LIV.—*A remarkable new Genus of Coccinellid Coleoptera.*

By GILBERT J. ARROW.

THE insect here described was discovered in a nest of the stingless bee (*Melipona alinderi*), inhabiting British East Africa, by the late S. Alinder, and submitted to me by Dr. George Salt. Three specimens are known. The type is in the British Museum collection.

The degree of specialization is so great that it is not possible to say to what known genera there is nearest relationship, but, making due allowance for this specialization, I think it will not be disputed that the genus can be referred to the family Coccinellidæ. The shape of the femora and tibiæ, the lobed three-jointed tarsi, the very short antennæ with four-jointed club, the formation and interlocking of the pro- and mesosternum clearly indicate this relationship, and even the remarkable concealment of the head is in a less degree found in certain genera of Coccinellidæ (*Cranophorus, Orysso-mus,* etc.). The entire suppression of the eyes has, however, reduced the head to extremely small proportions and rendered possible its complete retraction within the prothorax, so that, even when examined from beneath, only the tips of the antennæ and palpi are visible. The lower face of the pronotum forming the roof of the cavity contains three depressions, of which the middle one lodges the head and the two lateral ones the antennæ. The terminal clubs of these, although small, are large relatively to the reduced size of the organs. The legs, with narrow tibiæ capable of being withdrawn completely behind the broad femora, are not peculiar, nor are the broad epipleuræ of the elytra, containing well-defined hollows into which the legs, when folded, fit. In conjunction with the retractile head, the effect of these arrangements is that the outer margins of the thorax and elytra form a continuous oval rim, which, when pressed against the ground, encloses the whole body like the shell of a limpet. A series of other remarkable adaptations seem designed to give the insect the utmost rigidity when in this position. The prosternum is produced into a very sharp point which fits into a socket in the mesosternum. This in a rather less perfected degree is found in many Coccinellidæ, but, in addition, our insect possesses accessory interlocking devices. On each side of the mesosternal cavity which receives the prosternal process is a rounded lobe which overlaps the bases of the fore legs. Beneath the hind margin of the pronotum on each side is a strong backwardly-directed tooth, with a deep recess on

its inner side and another cavity longer and less deeply situated on the outer side. The tooth fits into a corresponding pit formed between the shoulder of the elytra and the mesonotum, and upon the latter are two projections which similarly fit into the cavities on each side of the tooth, the inner one apparently formed by the episternum and the outer by the epimeron. The mesosternum also is produced sharply outwards on each side to give support to the middle femur, while the metasternum at the sides forms a projecting ledge behind which the hind femur is lodged.

The most surprising feature in the whole anatomy is the complete fusion of the metasternum with the base of the abdomen. The last four segments of the latter are freely movable, but between these and the hind legs is a basal part longer than the four free segments together and continuous with the metasternum, the line of junction between the very widely separated legs being completely obliterated. There is a large oval depression occupying the middle of the metasternum and extending well into the abdomen, but its hind margin is indefinite, and it is impossible to determine the respective shares of thorax and abdomen in its composition. It is probable that two abdominal sternites contribute to this great undivided plate, for, although a fifth free segment can be distinguished, it is only slightly extruded, and the large one which precedes it appears to correspond to the usual sixth (terminal) sternite.

It is necessary to form for this curious insect a new genus, for which I propose the name

CLEIDOSTETHUS, gen. nov.

Corpus late ovatum, depressum, haud alatum. Pronotum fere semicirculare, antice haud emarginatum, capitem obtegens. Scutellum nullum. Elytra consolidati. Caput minutum, retractile, absque oculis. Antennæ brevissimæ, 8-articulatæ, clava compacta, 4-articulata. Pedes omnes late separati. Femora lati, tibias obtegentia. Tibiæ angustæ, bisinuatæ. Tarsi 3-articulati, lobati, angusti. Prosternum antice capitem obtegens, postice acute productum. Mesosternum latum, antice cavatum, utrinque acute producto. Metasternum cum abdomine consolidatum. Abdominis pars basalis longa, immobilis, pars postica brevis, 4-articulata, libera.

Cleidostethus meliponæ, sp. n.

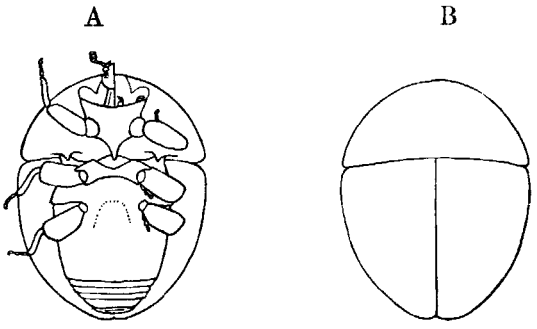
Totus ferrugineus, tibiis, tarsis, antennisque pallide flavis, corpore supra setis minutissimis, pallidis, haud dense vestito: late ovalis, corpore supra leviter convexo, minute et crebre granuloso-rugoso,

corpore subtus sat fortiter asperato-punctato, nitido, vix setoso, prothoracis et elytrorum lateribus subtus latissimis et lævissimis. Long. 1·75 mm.; lat. 1·25 mm.

Hab. Kenya: in nido *Meliponæ alinderi*.

Type in Brit. Mus.

In the accompanying figure of the lower surface of the insect the right half of the head is represented in its retracted position and the left half as unnaturally drawn out, in order



Cleidostethus meliponæ, gen. et sp. n.
A, ventral surface; B, dorsal surface.

to show its form. The legs also are folded on the right side of the figure and extended on the left. The drawings have been made for me by Dr. Salt.

LV.—*Descriptions of new, and some Notes on old, Species of* Coccidæ. By F. Laing, M.A., B.Sc., British Museum (Nat. Hist.).

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The following descriptions of, and notes on, Coccidæ represent part of the results of the examination of the large amount of material from various sources which has recently passed through my hands. My thanks are due to the individual collectors mentioned in the descriptions, but I am more especially indebted to Dr. G. A. K. Marshall, the Director of the Imperial Bureau of Entomology, through whom most of the material has been sent, and to the Government Entomologists of the various Colonies who have been indefatigable in collecting specimens of this economically important and most interesting family of insects.