, and sometimes almost entirely obsolete; the suture also thickened.

Hab.—Murree; also Northern India, my collection.

23.—GALERUCELLA* PLACIDA.

Baly, Cist. Ent. ii, 1875—82, p. 381.

Anguste oblonga, griseo-hirsuta, subtus picea, nitida, prothorace fulvo; supra sordide fulva, subnitida, antennis, verticis plaga, thoracis maculis tribus transversim positis, scutel-

* Galerucella, Crotch, Proc. Acad. Philad. 1873, p. 55.

loque basi piçeis; thorace transverso, lateribus ante basin dente subacuto armatis, ante dentem concavis, ante medium ampliatis, disco rude rugoso, bifoveolato; elytris profunde confuse punctatis, interspatiis granulosis.

Long. 2 lin.

Vertex and front finely rugose-punctate, clothed with appressed griseous hairs, the middle with a large ill-defined piceous patch; encarpæ thickened, contiguous, pyriform; antennæ moderately robust, filiform, the second joint nearly equal in length to the first, about two-thirds the length of the third. Thorax more than half as broad again as long; sides diverging at the base, and armed at the apex of the diverging portion with a subacute, setiferous tooth, immediately in front of which, before the middle, they are deeply sinuate, in front they are broadly dilated, the anterior angle armed with a subacute tooth; disc coarsely rugose-punctate, broadly excavated on either side, and again more deeply, but to a less extent, on the anterior half of the middle disc; the piceous patches, placed transversely on the disc, are large but ill-defined, and cover nearly the whole of the surface. Scutellum narrowed from its base towards the apex, the latter obtusely truncate. Elytra oblong, nearly parallel, deeply and coarsely punctured, densely clothed with short suberect griseous hairs.

Hab.—Jhelam Valley, one specimen; I also possess this insect from India.

24-MERISTA INTERRUPTA.

Galleruca interrupta, L. Redtb. in Hugel's Kaschmir, iv, p. 553, tab. xxvii, fig. 4 (1844).

Hab.—Murree, a single specimen.

The transverse black patch differs greatly in extent in different individuals, in some being entirely obsolete; in the specimen before me it is reduced to two small fuscous points placed transversely on the middle disc.

In this species, of which I possess many specimens from various parts of India, the second and third joints of the antennæ vary in relative length in the sexes: in the & these joints are very short and nearly equal; in the 2 the third joint, though short, is distinctly longer than the second.

25.—LEPTARTHA COLLABIS.

Baly, Cist. Ent. ii, 1875-82, p. 382.

Ovata, postice ampliata, nigra, nitida; thorace transverso, fulvo; elytra fortiter sat crebre punctatis, castaneis, punctis piceis, utrisque maculá basali juxta suturam nigro-aeneá notatis.

Long. $4\frac{1}{2}$ —5 lin.

Vertex shining, impunctate; encarpæ thickened, contiguous, semilunate; antennæ nearly equal to the body in length, filiform, tapering towards the apex, second and third joints very short, equal. Thorax transverse, sides constricted behind the middle, dilated in front, the anterior angles produced, their apices obtuse; apical border concave-emarginate; disc smooth, impunctate, thickened on either side near the anterior angle, impressed on each

side the middle with a faint transverse groove. Scutellum trigonate. Elytra broader than the thorax, dilated behind the middle, moderately convex, deeply punctured, the punctures piceous, arranged without order over the general surface, placed in ill-defined longitudinal striæ near the base of the suture; on the anterior disc are several short ill-defined obsoletely raised vittæ; at the base of each elytron, close to the suture, is a small nigro-aeneous patch. Last two segments of abdomen bordered with fulvous.

In the specimen from Murree, the sides of the thorax are less dilated anteriorly, the anterior angles being less produced and at the same time more acute; the transverse depressions on the middle disc are also obsolete; in this specimen the antennæ are unfortunately broken, but the fourth and fifth joints (which remain) are slightly compressed, and are rather more robust than in the insect from Northern India; it is probably the other sex.

Hab.—Murree; in my own collection from Northern India.

HALIPLIDÆ, DYTISCIDÆ, GYRINIDÆ, HYDROPTILIDÆ, STAPHY-LINIDÆ, AND SCARABÆIDÆ (EXCEPT CETONIINI).

By D. SHARP.

HALIPLIDÆ.

HALIPLUS (Munich Cat.).

1.—HALIPLUS MACULIPENNIS, Schaum.

A single individual found in the Jhelam Valley, July 1873. Differs a little from the Egyptian specimens of the species by being rather smaller, and by the punctuation of the elytra being rather less coarse and deep.

DYTISCIDÆ.

HYDROPORUS (Munich Cat.).

1.—DYTISCUS GRISEO-STRIATUS, Degeer.

A series of this species, which is in Europe alpine and boreal, was found in the Pankong Valley in September 1873. The specimens show more variation in markings than I have observed in European individuals.

AGABUS (Munich Cat.).

1.—AGABUS ABNORMICOLLIS, Ballion.

This interesting species is allied to the Corsican A. cephalotes; it is represented in the collection by a very mutilated female specimen, without indication of locality or date.

2.—Dytiscus nitidus, Fab.

Dras, Kargil, and Leh, 15th August to 9th September 1873. Three individuals.

3.—AGABUS AMŒNUS, Solsky.

A single female of an Agabus found in the neighbourhood of Sanju I refer to this species, although it differs from Solsky's diagnosis (Fedchenko's, Turkestan, Coleoptera, p. 142) in having the ventral segments entirely black. The species has an elongate and acuminate prosternal process, which projects far back, between the middle legs.

4.—AGABUS DICHROUS, n. sp.

Oblongo-ovalis, nitidus, subtus niger, supra testaceus, vertice nigro, rufo bimaculato, antennis pedibusque testaceis, femoribus in medio late nigris; scutello fusco; elytris apicem versus vix fusco-nebulosis.

Long. 8 mm., lat. 4 mm.

This species is closely allied to the European Dytiscus conspersus, Marsh., but is comparatively narrower and more parallel, and the colour of the upper surface is more purely yellow and much less infuscate: the dark mark on the head is much less extended towards the front, and is deeply divided in the middle by a backward prolongation of the yellow colour. The male has the front tarsi moderately thickened, and their anterior claw is little thickened or toothed in the middle. The female I have not seen.

A single male individual was found on the road across the Pamir from Sirikol to Panga, 22nd April to 7th May 1874.

ILYOBIUS (Munich Cat.).

1.—ILYBIUS CINCTUS, n. sp.

Ovalis, angustulus, parum convexus, subtus ferrugineus; supra fusco-aeneus, prothoracis elytrorumque lateribus late testaceis, subnitidus subtilissime reticulatus.

Long. $8\frac{1}{4}$ mm., lat. vix $4\frac{1}{2}$ mm.

This is one of the smallest species of Ilybius, and is allied to the Japanese *I. apicalis*; it is, however, smaller and narrower than that species, and the yellow lateral stripe is continued at the extremity to the suture, and close to the suture it has one or two angular prolongations. The male has the front and middle tarsi a good deal incrassate, and their claws are nearly simple.

Two individuals (in bad preservation) from Yangihissar, April 1878.

RHANTUS (Munich Cat.).

1.—Colymbetes pulverosus, Sturm.

A female individual found at Sanju seems to be referable to this species; it has not, however, the small central mark on the thorax that exists in the European specimens of the species, and it is possible that a knowledge of the male would show it to be a distinct species.

TROGUS (Munich Cat.).

1.—Dytiscus ræselii, Fab.

A female specimen of this common European species was found at Yarkand, 21st to 27th May 1874.

GYRINIDÆ.

DINEUTES (Munich Cat.).

1.—DINEUTES INDICUS, Aubé.

This species is represented by two very large male individuals found in the Jhelam Valley, July 1873.

HYDROPHILIDÆ.

HYDROPHILUS (Munich Cat.).

1.—HYDROPHILUS PICEUS, Fab.

Sanju, and Yarkand.

HYDROBIUS (Munich Cat.).

1.—Hydrophilus bicolor, Payk.

Kogyar, 31st May to 2nd June 1874. Three individuals.

PHILHYDRUS (Munich Cat.).

1.—PHILHYDRUS MARITIMUS, Thoms.

Kogyar, 31st May to 2nd June 1874. Two individuals. In Europe the species is found only in brackish waters.

STAPHYLINIDÆ.

TACHYPORUS (Munich Cat.).

1.—STAPHYLINUS CHBYSOMELINUS, Lin.

On the road across the Pamir, from Sirikol to Panga. Three individuals.

TACHINUS (Munich Cat.).

1.—TACHINUS STOLICZKÆ, n. sp.

Paroulus, subdepressus, niger, elytris castaneis vel piceo-castaneis, antennis pedibusque sordide testaceis; prothorace fere impunctato, elytris parce punctatis, obsolete strigosulis-abdomine sat crebre subobsolete punctato.

Long. 6 mm., lat. $1\frac{5}{8}$ mm.

This species is closely allied to the European T. fimetarius, but is rather larger. The

antennæ are formed as in that species, but are rather longer and paler in colour. The punctuation of the elytra is fine and very scanty, and the fine scratches are less distinct than in *T. fimetarius*: the abdominal punctuation is rather denser than it is in the European species. In the male, the dorsal plate of the last segment ends in four short stout teeth as in *T. fimetarius*; the ventral plate of the same segment is also almost similar in the two species; the ventral plate of the preceding segment has a broad notch in the middle; this is fringed, except in the middle, with very distinct pectinations, and in the middle, where the pectinations are absent, the margin has a rough or spongy appearance; the termination of the notch on each side is not acuminate: the chief differences from *T. fimetarius* are the less produced and less acuminate terminations of the notch, and the greater development of the pectinations of its margin. The dorsal and ventral plates in the female are formed as in *T. fimetarius*, except that the teeth of both plates are very much longer.

Four individuals found on the road across the Pamir, from Sirikol to Panga, between the 22nd April and 7th May 1874.

CREOPHILUS (Munich Cat.).

1.—STAPHYLINUS MAXILLOSUS, Lin.

Kogyar, 1st June 1874.

PHILONTHUS (Munich Cat.).

1.—PHILONTHUS CYANELYTRIUS, Kr.

Murree. One individual.

2.—PHILONTHUS ROTUNDICOLLIS, Men.

Sanju, Pamir, Yarkand. A large series of this species exhibits considerable variation in colour.

3.—STAPHYLINUS SORDIDUS, Gray.

A single individual, without locality or date, has the elytra darker coloured than usual.

4.—PHILONTHUS STOLICZKÆ, n. sp.

P. rubido Er. similis et affinis: angustulus, subparallelus, niger, elytris rufis, antennis fuscis, basi cum pedibus testaceo, abdominis segmentis ferrugineo-marginatis; thorace angustulo, subparallelo, serie discoidali punctorum 5, et punctis lateralibus sat numerosis; elytris rufis basi summo paulo obscuriore, crebre, fere fortiter punctatis; abdomine dense, æqualiter subtiliterque punctato, opaco.

Long. 5 mm.

Antennæ moderately long, second and third joints rather long, sub-equal, tenth about as long as broad. Palpi yellow. Head sub-oblong, with rather numerous coarse punctures, which

are wanting along the middle in front. Thorax narrower than the elytra, not narrowed in front; the punctures coarse, the lateral series at the base mixed with the dorsal series. Hindbody throughout densely and very finely punctured. Front tarsi of male a little dilated, and last ventral segment with a moderately large excision.

This seems to be a very distinct little species, and resembles in some respects the species of the genus *Actobius*, Fauvel. It is rather similar to *P. rubidus*, Er., but has the hindbody much more finely and densely punctured, and the thoracic lateral punctures, as well as those of the head, more numerous.

Yarkand, November 1873. A single specimen.

5.—PHILONTHUS PAMIRENSIS, n. sp.

Ex affinitate Staphylini tenuis, Fab. Angustulus, haud parallelus, niger, elytris rufis, antennis pedibusque posterioribus fuscis, illarum basi pedibusque anterioribus testaceis; abdomine subtiliter punctato.

Long. 6 mm.

Antennæ stout, distinctly thickened towards the apex; the basal joint yellow. Palpi blackish. Head oval, narrow, finely punctured at the sides behind the eyes. Thorax narrower than the elytra, a little narrowed in front, black, very shining, the dorsal series consisting of five fine punctures; the lateral punctures few and fine. Elytra about as long as the thorax, red, rather finely punctured. Hindbody narrowed towards the apex, the segments finely punctured.

The male has the front tarsi rather strongly dilated.

Though closely allied to Staphylinus tenuis, Fab., this species is readily distinguished from it by its black thorax.

A single individual was found on the road across the Pamir, from Sirikol to Panga, between the 22nd April and 7th May 1874.

PÆDERUS (Munich Cat.).

1.—Pæderus fuscipes, Curtis.

Jhelam Valley.

OXYTELUS (Munich Cat.).

1.—OXYTELUS NITIDULUS, Grav.

A single individual, without date or locality.

SCARABÆIDÆ (Munich Cat.).

SISYPHUS (Munich Cat.).

1.—Sisyphus hirtus, Wied.

Jhelam Valley, July 1873. Three individuals.

GYMNOPLEURUS (Munich Cat.).

2.—GYMNOPLEUBUS MUNDUS, Wied.

Jhelam Valley, July 1873. A single individual.

3.—Copris cyaneus, Fab.

Jhelam Valley, July 1873.

Harold (Col. Hefte V, p. 56) thinks G. indicus, Cast., a distinct species from the Fabrician Copris cyaneus; but it appears to me more probable that Gymnopleurus indicus, Cast., and Gymnopleurus impressus, Cast., are merely varieties of the variable Copris cyaneus, Fab.

CATHARSIUS (Munich Cat.).

4.—Copris sabæus, Fab.

Jhelam Valley, July 1873. One female specimen.

COPRIS (Munich Cat.).

5.—Copris sinicus, Hope.

Murree.—The two individuals which represent this species are a very small undeveloped male, and a female; they are undoubtedly conspecific with an individual from Chosan in my own collection.

ONTHOPHAGUS (Munich Cat.).

6.—Copris gazella, Fab.

This abundant and widely-distributed species was found in the Jhelam Valley, July 1873.

7.—Onthophagus reflexicornis, Reiche.

A single individual of an Onthophagus found at Kogyar, 31st May—2nd June 1874, seems to be a variety of a species from Northern India, named as above in my collection.

8.—Onthophagus armiceps, Reiche.

A single individual of an Onthophagus found in the Jhelam Valley, July 1873, seems to be probably a very undeveloped male, of a species bearing the above name in my collection.

9.—Onthophagus concolor, n. sp.

Niger, fere nudus, supra opacus, subtus sat nitidus; prothorace peropaco, parcius subtiliter punctato, lateribus ad angulos anteriores evidenter sinuatis; elytris subtiliter striatis, interstitiis parcius et subtiliter punctatis, punctis haud perspicue setigeris.

Long. 7-9 mm.

Mas.—Capite vertice medio breviter tuberculato, prothorace fere mutico.

Fem.—Capite medio linea curvata sat elevata, vertice medio lamina elevata (ad apicem plus minusve emarginata) brevissima.

Antennæ black, with the intermediate joints marked with red. Clypeus broadly, but very lightly, emarginate in the middle in front, its anterior part coarsely and rugosely punctured. Thorax quite sparingly punctured, the punctures most numerous near the front in the middle, quite wanting at the anterior angles. The punctures of the elytra are inconspicuous, but are rather less indistinct on the external interstice, and are there seen to be fine granulations. The pygidium is very opaque and sparingly punctured. The ventral segments are almost impunctate, the breast is sparingly punctured, and bears a few black hairs. The tarsi are pitchy.

This species has the appearance of the South African O. giraffa, but is readily distinguished therefrom by the diminished punctuation, and by the sinuation of the sides of the thorax near the front angles. The thorax is very slightly prominent in the middle quite near the front, and the prominent part is slightly emarginate: this thoracic development is, however, quite slight in all the specimens before me; and although it is variable, it seems to be unconnected with the sex of the individual.

Sind valley, Aug. 5-13, 1873, and Murree.

APHODIUS (Munich Cat.).

10.—Scarabæus subterraneus, Lin.

A single individual of this common European species was found on the road across the Pamir, 22nd April to 7th May 1874.

11.—Scarabæus granarius, L.

Of this species (which is now found in most parts of the world) a single individual was found on the road across the Pamir, 22nd April to 7th May 1874.

12.—APHODIUS ÆGER, n. sp.

Scarabæo granario, Lin., similis; oblongus, leviter convexus, nitidus, niger, elytris piceis vel fere nigris, pedibus rufis; clypeo medio emarginato, fronte fere mutica, prothorace subtiliter punctato, latera versus punctis majoribus crebribus, margine basali integro, angulis posterioribus sinuatis; elytris vix subtiliter striatis, striis indistincte crenatis, 7° et 8° ante apicem conjunctis, humeris longius ciliatis.

Long. 5-5\frac{1}{2} mm., lat. 2\frac{1}{2} mm.

Though rather similar to Scarabæus granarius, this species is readily distinguished from it by the sinuate hind angles of the thorax, and the conspicuous pale cilis of the sides of the

thorax and the basal portion of the elytra. The half dozen individuals before me show no sexual differences, and are perhaps all females. If this be the case, and the male should prove to have the head trituberculate, the species may then be satisfactorily placed in Erichson's Section E., for it has all the characters assigned to that section except the sexual ones. The clypeus is much emarginate and depressed in the middle in front, the sides of the emargination are rounded, the head is coarsely and closely punctured in front, more finely on the vertex, there is an excessively indistinct transverse line on the vertex, and on the middle of it a slight gibbosity or prominence of the surface, not worth calling a tubercle. The scutellum is rather narrow and parallel-sided, and is punctured except at the apex. The striæ of the elytra are quite as distinct at the apex as they are at the base: the sides of the wing cases bear numerous white setæ, which are long and conspicuous at the shoulders, behind which they become gradually shorter and disappear altogether from the apical half.

The specimens are marked "a," indicating that the exact locality is unknown; two small specimens were, however, found at Yangihissar in April 1871.

13.—APHODIUS PARVULUS, Har.

A single individual found in the Jhelam Valley, July 1873, agrees exactly with specimens from Abyssinia of this species recently described by Baron von Harold. I have in my own collection some specimens of this species from Ajmere.

14.—Aphodius kashmirensis, n. sp.

Niger, nitidus, sat convexus, pedibus rufo-piceis, antennis rufis clava fusca; clypeo anterius latius emarginato, et utrinque subacute prominulo; prothorace punctis magnis profundis sat numerosis, aliisque minutis, margine basali distincto; sulculo ante eum crenulato; elytris fortiter crenato-striatis, interstitiis subtilissime, sparsim punctatis.

Long. 6-6 $\frac{1}{2}$ mm., lat. $3\frac{1}{3}$ mm.

I have seen only two specimens of this species; they seem both to be females. I believe it is an Aphodius belonging to the Section E of Erichson, although the form of the front of the clypeus suggests rather that it may prove to be an Ammæcius when the mouth can be examined. It is almost as large as Scarabæus scybalarius, Fab., and somewhat similar in form to that species. The head bears no distinct tubercles, but has an obsolete curved elevation some distance behind the front, and on the middle of the vertex traces of an obsolete tubercle; its punctuation is moderately coarse and close, but irregular and rather indistinct. The sculpture of the thorax consists of very large and very small punctures, the basal margin is coarse and distinct, and the groove which precedes it is coarsely punctate so as to appear crenulate. The scutellum is small and coarsely punctured; the striæ of the elytra are deep quite to the apex, the middle ones being joined together, or not extending quite to the apex.

Dras, Kargil, and Leh, 15th August to 9th September 1873.

15.—APHODIUS TENUIMANUS, n. sp.

Aphodio melanosticto Er. persimilis; oblongus, subconvexus, nitidus, infuscato-testaceus, capite thoraceque nigris, hoc lateribus testaceis, elytris luteis, maculis dorsalibus 4 vel 5 strigaque sublaterali nigris, pedibus metasternoque medio testaceis; fronte medio vix tuberculato; tibiis anterioribus tenuibus, intus conspicue ciliatis.

Long. 5-6 mm.

This species is so similar to A. melanosticticus that it will be easily recognized by comparison with that species and by noticing the points in which it differs; these are that the base of the thorax is less sinuate on each side, makes in fact scarcely any deviation from a gentle rounding of the base; the front tibiæ are long and much more slender, and have the cilia on their inner edge more numerous. I have seen only three individuals; they show no sexual difference, so that I am not quite sure whether they are males or females; but I believe the former, and in that case an important point of difference will be found in the tubercles of the head, for these specimens show only a very obsolete central tubercle and no lateral ones.

The specimens are labelled "a," which indicates that the exact locality where Stoliczka procured them is unknown.

RHYSSEMUS (Munich Cat.).

16.—SCARABÆUS ASPER, Fab.

Jhelam Valley, July 1873.

This common European species is apparently plentiful in Northern India. The Indian specimens are usually a little smaller and more shining, and have the imbricate granulations on the elytra rather finer than European specimens, but I can find no characters of specific value to distinguish them. There are several allied, but as yet undescribed, species found in India.

GEOTRUPES (Munich Cat.).

17.—GEOTRUPES OBIENTALIS, Hope.

Murree, two specimens.

18.—Geotrupes foveatus, Har., var.

I refer two females of a Geotrupes from Sanju to the above European species, from which however they differ by being as large as G. stercorarius, Har., and by having the under-surface of a beautiful golden green colour, and clothed with a long rufous pubescence. These points would not justify me in considering the specimens as specifically distinct; moreover, I have great doubts whether G. foveatus is more than a small form, with diminished male distinctions, of G. stercorarius; and if this be so, it is probable that these Sanju individuals may really prove to be only a variety of the widely distributed and abundant Geotrupes

stercorarius, Har.; it will not, however, be possible to consider this conclusively established until the male has been found and examined.

19. Geotrupes kashmirensis, n. sp.

G. stercorario (Haroldi) persimilis, sed elytris longioribus; oblongo-ovalis, supra viridescenti-niger, nitidus, subtus purpureus, fulvo-pubescens; antennis piceo-rufis; mandibulis extus rotundatis, ad apicem leviter unisinuatis; elytris striis 14, minus distincte punctatis; abdomine etiam in medio punctato, sed illo minus pubescente; tibiarum posticarum carina tertia (ab apice) omnino carente.

Long. 24 mm., lat. 13 mm.

This species is closely allied to G. stercorarius, Harold, but is rather more elongate, so as to look at first sight like G. mutator, Er. It is readily distinguished, however, by the characters mentioned in the above diagnosis. The front tibiæ of the male have a carina-like swelling on their lower face, which bears a broad tooth below the knee, and after that is continued in a straight line, till it terminates in a sharply-elevated tooth opposite the third marginal tooth.

Dras, Kargil, or Leh, 15th August, 9th Septemer 1873. Two individuals.

Obs.—Jekel, in his classification of Geotrupes (Ann. Soc. Ent. Fr., 1865), gives as one of the most important characters of his sub-genus Anoplotrupes that there are only two entire carinæ on the posterior tibiæ, while in the subgenus Geotrupes (pr. d.) he states that there are three entire carinæ. In this, however, he was mistaken, for I find that in G. spiniger, Har., there are truly three entire carinæ; in G. spiniger, Har., the upper carina is less entire, for it suffers a slight double interruption, which is still more conspicuous in G. foveatus, Har., while in G. mutator, Er., only the lower half (or less) of this carina exists, and in G. kashmirensis it is entirely wanting. The species comprised by Jekel in his subgenus Anoplotrupes are but little concordant: thus his Anoplotrupes G. vernalis differs much more widely from Anoplotrupes G. sylvaticus than this does from Geotrupes (pr. d.); the sub-genus Anoplotrupes should therefore be entirely suppressed, for it is much less natural than the other subgenera established by M. Jekel in the able and satisfactory memoir to which I have alluded.

20.—Scarabæus sylvaticus, Panz., var.

The two individuals of this species differ considerably from any European specimens I have seen; they are proportionally narrower, on the upper side are of a black colour a little tinted with brassy, on the under side are entirely black, and the club of the antenna is black. These characters do not, however, seem to me to be of such a nature as to warrant their specific value.

Sind Valley.

TROX (Munich Cat.).

21.—TROX PROCERUS, Har.

Jhelam Valley, July 1873. A single individual.

HOPLIA (Munich Cat.).

22.—Hoplia concolor, n. sp.

Oblonga, sat elongata, ferruginea squamulis pallide griseis, magnis, fere æqualiter cestita; tarsorum posticorum unguiculo mutico.

Long. 8 mm., lat. 41 mm.

The head, except in front, is rather darker than the rest of the surface; the scales it bears are pale, sub-depressed, and narrower than on the rest of the surface, and on the front part where they are scanty are settle rather than scales. The thorax is of the same form as in *Melolontha graminicola*, Fab., but it is evenly clothed with closely set, coarse, pale ochre-coloured scales, and bears also a very few erect fine settle. The elytra are long, and are clothed in a similar manner to the thorax, the scales being very nearly circular in form. The pygidium, propygidium, and ventral segments are also closely covered with scales but little different from those of the elytra. The legs are of a uniform reddish colour scarcely different from the elytra.

The only individual I have seen is a female; it has the antennæ 9-jointed, and the front tibiæ with two moderately prominent teeth, and an emargination above the upper one; the front claw seems quite single and without tooth; the claw of the middle foot has a very minute division some distance before the apex, while the posterior claw seems to be quite simple.

The species seems to me more allied to *Melolontha graminicola*, Fab., than to any other I know; but it is of a more elongate and parallel form, of a paler and more uniform colour, and is clothed with larger scales.

Kogyar, 31st May to 2nd June 1874.

SERICA (Munich Cat.).

23.—Serica Læticula, n. sp.

Obovata, convexa, nitidula, tantum abdomine opaco, lata, brunneo-ferruginea; prothorace fortiter punctato, elytris seriatim punctatis, seriebus leviter depressis, interstitiis planis, tantum juxta series punctatis; antennis 10-articulatis, flabelli articulo primo apice emarginato.

Long. 8½ mm., lat. 4 mm.

Similar in form to Serica mutata, except that it is much broader and only a little longer; the whole of the upper surface quite shining; clypeus emarginate in front, the whole of its anterior part coarsely and rugosely punctured, the hinder part sparingly but distinctly punctured. Thorax strongly transverse, evenly and coarsely punctured. Secutellum coarsely and closely punctured, with a smooth longitudinal space along the middle. Elytra with rows of punctures, which are so little depressed as scarcely to amount to striæ; the interstices hardly at all convex, and their punctures confined to the neighbourhood of the rows of punctures. Pygidium rather obsoletely punctured, shining; outer edge of hind coxa scarcely twice as long as the outer edge of metasternum, its hind margin slightly sinuate near the outer angle, which is hardly at all rounded; the punctures of the hind coxæ coarse and occilate.

LACHNOSTERNA (Munich Cat.).

24.—LACHNOSTERNA STRIDULANS, n. sp.

Testacea, capite, thorace, scutelloque fere ferrugineis, supra opaca, opalescens, subtus abdomine inflato nitido, pectore minus dense villoso; capite brevi, fortiter punctato; prothorace sparsissime punctato, fortiter transverso, margine laterali integro, sinuato, angulis posterioribus obtusis; elytris sat crebre parum profunde punctatis.

Long, 15½ mm., lat., 8 mm.

Head very short; margin of clypeus strongly reflexed, not emarginate; the transverse suture nearly twice as distant from the vertex as from the clypeal margin; the part of the head behind the suture rather sparingly punctured with punctures of different sizes, and bearing some long erect setæ; in front of the suture the punctures are deep, and are closer together, and all of one size, and there are no setæ. The thorax is very short, the sides not greatly dilated in the middle, the hind angles obtuse, but not departing greatly from right angles; the punctuation is distant and not coarse. The scutellum is rather sparingly punctured. The elytra are finely and irregularly, and not closely, punctured, and have only indistinct traces of longitudinal impunctate spaces. The propygidium is densely and finely punctured across the middle, but coarsely punctured behind; the pygidium is shining, and coarsely punctured. The membranous border of the elytra is very small and indistinct; the epipleural line is sharply elevated in its anterior portion, and when examined with a powerful lens it is seen to be densely and finely crenulate, from the middle of the sternum to the hind margin of the first ventral segment; by strongly flexing the hind femur, and rubbing it against this line, a considerable stridulation is produced.

Murree. A single individual.

Obs.—I am acquainted with only one other species closely allied to this; it is as yet undescribed, and is labelled in my collection "Ancylonycha pulvinosa, Reiche, India bor." It has the same appearance as L. stridulans, and has, like it, the epipleural line finely crenulated, but it differs considerably in the structure of the antennæ and of the claws; in Lachnosterna stridulans the flabellum of the antennæ is rather long, and composed of five joints; the first leaf is, however, very short, not half the length of the second, which itself is a good deal shorter than the three following ones; the claws are divided into two rather divergent portions of equal length. In the undescribed Reicheian species, the flabellum is short and composed only of three joints, and the claws of the feet are strongly dentate in the middle.

I add a short diagnosis of this insect:

LACHNOSTERNA PULVINOSA, n. sp.

Ferruginea, elytris dilutioribus, supra opaca, opalescens, subtus abdomine inflato, medio nitido, pectore parcius villoso; capite brevi, dense rufoso-punctato; prothorace sparsim punctato, punctis in margine anteriori magnis, fortiter transverso, lateribus valde sinuatis, in medio perdilatatis, angulis posterioribus valde obtusis, margine laterali subcrenulato; elytris sat crebre subtiliter punctatis.

Long. 16 mm.

25.—LACHNOSTERNA STOLICZKÆ, n. sp.

Oblonga, picea, nitida, pectore prosternoque griseo-villosis; capite haud parvo, clypeo fortiter reflexo-marginato, anterius vix emarginato; prothorace lateribus rotundatis, anterius quam posterius magis angustato, crebrius punctato, angulis posterioribus obtusis, margine laterali serrato; elytris crebrius fortiter punctatis, areis longitudinalibus parcius punctatis, haud argute elevatis.

Long. 15-16 mm., lat. 8 mm.

Head coarsely, but not rugosely, punctured, the clypeal margin greatly reflexed, the clypeus of the same breadth as the vertex, so that its elevated side margin is continued directly backwards in a straight line along the inner margin of the eye as an elevated space which extends as far as the portion of the head which forms the summit of the vertex; this upper part of the vertex is placed on a different plane from the middle part of the head and is impunctate except at the sides; there is no trace of any transverse carina. The membranous border of the elytra is very fine, but is distinct throughout.

The male has the flabellum of the antennæ a little longer than the female; in this latter sex the front tibiæ are evidently tridentate, while in the male they are only bidentate, and even the upper of the two teeth is not very distinct: the tooth of the claws is placed quite near the base in the male, but in the female it is rather nearer the middle of the claw, and is also a little larger. The species will be readily identified by the structure of the head and the claws. I have only one allied species in my collection; it is also from Northern India and is still undescribed.

Murree. Three individuals.

Brahmina (Munich Cat.).

26.—Brahmina calva, Blanchard.

Murree. A single individual.

RHIZOTROGUS (Munich Cat.).

27.—RHIZOTROGUS BILOBUS, n. sp.

Antennis 10-articulatis; oblongus, colore variabilis, ferrugineus vel piceus, sub-opacus, prothorace in medio sæpius nitido, ad latera albido-pruinoso; clypeo in medio profunde emarginato; prothoracis lateribus anterius crenulatis; elytris indistincte et inequaliter punctatis, lateribus dense ciliatis; pygidio ventreque pruinosis; pectore prosternoque dense villosis.

Long. $17\frac{1}{2}$ —20 mm., lat. 9-10 mm.

The head is small and very densely punctured; the clypeal suture consists of an extremely fine elevated line, the part in front of which is reddish, while behind the line the colour approaches black; the clypeus is divided into two lobes by a very deep medial incision. The thorax is without hairs on its upper surface; it is moderately closely, and hardly coarsely, punctured; it is much narrowed towards the front, and the anterior angles are not in the least prominent; the hinder angles are rounded and a little obtuse. The elytra are dull, and their surface is uneven, from some longitudinal elevations; their punctuation is irregular and

indistinct; they bear no hairs, but under a good lens are seen to possess some extremely short setæ; and their sides are densely ciliate. The pygidium is of a whitish colour, that is to say, the surface is very pruinose; it is finely punctured.

The male has the flabellum of the antennæ twice as long as the female, it being quite as long as joints 2 to 7 together; the front tibiæ do not show much difference in the sexes; they are rather stout and distinctly tridentate. The ventral segments in the male are not impressed along the middle, but are a little flattened, and almost free from punctuation.

The species is remarkable on account of the divided front of the head; a trans-Caucasian species which I received some time ago from M. Deyrolle as R. porosus agrees with it in this respect, but has the ventral segments densely pubescent, while in R. bilobus these same parts are bare. The species is variable in colour and size.

Yangihissar, April 1874. About twenty individuals, mostly much injured, and probably picked up dead. Also Kogyar, 31st May to 2nd June.

RHINYPTIA (Munich Cat.).

28.—RHINYPTIA DORSALIS, Burm.

Jhelam Valley, July 1873. Two specimens.

Anomala (Munich Cat.).

29.—Anomala striolata, Blanchard.

A single individual of an Anomala found at Murree differs from the description of Blanchard's A. striolata only by some details of colour, the most important of which is that the under-surface and legs are purple. Specimens in my own collection, labelled India, are probably conspecific with the Murree individual, though they do not quite agree in all details. In a genus like Anomala, where many species are so extremely variable in colour, it is not advisable to make new specific names on the evidence of such slight differences.

30.—Anomala* stoliczkæ, n. sp.

Ovata, minus convexa, lætissime viridis, nitidissima, elytris subopacis, antennis nigris; capite thoraceque lævigatis; elytris seriebus duplicatis punctorum tribus, et inter eas sat crebre punctatis.

Long. 12\frac{1}{2} mm., lat. 6\frac{1}{2} mm.

Of a very beautiful, brilliant, golden-green colour, with the elytra pure green and but little shining. The thorax is narrowed towards the front, with the anterior angles acute and prominent, the posterior ones well marked and slightly obtuse; the raised margin is very distinct, and is wanting only from the middle both in front and behind. The scutellum is impunctate and shining, like the thorax. The punctuation of the elytra is rather fine and scanty; they have some irregular and unsymmetrical black spots, which are probably only accidental. The propygidium is rugose; the pygidium is rugose at the base, and is elsewhere

Genus Callistethus, Blanchd.

sparingly punctured, but close to the sides there is also a narrow rugose band. The metasternum, except in the middle, and the hind coxe are coarsely punctured, and sparingly pubescent; the ventral segments are smooth in the middle and very shining; at the sides each has some coarse punctuation bearing a row of coarse setæ; the side of each segment at the base is purple. The legs are brilliant green, with the tarsi approaching to purple. Of this beautiful species a single individual was found at Murree.

POPILIA (Munich Cat.).

31.—Popilia cyanea, Hope.

Sind Valley, August 1873. A dozen individuals.

ADORETUS (Munich Cat.).

32.—Adoretus plagiatus, Burm.

The species of Adoretus at the present moment are excessively difficult to name with certainty: the specimens I here call Δ . plagiatus agree with Burmeister's description, but are four-and-a-half or five lines long, instead of three-and-a-half. The species may readily be distinguished from Δ . nudiusculus by the deeply serrate margins of the labrum; the two species are also a little different in colour, punctuation, and pubescence.

Jhelam Valley, July 1873.

33.—Adoretus nudiusculus, n. sp.

Testaceus, clypeo ferrugineo, fronte fusca, nitidula, parcius brevissimeque setosus; prothorace fortiter punctato, lateribus subcrenulatis, angulis posterioribus omnino rotundatis; elytris obsolete costatis, fortiter punctatis.

Long. 91 mm., lat. 51 mm.

A short and moderately broad species. Head moderately large, rather coarsely and closely, but not deeply, punctured. Labrum with narrow, but elongate, appendage, which is very finely carinate along the middle; the margins of the labrum are only indistinctly crenulate, the basal portion is punctate, and bears short hairs. The thorax has the hinder angles much rounded, the basal margins fine, but quite even throughout, being neither more nor less strongly elevated at the sides than in the middle; the side margin is indistinctly crenulate; the surface is rather coarsely, but not closely, punctured, the punctures are evenly distributed, being about as numerous and distinct on the middle as at the sides. The elytra have three indistinct longitudinal spaces free from punctures, and between these are moderately coarsely punctured.

This species is remarkable from the very slight development of the pubescence: it is perhaps more nearly allied to A. nigrifrons than to any other species, but it is much smaller, and the pubescence is much slighter. The only individual I have seen is no doubt a female; it has the legs quite short, the anterior tibiæ stout and tridentate.

Jhelam Valley, July 1873. A single individual.

34.—Adoretus simplex, n. sp.

Angustulus, parallelus, sat elongatus, testaceus, densius albidosetosus, subopacus, subtus parcius setosus, nitidus; clypeo rotundato, in medio alte reflexo; prothorace basi æqualiter et tenuiter marginato, angulis posterioribus rotundatis; elytris obsoletissime costatis, crebrius punctatis.

Long. 10 mm., lat. 4½ mm.

The labrum is shining, the basal part is rather large, and has a series of small tubercles arranged at a distance from the rather deeply serrate edge; the appendicular portion is broad, but is not distinctly carinate along the middle. The punctuation of the head seems close, but is quite obscured by the conspicuous depressed white setæ or hairs. The thorax is not very short (for the genus Adoretus); the raised margin is fine, and is not more strongly elevated at the base near the side than elsewhere; the hinder angles are rounded, but not broadly so; its punctuation is only moderately close and coarse. The elytra are rather closely punctured, and have only indistinct longitudinal costæ.

The specimen described is no doubt a male; it has the legs moderately long, and the anterior tibize tridentate.

I am unable to point out any near described ally for this species, although I have several closely allied undescribed Indian species in my collection.

Jhelam Valley, July 1873.

PENTODON (Munich Cat.).

35.—Pentodon truncatus, n. sp.

Nigro-piceus, nitidus, capite anterius truncato, angulis inter se distantibus tuberculo longitudinali acuto, fronte in medio tuberculis duobus minutis; prothorace fortiter punctato, basi ad angulos posteriores tenuiter marginato; elytris sat crebre haud profund punctatis, seriebus duplicatis haud distinctis.

Long. 19—20 mm., lat. 12 mm.

Head finely and densely rugose, in the middle with two minute tubercles, in front truncate and not margined; the unmargined part terminated on each side by a distinct longitudinal tubercular elevation; lateral portions of head with a thick elevated margin. Thorax with the hinder angles completely rounded, and the fine lateral margin continued along the base till the commencement of the slight sinuation on each side; the surface is shining; the punctuation is moderately fine and not close about the base and the middle; it is closer about the front and sides, and quite dense and coarse towards the anterior angles. The sutural stria of the elytra is very distinct, but only indistinctly punctured; of the three double longitudinal series of the elytra only the inner one is distinct; the punctuation of the elytra is moderately close, the surface completely shining. The pygidium is sparingly punctured, but is rugose at each side angle, and there are some obscure, fine, transverse rugæ quite at the base.

The species is similar in form and appearance to the European Scarabæus punctatus, but it is smaller; the punctures of the elytra are more numerous and finer, and it is rendered very distinct by the distant tubercles of the front margin of the head.

Kogyar, 31st May to 2nd June 1874. Two individuals, which are no doubt both males.

36.—Pentodon pumilus, n. sp.

Nigro-piceus, nitidus, capite anterius truncato, angulis inter se distantibus tuberculo longitudinali acuto, fronte in medio tuberculis duobus minutis; prothorace fortiter punctato, basi ad angulos posteriores tenuiter marginato; elytris fere dense, subrugulose punctatis, seriebus duplicatis haud distinctis.

Long. $14\frac{1}{9}$ — $15\frac{1}{9}$, lat. 9—10 mm.

This species is so extremely similar to *P. truncatus* that a repetition of the description of that species is unnecessary. *P. pumilus* is, however, scarcely half so large as *P. truncatus*, and has the thorax rather shorter and the punctuation of the upper surface closer. The female has the teeth of the front tibiæ much longer than the male, and the sculpture of the pygidium more diminished.

Kogyar, 31st May to 2nd June 1874. Two individuals.

ORCYTES (Munich Cat.).

37.—SCARABÆUS NASICORNIS, Linn.

Yangihissar, April; Kogyar, 31st May to 2nd June 1874.

38.—ORYCTES GRYPUS, Ill.

Jhelam Valley, July 1873. A single male.

CETONIIDÆ.

BY OLIVER JANSON.

1.—CLINTERIA CONFINIS, Hope.

A single specimen of this common Indian species was taken in the Jhelam Valley in July 1873.

2.—CETONIA ORIENTALIS, G. & P.

Dr. Schaum has regarded this species as identical with *C. aerata*, Er., and as only a variety of *C. speculifera*, Swartz; they are, however, three quite distinct species, and have been indicated as such by Blanchard. In the Munich Catalogue aerata is given as a synonym under speculifera.

Two specimens in the collection were taken at Kogyar between 31st May and 2nd June 1874.

3.—CETONIA DALMANNI, G. & P.

Three specimens of this variable species were taken at Murree; it appears to be generally distributed over the central and northern parts of India.

HETEROMERA.

By FREDERICK BATES.

Family—TENEBRIONIDÆ.

Sub-Family—TENTYRIINÆ.

Group—GNATHOSIIDES.

SYACHIS, n. g.

Intermediate between Ascelosodis and Capnisa. At once to be separated from the former by its having the outer apical angle of the anterior tibize not dentiform, and from the latter by its having the antennary orbits more convex and more rounded in front; prothorax wider and more deeply emarginate in front, the sides rounded and decidedly contracted behind; elytra shining black and more or less strongly punctured, the epipleurze being sometimes muricately punctured; prosternal process horizontal and pointed behind; mesosternum declivous and concave in front.

The lateral teeth of the submentum are long and pointed: the mentum is strongly transverse, almost flat, hexagonal, the apex triangulately notched in the middle, coarsely punctured: the last joint of the labial palpi is robust, more or less semi-oval (broadly truncated at the apex): the outer lobe of the maxillæ is furnished with a long, curved claw; the last joint of the palpi is elongate-oval and broadly obliquely truncated at apex (picicornis), or triangulate with the apex a little oblique (himalaicus): the mandibles are stout, notched at apex, and are furnished on their upper edge, before the apex, with a stout horizontal tooth, which clasps the sides of the labrum, and is sub-acute (himalaicus), or obtuse (picicornis), and is always, more strongly developed on the right mandible than the left: the head is short, robust, more or less wrinkled above the eyes, almost obsoletely so in picicornis; throat transversely impressed: epistoma more or less prominent, more or less distinct from the antennary orbits, rounded or truncated in front, and is, in himalaicus, hollowed out at the sides, leaving the mandibles almost completely exposed: the antennæ are short, slender, a little thickened apically joint 3 much longer than 2 or 4: the prothorax is strongly transverse, convex, decidedly wider in front than the head, sides more or less rounded, apex more or less deeply emarginate, base more or less feebly sinuately rounded: elytra convex, more or less abruptly declivous behind, wider at base than base of prothorax: epipleuræ moderately broad, the fold expanding at the base and reaching the humeral angle, narrowly, but very distinctly, attaining the apex: tibiæ hispid, or spinulose, elongate-triangulate, the anterior most strongly so and finely denticulate on the outer edge, the apex simple; tarsi sparsely ciliate, with short spiniform hairs, the first joint of the posterior as long as the last: intercoxal process moderate, a little contracted anteriorly and broadly rounded at apex: prosternal process horizontal, a little produced and pointed behind: mesosternum declivous and a little concave in front: episterna of metathorax slightly curvedly contracted posteriorly.

I have failed to discover any really distinctive sexual characters in this and cognate genera of the old world; there are differences of degree in the punctuation, &c., of the abdomen,

which may be sexual, the more strongly punctured, &c., being the male. In the North American representatives of these genera the male is distinguished by having on the first ventral segment a round patch of short, silky-golden hairs; at least it is so in the genera Triorophus and Stibia. To this latter genus Dr. Horn denies the presence of a tooth on the upper surface of the mandible. This is evidently a lapsus, as so keen and accurate an observer could not have failed to detect it. With some remarkable exceptions (hereafter noticed), I have found this tooth existent in all the numerous genera I have dissected, and, I believe, it will be found all but universally present in this sub-family.

SYACHIS HIMALAICUS.

Black, moderately shining; underside and legs reddish-brown, antennæ and palpi paler: labrum entire in front: head rather strongly but not closely punctured; strongly wrinkled above the eyes, the wrinkles extending nearly to the crown; epistoma prominent, strongly separated from the antennary orbits, slightly hollowed out at the sides, broad and truncated at apex; superior tooth of right mandible sub-acute: prothorax transverse, a little narrower in front than behind, subangulately rounded at the sides, front angles prominent and acute; strongly and rather closely punctured at the sides, more feebly so on the middle: elytra briefly oval, convex, abruptly declivous behind, produced at apex, shoulders rounded; the surface a little uneven, covered, but not densely, with rather large but more or less shallow punctures, the epipleuræ rather strongly muricately punctured: underside rather densely covered with large rounded punctures: flanks of prothorax very coarsely longitudinally rugose and confluently punctured: epipleural fold more or less, but never strongly, muricately punctured.

Length 3½ to 4 lines. Dras, Kargil, and Leh.

SYACHIS PICICORNIS.

Black, moderately shining; underside of body black, legs and antennæ piceous: labrum feebly emarginate in front: head moderately, not closely, and uniformly punctured, not wrinkled at the base, the punctuation a little coarser and confluent above the eyes; epistoma feebly separated from the antennary orbits, being almost continuous with them, broadly rounded in front; superior tooth of right mandible obtuse: prothorax narrower in front and more feebly emarginate than in the preceding, front angle not so prominent; sides rounded behind the middle; very finely and sparsely punctured on the disc, more strongly and closely so at the sides: elytra oblong, shoulders not rounded, gently declivous behind, the punctuation feebler than in the preceding, the epipleuræ not muricately punctured: epipleural fold smooth; punctuation of underside much feebler and less dense than in the preceding.

Length 3½ to 4 lines. Dras, Kargil, and Leh.

Ascelosodis, Redtenb., Reis. Novar., p. 117.

Prothorax and elytra more or less ciliate at the sides.

Base of prothorax not lobed in the middle.

Elytra densely rugose punctate.

COLEOPTERA.

Head and prothorax with mixed punctures, i.e., there are minute punctures scattered between the regular punctuation.

Antennary orbits feebly separated from sides of epistoma: punctuation on back of elytra not muricate—assimilis, n.s.

Antennary orbits strongly separated from sides of epistoma: punctuation on back of elytra finely muricate—ciliatus, n.s.

Head and prothorax simply punctured—serripes, Redtenb.

Elytra thinly and feebly rugose punctate.

Sides of epistoma well separated from antennary orbits—concinnus, n.s.

Sides of epistoma nearly continuous with antennary orbits—Haagi, n.s.*

Base of prothorax distinctly broadly lobed in the middle—grandis, n.s.

Prothorax and elytra not at all ciliate at the sides—intermedius, n.s.

ASCELOSODIS SERRIPES, Redtenb.

The series of examples of this species in the collection were taken by Dr. Stoliczka at Yanktze, Chagra, and Pankong Valley. Specimens have been very kindly compared with the type by Dr. Rogenhofer of the Imperial Museum of Vienna.

ASCELOSODIS ASSIMILIS.

Very close to A. serripes, Redtenb., from which it differs in having the head distinctly wrinkled above the eyes; the punctuation on the head and prothorax mixed, that is, there are scattered minute punctures on the spaces between the larger punctures; the hind angles of the prothorax and the humeral angles of the elytra are distinct.

Length 23 to 31 lines.

Dras, Kargil, and Leh.

These differences are rather slight, but they are constant in a large series of examples.

ASCELOSODIS CILIATUS.

Very near to the preceding, and perhaps only an extreme variety of it: it differs by its larger size, more prominent epistoma, the antennary orbits being separated from it and from the front by a deeply impressed line; the elytra entirely, though much more coarsely on the sides and epipleuræ muricate punctate, and the hairs that fringe the sides of the prothorax and elytra much larger and fuller.

Length 4 lines.

Dras, Kargil, and Leh. A single example.

Ascelosodis concinnus.

Dark brown, shining; underside reddish-brown; legs, antennæ, palpi, labrum, and front half of the epistoma, red: head finely but not closely punctured, feebly wrinkled above the

* This species was not found by Dr. Stoliczka. A single example exists in Dr. Haag's collection.

eyes: prothorax strongly transverse, front angles prominent, sides gradually expanding from apex to behind the middle, thence strongly rounded to the base; hind angles very open and, being depressed, appearing to be broadly rounded (or obsolete) when viewed from above; sparsely punctured on the disc, more closely so at the sides; side margins reflexed: scutellum distinct: elytra somewhat oval, squarely truncated at base, humeral angle very open; not densely, and but little rugosely, punctured, the epipleuræ muricately punctured, sides fringed with hairs, longest at the shoulders.

Length 3 to $3\frac{1}{4}$ lines.

Pamir, between Sirikol and Panga.

ASCELOSODIS GRANDIS.

Broadly ovate, convex, black somewhat nitid, underside of body black, legs piceous, tarsi and antennæ paler: head strongly wrinkled above the eyes: prothorax densely punctured, confluently so at the sides, base considerably wider than apex, front angles not prominent; sides gradually curvedly expanded to near the base, whence they curve inwards to the hind angles, which are very obtuse; base rather strongly sinuate at each side, broadly lobed in the middle: elytra convex, humeral angles distinct; rather closely and regularly and slightly rugosely punctured, the epipleuræ strongly muricately punctured: margins ciliated.

Length 5½ lines.

Dras, Kargil, and Leh.

ASCELOSODIS INTERMEDIUS.

Ovate, black, a little shining, legs pitchy brown, antennæ and palpi rufescent: labrum distinctly notched in the middle of fore margin and shortly ciliate: head rugosely punctured, most strongly so above the eyes: prothorax rounded at the sides, more contracted in front than behind; apex not deeply emarginate, front angles not produced; base feebly sinuate, hind angles distinct but obtuse; finely not densely and somewhat uniformly punctured, the punctures largest and slightly rugose at the sides: elytra broadest behind the middle, uniformly but not closely or deeply punctured, and faintly rugulose: epipleuræ muricately punctured; sides not ciliate; base feebly emarginate at the middle, thence sloping to the humeral angle at each side; humeral angle distinct but open.

Length nearly 4 lines.

Dras, Kargil, and Leh.

By its habit, style of punctuation, and non-ciliated sides of prothorax and elytra, this species approaches the genus Syachis.

ANATOLICA MONTIVAGA.

Habit of genus Colposcelis. Head and prothorax finely, not closely, but uniformly, punctured: epistoma rather prominent, a little hollowed out at the sides, broadly truncated in front; mandibles without superior tooth: prothorax as long as broad, contracted behind, widest anteriorly, apex feebly emarginate, front angles depressed and rounded; hind angles very open, not prominent; basal margin gradually sloping downwards at each side from the angle to the centre, the point opposite the scutellum is consequently on a lower level than the

angles: elytra more or less elongated and acuminate behind, sutural region more or less depressed; minutely, sparsely, and irregularly punctulate; smooth, or slightly irregularly wrinkled, or feebly costate; base rather strongly arcuately emarginate, but with the fold entire and continuous from the humeral angle to the scutellum: humeral angle rather strongly produced: flanks of prothorax and prosternum finely and not closely punctured, the latter very strongly thickened at each side between the coxæ; base of mesosternum very strongly and densely punctured; base of metasternum and of first abdominal segment rather coarsely, but not closely, punctured, the rest of their surface, as well as the other abdominal segments, very finely and remotely punctured.

Length $4\frac{1}{2}$ to $5\frac{3}{4}$ lines.

Yangihissar, Kogyar.

This species has completely the aspect, and many of the characters, of the genus Colposcelis. The third joint of the antennæ, however, is but little longer than the second; the antennary orbits are not separated from the epistoma by a broad, deep impression, this latter being less prominent, and exhibiting no tendency to become umbonate, as it does in Colposcelis. The form, &c., of the eye is completely that of Colposcelis. The prothorax is as long as it is broad in its widest part, and is slightly angulately rounded at the base. The elytra are as deeply emarginate at the base, and the humeral angle is as strongly produced, as in Colposcelis. The middle and hind tibiæ are distinctly hispid, the latter being also elongated and feebly flexuous in the 3.

It is in the genus Anatolica that we find species with mandibles edentate on their upper margin: in some species the mandibles are thick, and provided with a distinct tooth above, which is always the most developed in the right mandible: in others (in both sexes) they are more slender, and the tooth is either but faintly indicated, or is entirely wanting: the present species is in this latter case.

MICRODERA LATICOLLIS.

Approaching M. gracilis, Esch., in habit, but more robust. Black, shining: head moderately, prothorax closely, elytra sparsely and minutely, punctured. Prothorax moderately convex, transverse, widest before the middle, well rounded at the sides, strongly contracted behind to the base; base broadly margined, rounded, a little sinuate at each side; apex feebly sub-sinuately emarginate; all the angles depressed, the anterior rounded, the posterior obtuse: elytra elongate, oval, and rather sharply produced at apex; epipleural fold uninterruptedly continued round the shoulders: the parapleuræ entirely, the sides of all the sterna and of the abdomen coarsely, closely, and confluently punctured, finely and remotely so on their middle.

Length 51 lines.

Kashgar, Yangihissar, Kogyar.

MICRODERA PARVICOLLIS.

In habit approaching M. convexa, Tausch, but prothorax more rounded anteriorly, broadest before the middle, thence gradually contracted to the base, which is much more strongly margined, and the elytra more broadly oval.

Head, prothorax, and elytra, minutely and sparsely punctulate: prothorax nearly as long as broad, sides well rounded anteriorly, thence rather strongly contracted to the base; base slightly rounded, its margin broad and very convex; apex very feebly emarginate; all the angles depressed and obtuse: elytra oval, the apex rather strongly produced: epipleural fold uninterruptedly continued round the shoulders: inner side of the flanks of the prothorax, and the prosternum, rugosely punctured; sides of metasternum, and of the two first abdominal segments, with a few coarse punctures; rest of the abdomen smooth.

Length 42 lines.

Kogyar.

Sub-Family—AKISINÆ.

CYPHOGENIA PLANA.

Narrow, elongate, flattened above; black, more or less obscure. Mentum notched (but not deeply) in middle of fore margin, disc more or less plane. Head-rhomboidal, more or less sparsely punctured; epistoma transversely convex, widely and sub-triangulately emarginate in front, completely exposing the labrum and its attachment, front angles more or less acute; front transversely, sometimes triangulately, depressed; supraorbital ridge more or less distinct; cheeks (immediately behind the eyes) prominent and coarsely rugosely punctured. Prothorax quadrate, apex wider than base, front angles produced, sub-acute; sides more or less feebly sinuous (sometimes a little angulate at the middle), and with a narrowish flattened margin; base squarely truncated, or feebly—sometimes sinuately—emarginate; hind angles more or less produced (scarcely outwardly directed) and obtuse; disc irregularly foveate, more or less finely and sparsely punctured, the punctuation stronger at the sides. Elytra elongate-oval, moderately produced and rounded at apex, faintly (sometimes obsoletely) irregularly and minutely muricate punctate, the unpunctured intervals more or less faintly reticulately rugulose; keeled from behind the shoulders to the apex; this keel is not completely marginal, being placed a little within the outer edge, which is rounded, the epipleura being strongly inflexed. Last three or four joints of antennæ usually bright ferruginous, the last acutely pointed at apex.

Length 7 to 9½ lines.

Dras, Kargil, Leh, and Pankong Valley.

CYPHOGENIA HUMERALIS.

In habit approaching *C. aurita*, Pall. Black, obscure; mentum very deeply notched in front, the disc very convex. Head and prothorax very finely and dispersedly punctured, the former with a longitudinal elevated line down the middle, and depressed at each side; supraorbital carina very distinct: epistoma widely emarginate in front in the s, more deeply (and sub-angulately) in the 2; front angles broadly rounded. Prothorax transverse, disc convex, median line lightly impressed, and with a short transverse depression across the middle near the base, apex broadly emarginate, front angles not produced, but somewhat acute; base feebly emarginate, hind angles acute and outwardly directed; sides well rounded anteriorly, rather broadly margined, a little reflexed, and finely transversely rugulose. Elytra depressed, gently declivous behind, the apex rather strongly produced and narrowly rounded; widest behind the middle; obsoletely punctured, and showing some faint smooth reticulations; shoul-

ders keeled, this keel slightly obliquely extending down the elytron, but never for more than one-fourth its length. The & is smaller than the ?, and has the abdomen much more distinctly punctured. Antennæ with joints 9-10 shorter, triangulate, 11 rather small, acutely pointed at apex.

Length 10 to 12 lines. Yangihissar.

Sub-Family—BLAPTINÆ.

BLAPS STOLICZKANA.

Approaching B. mortisaga, Linn., in habit. Elongate, depressed, acuminate behind, black, underside shining black, antennæ and palpi pitchy brown; labrum rufescent, coarsely punctured: head more or less coarsely (never densely) punctured, the base densely and finely muricate, becoming granulous: epistoma trapeziform, widely and feebly emarginate in front: prothorax slightly transverse, sides rounded anteriorly, gradually (sometimes feebly sinuately) contracted posteriorly; base closely applied to the elytra, feebly sinuate and wider than the apex, which is broadly emarginate; front angles rather broadly rounded; hind angles obtuse. slightly overlapping the shoulders, more or less coarsely punctured; the punctures more crowded and more or less reticulately confluent at the sides, and with scattered very minute punctures on the interspaces; sides feebly guttered: elytra at base a little wider than base of prothorax; sides feebly rounded, attenuate behind, the apex gradually produced forming a mucro, which, in the &, extends beyond the abdomen by a length equal to the fourth ventral segment; depressed, more or less gently declivous behind; more or less densely confusedly covered with smallish, somewhat shining tubercles, which, except at the base, are flattened. generally acute behind, and here and there run together, forming irregular, more or less transverse, elevated rugosities: flanks of prothorax more or less strongly undulately strigulose. and, as well as the prosternum, parapleuræ, &c., sparsely minutely tuberculate: three first abdominal segments longitudinally rugose at the sides, and transversely rugose on the middle.

Length 81 to 10 lines.

Pamir, between Sirikol and Panga.

BLAPS INDICOLA.

Habit of Q, B. mortisaga, Linn. Dull black; underside and legs shining black; antennæ, labrum, and palpi brownish black: head and prothorax very finely and not densely punctured; the latter sub-quadrate, feebly but regularly convex, widest before the middle, strongly contracted in front, more gradually behind; sides slightly sinuous before the hind angles, very narrowly channelled; front angles narrowly rounded, the hinder nearly forming right angles, and reposing on the shoulders; base feebly sinuously emarginate: elytra not wider at base than base of prothorax, elongate, acuminate behind; sides feebly expanded to behind the middle, very gently declivous behind, the apex gradually produced, forming a distinct but simple mucro, which is rather densely punctured; uniformly minutely, but not densely, granulose-punctate, a little stronger on the epipleuræ and at the base, which is also rugulose.

Length 12 lines. Sind Valley.

BLAPS PERLONGA.

Elongate, slender, acuminate behind, black, obscure: head and prothorax finely and not closely punctured; the latter gently convex, but little (not half a millim.) wider than long; sides gently evenly rounded and very finely margined; base but little wider than apex; base and apex truncated; front angles rounded, the hinder forming right angles: elytra elongate, widest behind the middle, attenuate behind, the apex produced, forming a distinct but not elongate mucro, very gradually declivous behind, and with distinct trace of a short costa within the apex; finely, uniformly, and not closely muricate-punctate, and faintly transversely rugolose.

Legs very long, slender. Length 10 lines. Yanktze to Chagra, Pankong Valley.

BLAPS LADAKENSIS.

Black, elytra a little shining; oblong-ovate: head rather closely punctured: prothorax decidedly broader at base than at apex, transverse; sides well rounded anteriorly, slightly sinuously contracted posteriorly; apex feebly emarginate, with the angles rounded; base feebly sinuously truncate, with the angles somewhat obtuse; but little convex; rather finely and not densely punctured: elytra somewhat depressed on the back, not wider at base than base of prothorax; sides gradually moderately rounded, somewhat rapidly declivous behind; apex a little produced, but not mucronate; disc irregularly, finely, and faintly muricately punctured, and intricately rugulose; apex and epipleuræ somewhat intricately covered with irregular flattened tubercles, which are pointed behind: legs and antennæ rather short and robust.

Length $7\frac{1}{2}$ to $8\frac{1}{4}$ lines. Yanktze to Chagra, Pankong Valley.

BLAPS KASHGARENSIS.

Elongate, black, elytra more or less nitid: head and prothorax finely remotely punctured, sometimes becoming obsoletely so on the latter: prothorax regularly convex; sides well rounded anteriorly, very gradually (and but little) contracted posteriorly, finely margined; base decidedly wider than apex, very feebly sinuately truncated; hind angles somewhat obtuse; apex feebly emarginate, the angles well rounded; median line faintly impressed on the disc: elytra more or less elongate-ovate, somewhat rapidly declivous behind; apex produced and terminating in a very distinct, pointed mucro, which, in the &, extends beyond the abdomen by a length nearly equal to the third ventral segment; convex, a little depressed down the suture; very finely (sometimes almost obsoletely) seriate-punctate, the punctures simple, the intervals also finely punctured, and more or less feebly irregularly convex. Legs rather elongate. Hind margin of first ventral segment in the & a little emarginate at each side, leaving in the centre a more or less triangulate plate, and with a villose tuft of rufous hairs; it is also more or less (sometimes very strongly) coarsely transversely rugose (with traces of a callosity) in

the middle, and longitudinally rugose at the sides; the second and third segments being likewise rugose, but never so strongly.

The 2 is relatively broader than the 3, the legs not quite so long, the punctuation a little more distinct, the elytral mucro shorter, the abdomen finely rugose-punctate, hind margin of the first segment entire.

Length 9 to 13 lines. Kashgar, Yangihissar.

PROSODES TRISULCATA.

- ¿. Elongate, parallel, pitchy brown; approaching castaneous on the prothorax, legs, and antennæ. Head and prothorax finely, irregularly, and sparsely punctured, the punctuation a little stronger on the sides of the latter: prothorax gently convex, uneven at the sides, a well marked rounded fovea near the hind angle, and several faint irregular foveate depressions on the disc; lateral margins faintly rugulose; sides slightly rounded anteriorly, gradually and but little contracted posteriorly, widest before the middle; base truncate, hind angles forming right angles; apex very feebly emarginate, the angles depressed and narrowly rounded: elytra not wider at base than base of prothorax, elongate, sub-parallel, depressed on the back, gradually attenuated, and gently declivous, behind, margins reflexed at the apex; on each elytron two dorsal, broad, nearly smooth, costæ; the suture is also thickened; the lateral margin is likewise somewhat costiform; the intervals, which are broader than the costæ, form three shallow furrows, which are somewhat densely irregularly granulous; both furrows and costæ become effaced at the base: the epipleuræ are very broad, vertical, smooth and shining; the fold is also smooth. broad at base (where it attains the humeral angle), it gradually, obliquely, and sinuously narrows to the apex, and has a slightly flexuous elevated line running down its centre: underside pitchy nitid: abdomen feebly longitudinally rugose at the sides: prosternal process terminating behind in a small reflexed mucro: legs rather slender; femora finely muricately punctured; tibiæ more strongly and closely so, and shortly hispid; hind tibiæ feebly flexuous; first joint of hind tarsi as long as the last.
- o. Larger, more robust, less parallel, the punctuation, &c., stronger; the sides of prothorax slightly sinuate before the hind angle: elytra more abruptly declivous behind: hind tarsi shorter.

Length & $8\frac{1}{2}$, ? 10 lines; width of elytra across the middle & $2\frac{3}{4}$, ? 4 lines. Dras, Kargil, and Leh.

PROSODES VICTNA.

Very close to the preceding, from which it differs by its broader form; the prothorax underside, legs, &c., shining black; the apex of the prothorax distinctly emarginate; the sides more narrowed anteriorly, the angles more broadly rounded: the elytra a little more gradually declivous behind; the dorsal costæ more elevated, narrower, and, especially in the σ , punctured and rugose; the epipleuræ are also distinctly rugulose: the antennæ and legs are stouter; the middle joints of the former sub-moniliform; and the prosternal process is more feebly mucronate behind.

Length 3 10 lines, 2 11 lines; width of elytra across the middle 3 3 lines, 2 43 lines.

Sind Valley.

CŒLOCNEMODES, n. g.

Habit of Cælocnemis, Mann. Submentum rather strongly pedunculate; the sinus very open, exposing the base of the maxilla, its outer angle feebly dentiform: mentum broader than long, nearly plane, contracted posteriorly, sides and front angles broadly rounded from near the base, coarsely rugosely punctured, nearly covering the ligula, which is strongly transverse. and, apparently, broadly emarginate in front: last joint of labial palpi ovoid and truncate at apex; that of the maxillary feebly securiform: mandibles very thick, notched at apex: antennæ having the first seven joints coarsely punctured and hispid; joint 3 elongate, equal to 4-5 united; 4-7 equal, obconic; 8-11 perfoliate, setose, clothed, except at the base, with a fine silky yellowish pubescence; 8-10 moniliform, scarcely wider than long; 11 longer and tapering to an acute point: head transverse, sub-quadrate, but little contracted behind the cheeks; not prolonged behind the eyes: antennary orbits sub-angulate, prominent: epistoma rather short, gradually narrowed to the front, which is broadly emarginate with the angles distinct: labrunn strongly transverse, pilose, nearly entirely visible, very feebly emarginate in front, the angles rounded: eyes very narrow, flat, obsoletely faceted, anterior margin entire: prothorax moderately convex, a little wider than long; sides well rounded, somewhat abruptly contracted near the base, narrowly but distinctly channelled and transversely rugulose, finely margined; base and apex not margined, the latter arcuately emarginate, the angles broadly rounded, the former truncated, the angles distinct but not prominent, and reposing on the shoulders of the elytra: scutellum broadly triangular, penetrating between the elytra: elytra regularly convex, scarcely wider at base than base of prothorax; oblong-ovate, rapidly declivous behind, the apex produced but scarcely mucronate; shoulders depressed; sides a little sinuous near the base, gradually expanding to behind the middle: epipleuræ broad; the fold attaining the humeral angle, moderately broad, very gradually narrowed to the apex, which it attains: prosternal process closely curved round the coxæ, and broadly truncated behind: mesosternum declivous, faintly concave: metasternum very short between the coxæ; the episterna narrow and but little contracted posteriorly; epimera distinct: intercoxal process broad, truncated in front, angles rounded: legs moderate; femora thickened outwardly, the 4 posterior a little compressed, the anterior with a strong tooth on the upper edge near the apex; all the tibiæ rounded, the anterior not denticulate at outer edge, and having a curved excision near the base on its inner side; the intermediate the same but more feebly: tibial spurs short, but stout: tarsi channelled and briefly spinose beneath, the first joint of the posterior much shorter than the last, upper surface granulous.

Notwithstanding its peculiar habit, this genus unquestionably belongs to the Blaptides. As in this genus, so in many species of true Blaps, the ligula is almost entirely concealed by the mentum. The structure of the antennæ is entirely that of the genus Blaps, and most closely approaches the form as seen in B. mortisaga, Linn. The short epistoma, leaving the labium almost entirely uncovered, the unmargined base and apex of the prothorax, the hind angles reposing on the shoulders of the elytra, also manifestly approach this genus to Blaps.

The form, &c., of the elytral epipleuræ and its fold is nearly identical with what obtains in most of the species of *Prosodes*. The dentate anterior femora have their counterpart in the genus *Dila*, which, however, is of so widely different a habit that one cannot institute even a comparison between the two genera. The peculiar and exceptionally narrow, flattened, and obsoletely faceted eyes are also found in the genus *Dila*. The emargination at the base of the anterior tibiæ, and the abbreviated first joint of the hind tarsi, are the most exceptional characters, and show certain affinities in the direction of the *Scaurides*.

CŒLOCNEMODES STOLICZKANUS.

Obscure brownish black: head uneven, coarsely, but not deeply, punctured, with smaller punctures on the interspaces; the punctuation finer and somewhat granulous behind and confluent on the front: epistoma separated from the front by an impressed arched line: labrum lightly punctate and, together with the palpi, rufescent: prothorax having a broad transverse sinuate impression near the hind margin, and with two or three foveated depressions on the disc; covered with small granules, the sides being confluently granulose punctate: scutellum densely and minutely punctulate: elytra rather closely sub-seriately punctured, fainly transversely rugulose, and granulose; the suture a little thickened and smoother: epipleural fold sparsely muricately punctured: flancs of prothorax coarsely undulately rugose: abdomen punctured: prosternal process finely sulcate down the centre: legs moderately muricately punctured.

Length 10½ lines. Murree.

Sub-Family—PIMELIINÆ.

TRIGONOSCELIS SETOSA.

Black, sometimes a little nitid; more or less broadly oblong-ovate: head strongly transverse, remotely punctured, briefly setose: epistoma and labrum more strongly and closely punctured; the former short, gradually obliquely contracted to the front, which is broadly emarginate and with the angles distinct; the latter feebly sinuately rounded in front, and densely ciliate with longish bright rufous hairs: prothorax transverse, quadrate, more or less gently convex, sometimes depressed on the disc (immature individuals?); median line distinct, or not; apex truncated; front angles small, but prominent, acute, directed forwards; base, which is scarcely wider than the apex, sinuate, strongly so at the middle; hind angles a little outwardly directed; sides more or less feebly rounded before the middle, very feebly sinuate before the front angles, more strongly so towards the base; near the base is a more or less distinct, broad, transverse, somewhat sinuate, impression; granulous, the granules not densely placed, especially on the disc, where they are also smaller; each granule furnished with a short black seta; everywhere finely margined: scutellum small, almost petiolate, generally pubescent, or covered by the hairs which fringe the lower edge of the prothorax: elytra more or less depressed above, more or less broadly oval, widest before the middle, or not, more or less gradually declivous behind; the apex rather strongly produced, and (conjointly) somewhat narrowly rounded; base wider than base of prothorax, appearing more or

less strongly emarginate at each side as the shoulder is more or less advanced, which, in some examples, is as strongly so as in Diesia karelini, Fisch.; usually with an angulate depression behind the scutellum; variously granulose, each granule bearing a setiform hair, which is longer or shorter, black or fuscous brown; these granules are minute on the disc, larger (almost tuberculiform) at the sides, more or less distinctly seriately arranged down the elytra, moderately intervalled both longitudinally and transversely; at two-thirds the width of the elytron, from the suture, is placed a more or less distinct row of rather larger and more closelyplaced granules, with sometimes indications of two others, one between it and the suture, the other between it and the margin; the margin is closely, sub-serrately granulose, or tuberculose: starting from the humeral angle a more or less flexuous elevated line obliquely traverses the epipleura; this line is always granulose at the base, and sometimes more or less minutely interruptedly so along its entire length; above this line the epipleura is sparsely granulose, the granules somewhat large at the base and apex, minute and more remote between; the part of the epipleura below the line is more or less smooth, except at the apex, where are a few small granules. Underside and legs moderately, closely, and uniformly (a little largest on the femora) granulose, and clothed with a fine cinereous pubescence: the four hind tibiæ are hispid, and outwardly fringed with long fuscous hairs; the front tibiæ are strongly triangular, the outer apical angle dentiform, the outer edge finely numerously spinose or dentate¹; tibial spurs long and powerful, the inner one considerably longer than the outer: the four hind tarsi are fringed with long fuscous (sometimes becoming a little rufescent) hairs at the sides, and with a tuft of bright fulvous hairs at their tips beneath: antennæ black, clothed with short hairs, the last joints ferruginous and naked, except for a few long setæ arising from near their base; last joint short, free, acuminate at apex: prosternal process horizontal, feebly convex, granulose, more or less prominent and rounded behind.

Length 7 to $9\frac{1}{2}$ lines; width of elytra across the middle, $3\frac{1}{2}$ to $4\frac{1}{2}$ lines.

Kashgar to Kogyar.

A variable species, and showing affinities with the genus Diesia.

TRIGONOSCELIS LACERTA.

Ovoid, black: head large, strongly transverse, a little tomentose, feebly remotely punctured, granulose behind: epistoma broadly emarginate in front, angles distinct: labrum black, middle of front emarginate, angles rounded, distinctly punctured: prothorax rather strongly transverse, quadrate, depressed on the disc, and rather broadly so down the median line, apex very faintly sinuate, angles somewhat prominent and acute; sides moderately rounded anteriorly, sinuately contracted behind, base not wider than apex, sinuate, moderately so at the middle; hind angles slightly outwardly directed; irregularly covered (sparsely on the disc) with rather large, round or oval, flattened tubercles, these largest on the disc, smaller and closer at the sides, the interspaces having a few scattered minute pointed tubercles: scutellum triangular, sub-petiolate, placed on the mesonotum: elytra oval, regularly convex, gently declivous behind, apex a little produced and (conjointly) rounded: on each elytron five irregular

¹ It is really tubercled with spines arising from their summit; and when these spines get rubbed or broken off the edge appears to be dentate.

² Most probably, in fresh examples the entire surface is covered with a dull yellowish tomentum.

rows of from seven to nine generally rather large rounded and flattened tubercles, with scattered minute granules on the interspaces, the apex being more closely tubercled; the margins rather closely set with smallish, oblique, pointed setiferous, tubercles; the carina which traverses the epipleura is tubercled at base and apex and minutely denticulate between; the upper portion of the epipleura is studded (especially on its upper edge) with setiferous tubercles, which are largest at the apex; the lower portion is sparsely minutely granulose: underside and legs densely tomentose; four hind tibiæ hispid, not fringed outwardly with long hairs; front tibiæ strongly triangulate, the outer edge irregularly shortly spinose; hind tarsi not compressed, and with a few longish hairs outwardly; the first joint as long as the last: inner spur of the four hind tibiæ nearly twice the length of the outer.

Length 7½ lines. Yangihissar.

The following four species of *Pterocoma* form a distinct group in the genus, and are distinguished by the third joint of the antennæ much elongated; the prosternum protuberant in the front, leaving a more or less triangulate open space between it and the head 1); its process enormously produced, sometimes nearly entirely overlapping the mesosternum; the elytra have each three (with the exception of *Pt. semicarinata*) crenated, or tubercled, costæ, besides the marginal, the third uniting with the marginal just behind the shoulder. They all have the true *Pterocoma habit*; and the four hind tibiæ are rounded.

PTEROCOMA TIBIALIS.

Black, somewhat nitid; the four hind tibiæ distinctly rufescent: antennæ slender, pilose, and setose: legs also slender, spinose, and pilose: labrum notched in the middle of fore margin: head feebly punctured and pilose: antennary orbits reflexed, rounded anteriorly: prothorax convex, slightly sinuately emarginate in front; the angles acute and prominent; base strongly sinuate, the angles small and somewhat outwardly directed, sides feebly rounded; finely, especially on the disc, and sparsely tuberculate, the tubercles erect, pointed, and setiferous: scutellum minute: elytra with a more or less strong depression behind the scutellum; the first costa distinctly continued along the base to the scutellum; the intervals between the costæ nearly smooth, minutely remotely granulous, feebly concave, with a few long decumbent hairs: epipleuræ a little rougher, finely rugose granulate, the hairs shorter and denser: marginal costa closely set with long pointed teeth: prosternal process coarsely corrugated.

Length $4\frac{3}{4}$ to $6\frac{1}{3}$ lines; width of elytra across the middle $2\frac{5}{6}$ to $3\frac{3}{3}$ lines. Neighbourhood of Sanju.

PTEROCOMA SERRIMARGO.

Smaller than the preceding, dull brownish black: four hind tibiæ not distinctly rufescent. Antennæ shorter and stouter: labrum not notched in middle of fore margin: apex of prothorax not at all sinuate, the angles scarcely so prominent; the base not so strongly sinuate as in

1 Lacerdaire has given the name of "mentonnière" to this form of prosternum.

² The same is found in Lasiostola pubescens, Pall.

the preceding: scutellum larger: elytra not depressed behind the scutellum; the first costa not distinctly continued along the base to the scutellum; the intervals from near the base clothed with a cinereous pubescence: prosternal process relatively broader, sparsely granulose.

Length $5\frac{1}{4}$ lines; width of elytra across the middle $3\frac{1}{6}$ lines. Kogyar.

PTEROCOMA CONVEXA.

More narrowly ovate, and more convex, than the preceding; black, a little nitid; thinly clothed with fine cinereous pubescence and setose; legs tomentose, finely setose, and pilose: labrum entire in front: head and prothorax at bottom very finely, densely, and rugulosely punctulate, and with scattered small setiferous tubercles, which are largest on the sides of the latter; apex of prothorax truncated; the base sinuate: elytra not depressed behind the scutellum; base a little emarginate at each side, rapidly declivous behind; the intervals with scattered minute punctures mixed with very small setiferous tubercles; the first costa strongly continued along the base to the scutellum: underside more densely tomentose and studded with small setiferous tubercles: prosternal process not quite so strongly produced, and more pointed behind than in the preceding, and rugosely tuberculate.

Length 5 lines; width of elytra across the middle, 3 lines. No locality given.

PTEROCOMA SEMICARINATA.

Very broadly ovate, the elytra being almost rotundate; black, slightly shining: labrum emarginate in front, the angles very broadly rounded: head with a few rather large, shallow, scattered punctures, most perceptible on the epistoma, and with some small setiferous tubercles clustered above the eyes; and others, still smaller, flattened, and not setiferous, on the crown: prothorax slightly sinuate in front, the angles acute and prominent; the sides studded with setiferous tubercles, the disc having a few flattened tubercles which are distinctly umbilicate: each elytron with a single costa placed half-way between the suture and the shoulder, and extending but little beyond the half the length of the elytron; this costa is furnished with tubercles which are a little flattened at top, clustered two or three together at the base they gradually thin out into single ones, and become smaller, behind; it is also strongly continued along the base to the scutellum, the tubercles here being largest of all; between this costa and the side are indications of two other costæ, the outer one being decidedly the most distinct, these are composed of distant, very small, setiferous tubercles, there are also a few exceedingly minute tubercles scattered on the intervals near the base, each carrying a short seta; the marginal carina is composed of a double row of closely-set bluntish tubercles, which gives to the margin a finely-crenulated appearance: there is no trace of pubescence on the upper surface; the underside is thinly pubescent, the abdomen neither granulose nor tuberculate: prosternum very coarsely, deeply, and confluently punctured; its process very strongly produced, smooth and polished.

Length 6 lines; width of elytra across the middle 4½ lines. Yangihissar.

OCNERA SUBLÆVIGATA.

Habit of O. imbricata, Fisch. Black, more or less obscure, legs, etc., fuscous, antennæ and tarsi sometimes rufescent and clothed with ferruginous hairs, palpi and labium usually reddish. Head large, minutely and sparsely muricately punctured, and with minute simple punctures on the interspaces; epistoma with a few coarse punctures at the sides and front: labrum coarsely punctured anteriorly: prothorax quadrate, a little transverse, front angles slightly prominent, sides very feebly rounded anteriorly, slightly, and sinuously, contracted posteriorly; sparsely furnished with small, round, somewhat flattened umbilicate granules, and with some minute punctures scattered on the interspaces: elytra not wider at the base (which is sinuous) than the base of the prothorax, regularly oval and convex, gradually declivous behind, the apex a little produced; on each elytra are seven more or less conspicuous rows of varying, but never large, granules, these being generally somewhat oblique, and pointed behind; the 2nd, 4th, and 6th rows are the most apparent (the 6th being the most distinct of all), the others being more or less (especially at the base) confused with the granules scattered in the intervals; the 6th row is also the most continuous (and the tubercles are placed more closely together), extending from the shoulder to near the apex; the others are abbreviated behind, where they are represented by minute distant granules; the 4th and 6th converge towards the base and are united at the shoulder; the extreme outer margin is finely serrate; the intervals are plain, sparsely and very minutely granulose: the epipleuræ are loosely granulose: the flanks of the prothorax are sparsely granulose; the pro- and meso-sterna are rather strongly granulose; the metasternum with its flanks, and the flanks of the mesosternum are very minutely dispersedly granulose, and clothed with a fine cinereous tomentum: the abdomen, except in the middle, is more or less coarsely punctured, and with scattered granules: the prosternal process is broad, horizontal, and triangulate behind: the femora are rugose and granulous and hispid; the tibiæ closely hispid, the posterior feebly sinuous; the joints of the tarsi beneath are furnished at the apex with a tuft of bright fulvous hairs.

Length 9 to 10 lines. Kashgar, Yangihissar.

Sub-family—PEDININÆ.

Group-PLATYSCELIDES.

BIORAMIX, n. g.

Broadly rounded, or truncated, in front; the angles distinct, or not; marked off from the front by a well-impressed arched line: third joint of antennæ as long as 4-5 united, or a little shorter: prothorax variable, always transverse, not closely applied to base of elytra; sometimes very feebly convex and slightly narrowly depressed at the margins, or regularly convex direct from the margins; apex strongly emarginate with the angles prominent and loosely embracing the head (asidioides); or very feebly emarginate, the angles depressed and more closely embracing the head; front angle sometimes acute, or more or less rounded; base either truncate, or feebly emarginate, or sinuate, the angles prominent, or not, and either rectangular, obtuse, or rounded; sides sometimes more or less regularly rounded, or rounded in front and sub-

parallel, or sinuate (asidioides), behind: scutellum rather large; transverse; angulate, or rounded, behind; more or less exposed: elytra variable; more, or less (asidioides), elongate-oval, regularly convex, or depressed on the back (asidioides), more or less strongly declivous behind; shoulders prominent, or not, the angles distinct, or rounded; diffusely, or seriately, punctured; in the latter case (asidioides) the punctures are rather large and somewhat oblong, the intervals being more finely punctured and alternately feebly costiform; these punctures are more (asidioides), or less (sometimes only to be detected at the apex), visibly setiferous, the setæ being very short, and erect only at the apex: epipleuræ continuous with the sides, or (asidioides) vertical and marked off from the sides by a well-defined costa, which extends from the humeral angle to just within the apex; epipleural fold more or less broad, always attaining the humeral angle, which it sometimes reflects, and gradually somewhat curvedly narrowed from the base to near the apex, which it does not quite attain: prosternal process more or less horizontal, generally contracted and more or less vertical behind: intercoxal process truncate, or rounded, in front. The legs are less robust, and much less scabrous, and more finely pilose, than in *Platyscelis*: the outer apical angle of the anterior tibiæ is not dentiform; the hind tibiæ are straight, or slightly curved (asidioides). The oral organs, and the tarsi (except that the middle joints of the intermediate pair have the basal angles well rounded) do not materially differ from the same parts in the genus Platyscelis.

2. All the tarsi simple. Form generally a little more robust and convex, the elytra more rounded at the sides, less nitid, the punctuation, &c., fainter, and the antennæ a little shorter and stouter.

BIORAMIX PAMIRENSIS.

¿. Elliptic oval, black, a little nitid, underside and legs brunneous, antennæ and palpi rufescent: head finely irregularly punctured in front, coarsely punctured behind the eyes, finely closely muricate punctate and pubescent behind; broadly rounded in front; epistoma very short, the suture arched and well impressed; labrum strongly transverse, very feebly emarginate in middle of front margin, the angles broadly rounded, finely and densely punctured: third joint of antennæ nearly as long as 4-5 united: prothorax finely, sharply, and somewhat uniformly punctured, gently convex direct from the lateral margins, not closely applied to base of elytra, truncated at base and apex; sides contracted anteriorly, sub-parallel from before the middle to the base and finely bordered, base and apex still more finely bordered, but only at each side; hind angles rectangular; front angles depressed, slightly obtuse: scutellum strongly transversely triangular, densely punctured: elytra scarcely wider at base than base of prothorax, shoulders broadly rounded, leaving a distinct open angle between them and the prothorax; sides very feebly rounded, attenuate and gently declivous behind; moderately but very distinctly punctured, and showing here and there slight indications of a longitudinal seriate arrangement, faintly irregularly rugulose and alutaceous; thinly hispid at the apex and sides; epipleuræ very narrow, rounded; the fold broad, gradually curvedly contracted from humeral angle to near the apex; the punctuation, &c., as on the elytra above, but more closely and less cleanly: underside somewhat closely and very finely corrugated, and appearing granulous on the flanks: abdomen finely imbricately rugulose, pilose, first segment with a depression at the middle of its hind margin: intercoxal process rounded in front: front and middle tibiæ stout, moderately expanded outwardly, the front being also trigonal, the outer edge sharp and a little sinuous; hind tibiæ larger than the others, and more feebly



expanded outwardly: three middle joints of intermediate tarsi broader than long; hind angles rounded.

Length 5 lines.

Pamir from Sirikol to Panja.

BIORAMIX OVALIS.

Oval, less elongate, and relatively broader than the preceding: head more closely, and slightly rugosely, punctured, not densely sub-muricately punctured, nor pubescent behind: prothorax more transverse, a little less convex; sides more rounded, distinctly, and slightly sinuately, contracted behind, a little depressed at the margins, foveolate at each side the middle, the punctuation not so clean, the angles distinctly more obtuse: elytra more rounded at the sides, more convex, more abruptly narrowed, and more strongly declivous behind; punctuation much finer and little less regular, with sometimes faint indications of costæ: epipleural fold less distinctly (sometimes obsoletely) punctured; front tibiæ a little more compressed, not distinctly sinuate at outer edge: last ventral segment with a faint depression in the middle of its upper margin.

Length $4\frac{1}{2}$ to $4\frac{1}{3}$ lines. Dras, Kargil, and Leh.

BIORAMIX PUNCTICEPS.

Very near the preceding: differs in having the epistoma distinctly squarely truncated in front, more densely punctate and rugose: prothorax still more strongly transverse, front angles more obtuse, sides strongly rounded behind, effacing the hind angles: the elytra very faintly punctured, the shoulders still more strongly rounded, consequently the middle of the base of prothorax only impinges on the elytra: epipleural fold very finely rugulose, but not visibly punctate: anterior tibiæ distinctly more compressed, more triangulate, the outer apical angle a little produced: front and middle tarsi (especially the latter) distinctly narrower and more pilose.

Length 4 to 4½ lines. Dras, Kargil, and Leh.

BIORAMIX ASIDIOIDES.

Very distinct from the three preceding species by its larger size, broader and more depressed form, distinctly seriately punctate elytra, etc.

Oblong, oval, black, slightly nitid; head sub-angulate in front, somewhat coarsely, but not closely, punctured and a little rugose, more finely and closely so, and pubescent, behind: epistoma very short, but the sides are well distinguished from the antennary orbits, the angles being very distinct and nearly rectangular, the apex squarely truncated: third joint of antennæ as long as 4-5 united: prothorax transverse, somewhat depressed, its base rather closely applied to the base of elytra, moderately punctured, the punctures each bearing a short decumbent hair; apex arcuately emarginate, the angles sub-acute; base considerably wider than apex, sinuate, the angle sub-acute and somewhat outwardly directed, although

Digitized by Google

reposing on the shoulders of elytra; sides gradually expanded from apex to the middle, thence slightly and sinuately narrowed to the base; margins irregularly depressed, and transversely rugose; a faint depression at each side the disc, and another within each hind angle: scutellum small, triangular: elytra a little depressed above, more convex posteriorly and somewhat rapidly declivous behind; base a little wider than base of prothorax, slightly sinuate, shoulders slightly rounded, sides gradually, but feebly, rounded to the middle, gradually narrowed behind, on each elytron eight rows of punctures, more or less effaced at base, sides, and apex; intervals finely punctured, faintly transversely rugulose, the alternate ones a little convex, especially towards the apex; very finely and shortly hispid, most distinctly so at sides and apex; lateral margins costiform: epipleuræ distinct; the fold broad, gradually curvedly narrowed from humeral angle to near the apex, faintly rugulose punctate: last ventral segment with a broad depression in middle of front margin: front tibiæ trigonal, gradually, but not strongly, expanded outwardly; outer edge a little sinuate: hind tibiæ slightly curved: middle tarsi moderately expanded: intercoxal process truncated in front.

Length 6 lines. Sind Valley.

CHIANALUS, n. g.

Closely related to *Bioramix*; differs in having the head longer and narrower, the epistoma distinctly larger, and more produced anteriorly; the elytra costate and clothed with short erect hairs; the epipleural fold continued to the apex; the anterior tibiæ finely denticulate down the outer edge, the outer apical angle very strongly dentiform; the intermediate tarsi very feebly dilated, the joints being distinctly longer than wide. In both sexes the last abdominal segment has a semi-circular depression in the middle of the basal margin.

CHIANALUS COSTIPENNIS.

&. More or less oblong-ovate, dark brown, head and prothorax still darker, and nitid: head but little wider than long, rather strongly and somewhat closely (except on the crown) punctured, finely densely granulose punctate behind; the front is declivous to the epistomal suture, which is well marked and sub-angulate; epistoma distinctly produced beyond the base of antennæ, broadly rounded anteriorly; labrum strongly transverse, closely punctured, nearly entire in front, the angles rounded: prothorax transverse, but little convex, sides well rounded, a little uneven; the margins narrowly irregularly depressed; finely and not closely punctured, lightly (almost obsoletely) impressed down the median line, usually with a slight foveate depression at each side, and a distinct depression at each side at the base, half-way between the middle and the angles; apex narrower than base, lightly emarginate, front angles strongly depressed, lightly rounded; base faintly sinuately truncate, hind angles obtuse: scutellum small, transversely triangular: elytra more or less oval, sides more or less rounded, generally widest at the middle, suture costiform, and on each elytron four stout prominent, rounded costæ, the second and third united before the apex and continued thence as but one; running down each interval is also another costa, narrower and much less prominent; both costæ and intervals are finely granulose-punctate, and transversely rugulose, and the entire surface is moderately densely covered with short erect hairs: epipleural fold broad, very gradually narrowing



in a curve from the shoulders to the apex, which it narrowly attains, regularly but not closely covered with very minute granules, but without trace of hairs: flanks of prothorax rather closely undulately rugose and sparsely granulose: abdomen punctured and finely imbricately corrugated: third joint of antennæ as long as 4-5 united: tibiæ densely hispid, compressed, triangulate (the four anterior most strongly); the posterior straight.

 \mathfrak{P} . More convex and robust; the elytral costæ all sub-equal. Length \mathfrak{F} $\mathfrak{F}_{\frac{1}{4}}$ lines— \mathfrak{P} $\mathfrak{F}_{\frac{1}{4}}$ to 6 lines. Width of elytra across the middle \mathfrak{F} $\mathfrak{F}_{\frac{1}{4}}$ to $\mathfrak{F}_{\frac{1}{4}}$ lines— \mathfrak{P} 3 to $\mathfrak{F}_{\frac{1}{4}}$ lines. Dras, Kargil, and Leh.

MYATIS, n. g.

In this genus the head is again very short and transverse; the epistoma is excessively short, very broadly and squarely truncated in front, almost on a level with the insertion of the antennæ; the impressed line, or suture, arcuate: prothorax gently convex, somewhat variable as to its form, &c.; generally it is curvedly contracted in front, sub-parallel, or faintly sinuate, behind; the apex very feebly emarginate; the front angles obtuse; base slightly sinuately truncate, the angles acute: elytra oblong, gently convex, sides very feebly rounded, narrowed. and moderately declivous, behind; shoulders more or less oblique, the angle more or less acutely prominent, sometimes dentiform: epipleural fold moderately broad, gradually narrowed behind, not reaching the apex of elytra: the legs are slender; the outer apical angle of the anterior tibiæ acutely dentiform; the first joint of the anterior tarsi is relatively longer than in the preceding genera, and the three first joints of the intermediate tarsi are (although provided with a small brush beneath) scarcely at all dilated: the intermediate tibiæ in the & are thickened outwardly, and, as well as the posterior tibiæ, are densely fringed within with silky golden-yellow hairs: the pro- and meso-sterna are not nearly so convex, or protuberant, as in the other genera of the group: the prosternum between the coxee is thickened at each side, and terminates behind in a short reflexed mucro: the elytra are finely minutely hispid, most distinctly so at sides and at apex.

MYATIS HUMERALIS.

Oblong, pitchy brown, head and prothorax nitid: the former rather finely punctured, the punctuation a little closer, somewhat confluent, and pubescent at the sides and base; slightly irregularly foveolated between the eyes: epistoma broadly and squarely truncated, and densely ciliate, in front; the suture well marked: labrum rather closely punctured, strongly pilose: third joint of antennæ nearly as long as 4-5 united: prothorax gently convex, very nearly as long as broad, finely evenly punctured, sides delicately margined, curvedly expanded in front to before the middle, thence very slightly incurved to the hind angles, which are prominent, sub-acute, and somewhat outwardly directed; apex truncated, front angles a little depressed and rounded; base a little sinuate at each side, broadly and very gently rounded in the middle: scutellum strongly transverse, generally concealed by the short dense hairs which fringe the base of the prothorax: elytra broader at base than base of prothorax, oblong, sides feebly expanded to behind the middle, somewhat rapidly declivous be-

hind, minutely and not closely granulose-punctate, with distinct indications of striæ, intervals very faintly rugulose, and run over with very delicate sub-reticulate lines; very faintly hispid; humeral angle very prominent, dentiform: epipleural fold finely sparsely granulous; underside and legs of a lighter brown: abdomen closely, finely, sub-muricately corrugated, and thinly clothed with a long yellowish pubescence; the last joint in the s with a depression at the middle of its upper margin.

Length $4\frac{1}{4}$ to $4\frac{1}{3}$ lines. No locality given.

MYATIS QUADRATICOLLIS.

Brown, of a much lighter shade than the preceding: head somewhat strongly punctured, more distinctly foveolated between the eyes: prothorax distinctly transverse, dull-reddish castaneous, clouded with dark brown, less evenly convex, irregularly foveolately depressed at each side near the border, sides more contracted posteriorly, the hind angles not produced nor outwardly directed; base not distinctly sinuate at each side; the punctuation distinctly coarser at the sides: punctuation of elytra a little less clean and less distinct; distinctly hispid at sides and apex, this very fine, short, and of a golden-yellow colour; humeral angle prominent, but not dentiform: underside and legs of a paler reddish brown.

Length $4\frac{1}{4}$ lines.

Between Leh and Yarkand.

MYATIS VARIABILIS.

Varying from light reddish to very deep dark brown: head less distinctly foveolated between the eyes than in the preceding: prothorax distinctly less transverse, and more uniformly brown, the punctuation stronger, the median line nearly always distinct and quite smooth, more regularly and evenly convex, more rounded at the sides; the hind angles are rectangular, or are a little outwardly produced: the elytra are more parallel; the humeral angle is more or less distinct, but never prominent, the punctuation, &c., is a little closer and stronger; they are also more distinctly and uniformly hispid: the underside and legs vary from very dark to pale-reddish brown.

Length 31 to 41 lines.

Between Yangihissar and Sirikol, and Sirikol and Sanju.

These three species are very close to each other, and I strongly suspect they really constitute but one intensely variable species.

Sub-Family-OPATRINÆ.

Group-OPATRIDES.

CPATRUM KASHGARENSE.

This species has been submitted to M. Miedel, who returns it as a new species belonging to the *rusticum* (Oliv.) group.

Oblong, brown, little nitid: head broadly and sinuately rounded in front: epistoma short, a little convex on the middle, notched, but not sharply angularly, in the middle of the

front margin, the angles being well rounded; antennary orbits outwardly angulately produced beyond the eyes; finely granulose (the granules black), and thinly clothed with short scalelike hairs of a golden-yellow color: prothorax gently convex, rather deeply curvedly emarginate in front, front angles not produced, sub-acute; sides a little reflexed, gently regularly rounded; base a little wider than apex, sinuate; hind angles produced, acute, directed backwards; the surface more distinctly and regularly granulose, &c., than the head: scutellum semi-circular, finely granulose and pubescent: elytra a little wider at base than base of prothorax; oblong, slightly widest behind the middle; shoulders distinct, very finely transversely rugulose; punctate-striate, the punctures being rather large; intervals a little convex, very finely and not at all densely granulose, each granule furnished with a short scale-like hair, as in the prothorax, &c.: underside thinly clothed with a fine greyish-yellow pubescence: flanks of prothorax rather strongly granulose, meso- and meta-sterna and their flanks more finely so: abdomen finely granulose-punctate, and transversely rugulose: metasternum as long as the first ventral segment: prosternum closely curved round the coxæ: anterior tibiæ expanding outwardly, finely muricately punctured and shortly setose: last joint of all the tarsi elongate: antennæ reddish, thickening outwardly, joint 3 nearly as long as 4-5 united, 8-10 transverse and gradually broader, 11 large, ovoid.

Length 41 lines. Kashgar.

OPATRUM OCHTHEBIOIDES. Fauvel.

Dras, Kargil, and Leh.

PENTHICUS (LOBODERUS) GRACILIS.

I have submitted this species to M. J. Miedel, of Liege, who for the past five years has been engaged on a critical examination of the *Opatrides*: he returns it to me as a species distinct from the *rufescens* of Mulsant, and has furnished me with the following differential characters:—

Than rufescens—larger: prothorax more contracted posteriorly, the sides consequently are sub-angulated in the middle, front angles more pointed; the punctuation, &c., different; in gracilis the prothorax is somewhat closely, uniformly, and finely punctured on a very minutely granulose ground, and at each side the disc are some irregular foveate depressions: in rufescens the middle of the prothorax is somewhat sparsely covered with fine, but well-marked, punctures on a smooth ground, the punctuation on the sides being stronger and closer: the elytra in gracilis are more gradually (longuement) attenuated behind, but not more pointed at the apex; very faintly sulcated, the intervals somewhat sparingly covered with very minute granules and showing a line of small shallow punctures; there is also a line of very minute punctures down by the suture: in rufescens the elytra are visibly although very finely, punctate-striate, the intervals being finely, transversely, unequally rugulose: the abdominal segments in gracilis are somewhat thinly covered with very small granules, arranged in almost transverse lines; whilst in rufescens they are well punctured: the legs and antennæ are similar in both species, except that joints 3 to 7 of the latter are more elongate in gracilis.

Length of gracilis, $4\frac{1}{2}$ lines. Length of rufescens $2\frac{3}{4}$ to $3\frac{3}{4}$ lines. Kogyar. Sub-Family-HETEROTARSINA.

Group-PHOBELIIDES.

LYPROPS INDICUS, Wiedm.

Jhelam Valley.

Sub-Family-HELOPINÆ.

Group-ADELIIDES.

LENA LACORDAIREI, Marseul.

Sind Valley.

Family—CISTELIDÆ.

Sub-Family-CISTELINÆ.

Group-CISTELIDES.

ALLECULA (DIETOPSIS) COSTIPENNIS.

Elongate, narrow, chocolate-brown, head and prothorax of a little deeper tint; underside with a reddish tinge, and shining: head closely and finely punctured, pubescent; a foveate depression between the eyes: epistoma long, convex, expanding anteriorly, apex squarely truncated; labrum strongly transverse, entire and ciliate in front, with the angles rounded: last joint of maxillary palpi very broadly cultriform: antennæ sub-filiform, joints 3-11 of nearly equal length, obconic, apex of 11 narrowly rounded: prothorax convex, transverse, narrowed in front, sides parallel, front angles broadly rounded, base lightly sinuate, the angles obtuse; finely and uniformly punctured, lightly impressed down the median line, a foveate impression at each side the median line, broadly impressed at each side at the base: scutellum large, rounded behind, closely punctured, and lightly keeled down the centre: elytra at base broader than the base of prothorax; shoulders well rounded; strongly crenatestriate, the intervals convex, sparsely and very minutely punctulate, each puncture bearing a very fine, minute, pale decumbent hair: the sterna are all very finely and densely punctured and transversely rugulose, their flanks rather closely punctured, the punctures rounded and well marked: abdomen and legs very finely uniformly punctured and pubescent: tarsi with the third and fourth joints of the two front pairs lamellated, the penultimate joint only in the hind pair.

Length 5 lines; width of elytra across the middle $1\frac{1}{2}$ lines. Murree.

Group-CTENIOPIDES.

HYPOCISTELA, n. g.

Near Cteniopus, from which it differs in having the third joint of the antennæ but little more than half the length of the fourth, and, as well as joints 3-6, obliquely truncated at apex: the palpi slender, the last joint, both of labial and maxillary, elongate, oval, and not

truncated at tip: the eyes larger, more approximate beneath, and very coarsely faceted: the prothorax not curvedly narrowed to the front, and decidedly narrower at base than the base of the elytra.

HYPOCISTELA TENUIPES.

Pale testaceous, legs yellow, antennæ palish brown, eyes and tips of mandibles black, head fuscous behind. The entire upper surface is uniformly and very minutely punctulate and rugulose, and finely pubescent: elytra delicately striated: flanks of prothorax, breast, and abdomen, clouded with fuscous.

Length 3½ lines. Kogyar.

Family—LAGRIIDÆ.
Sub-Family—LAGRIINÆ.
LAGRIA INDICOLA.

Form, size, and colour of *L. glabrata*, Oliv. The eyes are silvery grey with an oblique fuscous spot above: antennæ moderately stout, filiform, last joint elongate, straight, cylindrical, and pointed at apex: prothorax broader at base than at apex, very feebly rounded at the sides, somewhat shining piceous, the front and hind margins reddish; a broad transverse impression before the base; feebly punctate, and, together with the head, clothed with a longish fuscous pilosity: elytra delicately striated, distinctly uniformly punctured, and irregularly transversely wrinkled: underside, femora, and antennæ, pitchy brown: tibiæ and tarsi paler.

Length 41 lines. Murree.

Family—MELOIDÆ.

Sub-Family-MELGINÆ.

Meloë servulus.

Small, black, with a faint bluish tinge on the elytra: antennæ shining black, compact, a little thickened towards the apex, joints obconic, 5-6-7 shorter than 3-4 or than 8-10, 10 somewhat cylindric, 11 elongate and tapering to the apex: head large, convex, distinctly and rather uniformly, but not closely, punctured: prothorax rather small, transverse, quadrate, all the angles rounded, base arcuately emarginate, punctured like the head, and with a distinct foveate depression at each side the disc: elytra faintly reticulately rugulose, somewhat scrobitulate on the epipleuræ; dehiscent from one-third their length, and somewhat gradually curvedly contracted to the apex, which is narrowly rounded; base emarginate at each side, shoulders obliquely rounded: abdomen above faintly transversely rugulose, and very sparingly minutely punctulate.

Length 3\frac{3}{4} lines.

No locality given.

Digitized by Google

Sub-Family—CANTHARINÆ.

Group-MYLABRIDES.

MYLABRIS SIDÆ, Fab., Marseul.

Sind Valley. Murree.

MYLABRIS MACILENTA, Marseul.

Murree.

Group-CANTHARIDES.

CANTHARIS ANTENNALIS.

Sind Valley.

EPICAUTA HAAGI.

- δ. Head dull red, with a large, smooth, blood-red callosity at the base of each antenna; strongly and closely punctured, a short, fine, elevated line running down the middle of the crown; scantily clothed with fine black hairs at the sides and behind; epistoma more or less clouded with black, broadly and feebly sinuately truncated in front, less densely punctured than the head; labrum entirely black, sinuous in front, punctured like the epistoma: antennæ, excepting the two basal joints which are red above, black, strongly depressed, the joints longitudinally excavated on their inner side; joint 3 elongate, triangulate, 4-6 much shorter. and becoming gradually narrower, 3-7 more or less strongly obliquely emarginated at apex, with the inner angle produced, 8-10 of nearly equal length, but becoming gradually narrower. truncated at apex, 11 longer and narrower than 10, cylindric and rounded at apex, the outer joints densely clothed with cinereous pubescence: prothorax black, a little nitid, slightly longer than wide, convex, a strong depression at the middle of the base; sides a little rounded before the middle, strongly narrowed anteriorly from before the middle, very gradually, and but little. contracted posteriorly; closely and deeply punctured, and pilose; sides, apex, and median line usually clothed with dull yellowish-white decumbent hairs: elytra dull black; base considerably wider than base of prothorax, divaricate nearly from the base, the apex obliquely rounded: very finely and densely granulose and transversely rugulose, clothed with short decumbent black hairs; the margins entirely bordered with a line of dull yellowish-white interwoven hairs. and there is also, in fresh examples, a dorsal stripe of the same: underside and legs shining black, and, except the last ventral segment, more or less thickly clothed with hairs of the same character as those that border the elytra; last ventral segment triangulately excised at apex: anterior femora with the usual sericeous hairy spot at the emargination near the apex; the front tibiæ are also emarginated at the middle within and excavated down the inner side, this is filled in with the like silky-golden pubescence: tarsi simple, the first joint of the anterior swollen on the inner side.
- wardly, joint 3 elongate, 4-6 much shorter, 3-7 more or less slightly obliquely truncated at apex, 8-10 equal, cylindric, 11 longer, rounded at tip: front legs as in the s but weaker: last ventral segment more feebly excised at apex.

Length ε 9 to 10 lines, $\mathfrak{P}_{\frac{1}{2}}$ lines. Murree.*

* Dr. Haag, who is at the present time engaged on a monograph of this group, has examined and pronounced this species to be undescribed. Mr. C. O. Waterhouse of the British Museum also states that it is quite distinct from any species described by himself (in Trans. Eut. Soc. London 1871, pp. 405-8), or by Hope.

Group-SITARIDES.

SITARIS (CRIOLIS) PECTORALIS.

Shining testaceous, tips of mandibles, eyes, scutellum, meso- and meta-sterna, and their flanks, black; middle and hind coxæ shining black: antennæ filiform, last 7 joints fuscous black, last joint elongate and tapering to a point: head broadly triangulate, convex, smooth, faintly punctate: the epistoma is separated from the front by a deeply-impressed arched line, and is in a lower plane than the front: labrum impressed on the disc, notched in front: eyes strongly transverse, rather narrow, not prominent: prothorax convex, transverse, sides rounded, and broadest, in the middle; somewhat abruptly and strongly contracted anteriorly, less so posteriorly; faintly punctured: scutellum closely punctured, narrowly rounded behind; the part placed on the mesonotum is broad, faintly costate down the middle, and with a thickened border at each side of a cinnamon-brown colour: elytra somewhat of a pale-cinnamon colour; tapering gradually behind, and dehiscent from about a third of their length; thinly clothed with a fine, silky, greyish pubescence, and with two or three slightly flexuous costæ, the outer one less distinct: upper division of the tarsal claws closely finely pectinated.

Length 43 lines. Kogyar.

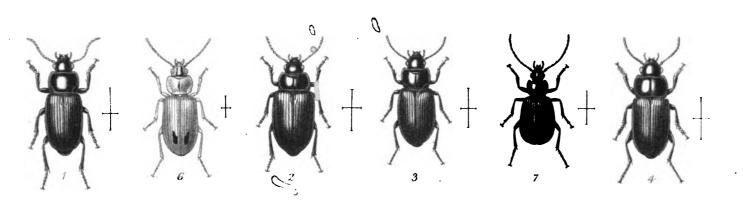
COLEOPTERA HETEROMERA.

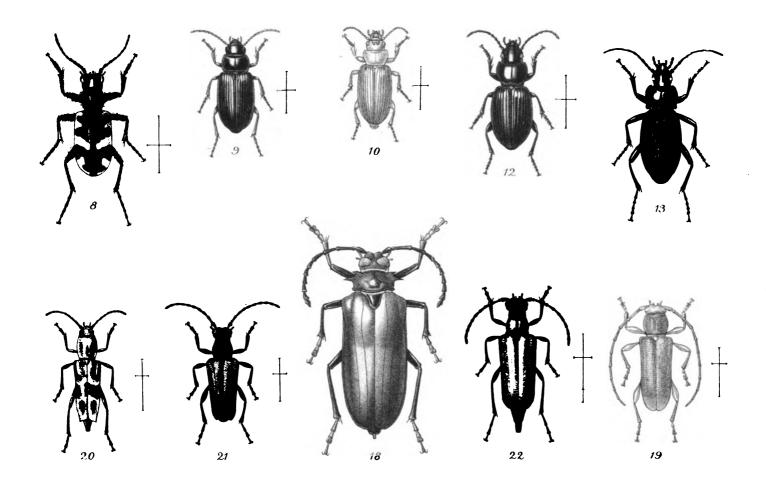
EXPLANATION OF PLATE II.

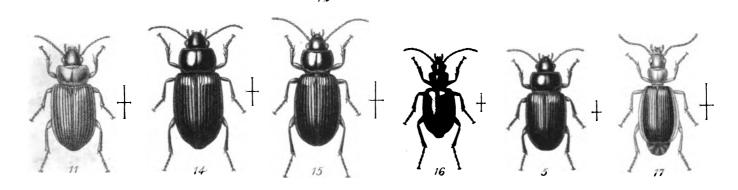
Fig. 1. Syachis himalaicus.	Fig. 13. Trigonoscelis lacerta.
,, 2. Ascelosodis ciliatus. ,, 3. ,, grandis.	,, 14. Plerocoma serrimargo. ,, 15. ,, semicarinata.
,, 4. ,, intermedius. ,, 5. Analolica montivaga. ,, 6. Microdera parvicollis.	,, 16. Bioramix asidioides &., 16. Idem, anterior tarsus., 17. Chianalus costipennis.
,, 7. Cyphogenia plana. ,, 8. ,, humeralis. ,, 9. Blaps perlonga.	,, 18. Myatis humeralis. ,, 19. Penthicus (Loboderus) gracilis. ,, 20. Hypocistela tenuipes.
,, 10. ,, indicola. ,, 11. Prosodes trisulcata. ,, 12. Cælocnemodes stoliczkanus.	" 21. Meloë servulus. " 22. Epicauta kaagi 8.

Government of India Central Printing Office. -No. 16 D. G. S.-13-11-90,-276.



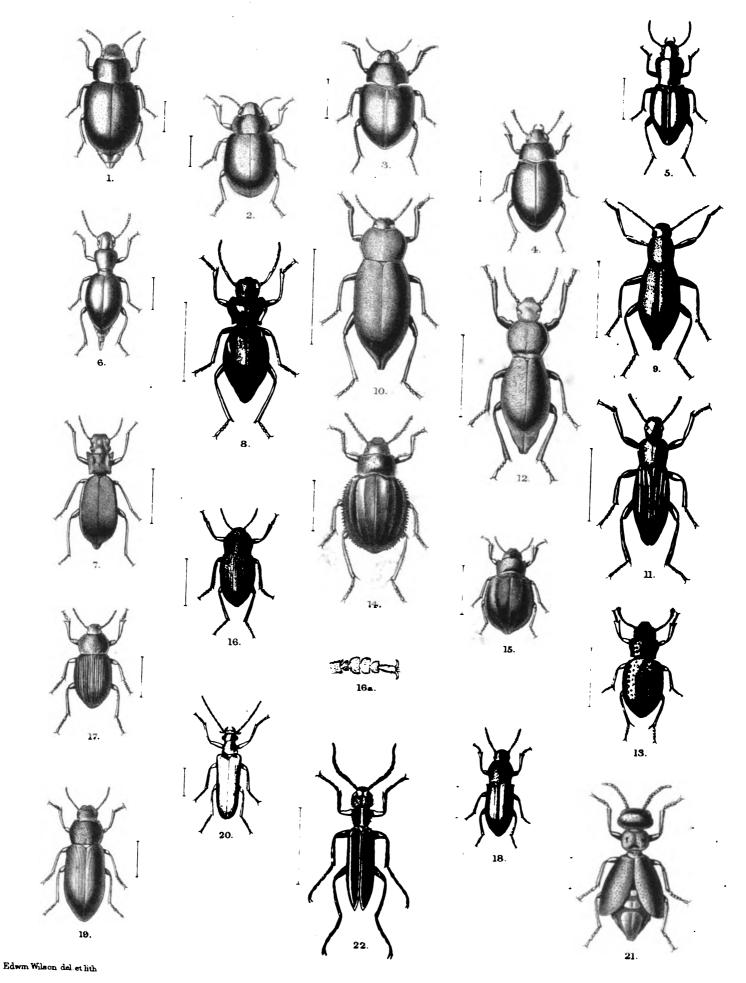






Purkiss del et lith

Hanhart imp



Mintern Bros. imp

Digitized by GOOS