XLVIII.—A remarkable new genus of Lamellicorn beetles

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Skull and teeth as described above.

Dimensions of the type :—

Head and body 320 mm.; tail 130; hind foot 65; ear 25.

Skull: greatest length 84.5; condylo-basal length 81; zygomatic breadth 27; nasals, length 37, breadth at middle 3.4, breadth behind 5; breadth of muzzle at p^1 6.5; interorbital breadth 15.3; intertemporal breadth 14; palatal length 52; palatine foramina 9.3; posterior palatine vacuities 7.5; front of canine to back of m^3 35, three anterior molariform teeth 10.5; transverse diameter of m^3 2.6.

Hab. as above.

Type. Adult male. B.M. no. 20. 7. 26. 34. Original number 21. Collected February 1920.

This mountain bandicoot is a very striking and interesting animal, widely different from any previously known form. It is at once recognizable by its crisp but not spinous fur and its extraordinarily long slender muzzle. I have much pleasure in connecting with it the name of the Pratt brothers, whose expedition has resulted in its discovery.

XLVIII.—A remarkable new Genus of Lamellicorn Beetles.

By GILBERT J. ARROW, F.Z.S., F.E.S.

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THE exceedingly remarkable little beetle here described was found in September 1897 by the French missionary, Father Cardon, at Chota Nagpore, in Bengal, and has lately been sent to me for investigation by M. René Oberthür. It was probably found in a termite nest, the curious termitophilous *Chaetopisthes fulvus*, Westw., having been taken at the same time. While exhibiting certain characteristics of both the Coprinæ and Aphodiinæ, it is impossible to refer it to either, and it appears inevitable to regard it as the type of a new subfamily (to be called Aphodiocoprinæ). Although its general conformation and especially the widely separated middle coxæ appear to indicate the Coprinæ, the fact that the interval between the coxæ is formed by the mesosternum and not the metasternum, the double spurs to the hind tibia, the corneous mandibles and strange mouth-structure exclude it from that group. The mouth-structure, as well as the distant middle coxæ, equally excludes it from the Aphodiinæ.

APHODIOCOPRIS, gen. nov.

Corpus solidum. Pedes validi, tarsis anticis gracilibus, 4 posterioribus gracilibus, valde contractis et latis. Caput latum, oculis nullis. Antennæ breves, 9-articulatæ, articulis 3-6 brevissimis, clava magna, triphylla. Os a mento toto obtectum. Coxæ anticæ contiguæ, prosterno medio obsoleto; coxæ intermediæ paulo obliquæ, latæ separatæ, mesosterni medio latitudine fere ad longitudinem æquali. Metasternum breve, haud antice productum, sutura recta a mesosterno separatum. Coxæ posticæ latæ contiguæ. Femora omnia permagna. Tibiæ omnes latæ, apice recte truncatæ, anticæ extus acute bidentatæ, absque calcare, posteriores 4 bicalcarati, intermediæ longiora, postice ante apicem minute dentatæ. Ungues simplices. Mandibula glabra, cornea, apice haud acuta. Maxilla brevis, intus pectinata, palpo gracili. Labium quadratum, absque ligula aut palpis.

Aphodiocopris minutus, sp. n.

Rufo-piceus, totus glaber, supra fuscus, opacus, corpore duplo longiori quam latiori, alte convexo, medio paulo constricto, capite lato, supra obtuse tuberculato, antice regulariter arcuato; pronoto antice lato, medio fossulato, costis 5 longitudinalibus, quarum mediana brevi antica, lateralibus utrinque retrorsum convergentibus, instructo, parte basali medio profunde canaliculato, extus oblique striato; elytris brevibus, longitudine ad pronoti longitudinem æqualibus, convexis, postice dilatatis, fortiter rotundatis, costis validis 7, prima suturali medio bifida, reliquis medio fortiter flexis, omnibus costulis transversis parum perspicuis internexis, humeris antice productis, acutis.

Long. 1.5 mm.; lat. max. .75 mm.

Hab. Bengal (Chota Nagpore): Nowatoli (*Cardon*).

This extraordinary little insect, probably the smallest Lamellicorn beetle hitherto discovered, seems to have no near relationship with any other insect. It is of extremely solid and compact build, the prothorax evidently capable of little or no separate movement, and the remarkable legs, of which the front pair are stout, with long and slender tarsi, the middle pair long, but with extremely contracted tarsi, and the hind pair short, with the tarsi still more abbreviated, evidently indicating a very sluggish and peculiar gait.

The head is broad and has an obtuse elevation upon the vertex. The front margin of the clypeus is evenly rounded and fits closely against the anterior femora and the front angles of the prothorax, the large antennal club then occupying a cavity formed by the hollowed-out lateral angles of head and thorax. Eyes are completely absent and the labium is

destitute of palpi and ligula, the mentum forming a quadrate plate covering the mouth. The terminal lobe of the maxilla forms a comb composed of five or six long stout spines, and the palpus is well developed and slender. The mandibles are completely corneous, with a cutting-edge, and blunt at the tip. The prothorax is much broader in front than at its base, where it is closely embraced by the shoulders of the elytra, and the latter organs are very short (about equal in length to the pronotum), narrow at the base and broad behind the middle. They are highly convex, but from their form are evidently fused and immovable, the wings being lost or useless. The pronotum has a deep cavity in the middle, produced in the form of a groove to the base, a short median longitudinal ridge in front of it and two long ones on each side, the inner pair parallel and the outer pair diverging to the front angles. The remaining surface is also ridged, but more finely. The elytra bear seven longitudinal ridges, in addition to the inner and outer marginal ones, the first of the seven produced by the division of the inner marginal costa, the other six arising at the base, where they are longitudinal, and strongly bent outwards about the middle. There are feebler transverse ridges between these costæ, most apparent in the wide interstice between the first and second discoidal costæ. The legs are very stout, the femora thick and hollowed above to receive the tibiæ, which are very broad and flat, the front ones truncate at the extremity, with two lateral teeth, the middle ones considerably longer than the rest and having a minute tooth at the posterior edge a little before the end. The front tarsi are slender and normal, the four posterior ones extremely short and broad, and the two basal joints imperfectly separated. There are two spurs to each of the four posterior tibiæ, but none are visible upon the front legs. Upon the posterior legs the inner one is short and straight and the outer one more than twice as long (little shorter than the hind tarsus), strongly curved and acuminate. The front and hind coxæ are contiguous, the middle ones separated by a wide interval occupied, not, as in the Coprinæ, by the anterior part of the metasternum, but by the mesosternum, which is twice the length of the metasternum and divided from it by a straight suture. There are six ventral segments visible beneath. The female has the front tibia broader than the male and its extremity obtuse internally, while in the latter it is sharply toothed.

The structure of the sternum is wholly anomalous and entirely different from that found either in the Aphodiinæ or Coprinæ, although simulating that of the latter. In most other

important features the insect is like the Aphodiinæ, especially in the occurrence of two spurs to the hind tibia. The incapacity for flight, the absence of eyes, and the remarkable specialization of the four posterior feet are features quite peculiar to the genus, and no doubt all are related to myrmecophilous or termitophilous habits. In certain respects there is a marked resemblance to *Chatopisthes*, the almost equally anomalous genus in whose company it was apparently taken by Father Cardon. In the organs of the mouth, the atrophy of the labium, and the spinose maxilla the likeness is striking, but the entirely different structure of the legs and sternum seems to prove that the similarities are due to a similar manner of life rather than a real relationship. In *Chatopisthes* the eyes are very well developed, the legs and tarsi long, the middle coxæ contiguous, and there is only a single spur to the hind tibia, as in the Coprinæ. A series of specimens of *Chatopisthes* taken by Cardon in the same locality (and probably in the same nests) as the new form show that *C. wasmanni*, Schm., is the male of *C. fulvus*, Westw., the peculiar hair-fringes being characteristic of the female and the thoracic lobes of the male.

XLIX.—*A peculiar new Genus of Australian Beetles.*

By GILBERT J. ARROW, F.Z.S., F.E.S.

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IN forwarding, through Dr. Marshall, of the Imperial Bureau of Entomology, a collection of insects from North Queensland, Dr. Illingworth has recorded for the first time a remarkable habit in certain species related to the great genus *Onthophagus*. Two species were found by him attached to the fur of wallabies, and evidently awaiting the droppings which form the food of most of the group. Specimens were even found within the cloaca. That this was no exceptional occurrence is shown by the adaptive modification of the feet in both species. In *Onthophagus* the last joint and the claws are exceedingly slender, and the latter feeble and quite simple in form; but in these wallaby-borne species this joint of the foot forms a strong grasping apparatus, and its enlargement makes the insects easily recognizable. Five species are known to me which share this peculiarity, and are also alike in their general form and in the absence of horns or other sexual armature. All of them seem to be confined to