dense, somewhat variegated tomentum. The metasternum bears very coarse punctures, which on the middle are rugose; the legs are reddish, and not very distinctly variegate.

A single individual, sent by Captain Broun, with the number

120 attached.

The species is allied to A. Brouni and A. bullatus, but is larger than either of those species; the uneven elytra and coarsely punctured sternum distinguish it from the former species; from A. bullatus, to which it is probably more closely allied, the much larger size and the light-coloured tomentum on the elytral elevations readily distinguish it.

LI.—Preliminary Notice of new Species of Arachnida and Myriopoda from Rodriguez, collected by Messrs. George Gulliver and H. H. Slater. By ARTHUR G. BUTLER, F.L.S., F.Z.S., &c.

As some time will elapse before the detailed account of the collections made by the Naturalists accompanying the Transit-of-Venus expeditions will be published by the Royal Society, diagnoses of the new species of Arachnida and Myriopoda are submitted in this paper.

ARACHNIDA.

Genus Sphasus.

Sphasus? extensipes, n. sp.

Q. Cephalothorax testaceous, irregularly pentagonal, almost flat; a longitudinal ridge from behind the eyes to beyond the caput: eyes black, placed upon a whitish elevation on the front of the caput; the anterior pair very minute, in the centre of the face, the others considerably larger and forming a transversely hexagonal figure: front margin of face projecting in the centre, behind the projection a V-shaped depression: abdomen testaceous, subcylindrical, flattened below, tapering slightly towards the posterior extremity: legs pale ochraceous; the tibiæ and metatarsi of the two anterior pairs fringed with brown bristles; front pair very like those of Miagrammopes; palpi short, pale ochraceous, with blackish tips; maxillæ and falces pale brown; pectoral plate elongate hexagonal; ventral surface of abdomen with three central longitudinal grey lines. Length 7 millims.; relative length of legs 1, 4, 2, 3.

(Coll. by Gulliver.)

Genus Salticus.

Salticus baptizatus, n. sp.

2. Cephalothorax inverted bell-shaped, dark shining piceous, with a whitish submarginal line, bordered within laterally by a rather wider tawny line; a minute cruciform amber-coloured spot in the centre of the caput, two lateral crescent-shaped fawn-coloured spots (one on each side) clothed with white scales, and a leaf-like fawn-coloured patch in the centre of the thoracic region, the front of which is depressed; the hinder part and apex of the thoracic patch clothed with whitish scales; falces, maxillæ, labrum, femora, tibiæ, and metatarsi of anterior legs castaneous; pectoral plate fusiform, testaceous; last three pairs of legs and tarsi of anterior pair amber-yellow, claws black; palpi whitish: eyes opaline, forming an oblong across the caput; relative sizes as follows anterior central pair, posterior, lateral anterior, lateral intermediate: abdomen elliptical, dark brown, with a lateral whitish line and a broad, white-edged, irregular, central testaceous streak; ventral surface whitish, striated with brown at the sides; a central ferruginous streak; region of spinnerets testaceous. Length 9 millims.; relative length of legs 1, 4, 2, 3.

(Coll. by Gulliver.)

This species has the general coloration of the much smaller species figured in Lucas's 'Algeria' under the name of S. testaceolineatus.

Salticus rodericensis, n. sp.

Q. Cephalothorax dark piceous, clothed with testaceous hairs; a central longitudinal reddish castaneous streak from the back of the caput to the posterior margin; eyes opaline; falces, labrum, maxillæ, legs above, femora and tibiæ below, and epigyne castaneous, clothed with testaceous hairs; tarsi testaceous, with black claws; abdomen ovate, dark brown, pilose, with a dorsal testaceous streak interrupted by angulated lines at its inferior extremity, and intersected by a black line; two arched black lines spotted with testaceous from the sides of the testaceous streak to the spinnerets; pectoral plate, coxæ, trochanters, and venter fawn-coloured, base of venter white; a central tapering grey streak. Length 10 millims.; relative length of legs 1, 2, 4, 3.

(Coll. by Gulliver.)

Apparently allied to S. intentus of Cambridge.

Salticus scabellatus, n. sp.

Q. Oculiferous region of cephalothorax black, bounded by a crescent-shaped reddish castaneous belt; thoracic region dark piceous; eyes opaline; palpi testaceous; falces, labrum, maxillæ, and anterior tibiæ dark piceous; legs above fawncoloured, pectoral plate and legs below paler; abdomen grey, subpyriform, its base black; a central pale brown longitudinal stripe, bounded laterally by four black spots, which form a square; venter pale brown, speckled with dark brown, a central line and the margins dark grey. Length 8 millims.; relative length of legs 4, 1, 3, 2.

(Coll. by Gulliver.)

Seems to be allied to S. exilis of Cambridge.

Genus Pholcus.

Pholcus vexillifer, n. sp.

Q. Cephalothorax inverted heart-shaped, waved at the ends, bright reddish castaneous; caput ascending, with the front margin and a central marking yellowish; eyes upon elevations of the surface, those of the lateral groups forming triangles, anterior pair of eyes small; falces blackish, yellowish at base; maxillæ and labrum tawny; pectoral shield pyriform, yellowish; legs pale amber-yellow, clothed with whitish hairs and black spines; palpi testaceous, with piceous tips: abdomen subcylindrical with a wavy outline, above testaceous, with a central stellate streak, several oblique lines, and the borders brown, posterior extremity testaceous; underside the same colour, with the base and a central streak greyish brown. Length 10 millims.; relative length of legs 1, 2, 4, 3. (Coll. by Gulliver.)

Genus META.

Meta vacillans, n. sp.

¿ ? Cephalothorax smoky testaceous, obovate, truncated at the ends, depressed behind; caput ascending, convex, with a marked depression on each side; a central longitudinal ridge; eyes black, in two slightly arched series: abdomen cylindrical, testaceous, with two central lines and a broad undulated longitudinal dusky band, bounded by three black spots on each side; the sides silvery; underside black, with a silvery line on each side: legs long, slender, testaceous, paler below, blackish at the joints, sparsely dotted with long spines; palpi slender,

testaceous; male palpus with a clavus resembling the head of a vulture, covered with long bristles; falces subcylindrical, testaceous, about nine teeth on their inner margins; pectoral plate pentagonal scutiform, testaceous. Length of body 6 millims.; relative length of legs 1, 2, 4, 3.

(Coll. by Gulliver.)

Genus Tetragnatha.

Tetragnatha Nero, n. sp.

The Cephalothorax fusiform, truncate at each end, narrowed in front, with a slender marginal ridge; caput ascending, bounded behind by one or two depressed diverging lines, and with a central depressed spot; centre of thoracic region depressed; eyes black; palpi long and slender, of the male with a globose clavus with white cap, and held by finger-like processes; falces with ten central teeth on each inner margin, and two terminal teeth, the longer one of which projects forwards on each side of the movable fang, the latter black; but the remainder of the cephalothorax and its members tawny; the palpi, coxæ, and trochanters pale; pectoral plate deep castaneous; abdomen pale brown, irrorated with æneous, subcylindrical, a darker dorsal line. Length of body, & millims., \$\frac{12}{5}\$; relative length of legs 1, 4, 2, 3.

(Coll. by Gulliver.)

Genus NEPHILA.

Nephila instigans, n. sp.

Q. Cephalothorax oblong, wider behind than before, laterally convex, contracted behind the caput, dull mahogany-red, but the back of thoracic region shining black, with a deep central depression; caput ascending, covered with black bristles, which also form a central longitudinal line; legs bright ochre-yellow, sprinkled with black spines; the tarsi and metatarsi castaneous, clothed with brown hair; proximal extremities of the femora blackish; basal half of palpi yellow, nearly smooth, apical half castaneous, clothed with black bristles; falces dark reddish castaneous, with three teeth on each inner margin; pectoral shield heptagonal subpyriform, black, with central orange longitudinal streak; abdomen sandy brown, with a quadrangle of four punctures; region of epigyne blackish. Length 19 millims.; relative length of legs 1, 2, 4, 3.

(Coll. by Gulliver.)

This species does not possess the usual tufted legs.

Nephila ardentipes, n. sp.

2. Cephalothorax black, hairy, oblong, with convex margins, contracted behind the caput; two central shining black tubercles; a deep excavation at the back of the thoracic region; caput ascending, laterally excavated; oculiferous tubercles shining; palpi cylindrical, mahogany-red, hairy at the base, the last three joints black and hairy: abdomen greyish testaceous, silvery pubescent; the dorsal region subochraceous, enclosing a quadrangle of four black spots in front and two parallel rows of black spots behind, where it is also bounded by six black spots, three on each side; sides covered with parallel, irregular, interrupted black lines; underside brownish, dark towards the base and crossed by a yellow band, beyond which is an area enclosed by black dots and shaped like a heraldic shield: legs robust, hairy, mahogany-red; the apices of the femora, knees, apices of tibiæ, the tarsi, and metatarsi black, the black parts densely hairy; maxillæ black, with reddish margins; pectoral plate heptagonal, with eight tubercles, three of which are prominent and form a triangle; falces black, with three marginal teeth. Length 36 millims.; relative length of legs 1, 2, 4, 3.

(Coll. by Gulliver.)

Most nearly allied to N. nigra of Vinson; but with the abdomen smaller and not clouded with black, and the legs altogether redder. I have examined thirty-seven examples, but have seen no variation.

Genus MIAGRAMMOPES.

Miagrammopes Gulliveri, n. sp.

Allied to *M. Thwaitesii* of Cambridge, but differing as follows:—cephalothorax longer and broader, more angular when seen laterally, and with convex rather than concave margins; caput longer, rather higher than the thoracic region, more convex in front, testaceous, with silvery reflections and a whitish hind border; eyes black, forming a convex series across the back of the caput; lateral eyes twice as large as the central pair, the latter far apart; legs amber-yellow, the femora notched at the distal extremity, the intermediate joints shorter than in *M. Thwaitesii*, the tarsi of the hind legs broader, claws black; palpi short, slender, hairy, testaceous; falces small, movable fang piceous; sternum somewhat different in form; abdomen nearly twice as long as the cephalothorax, testaccous, with a central blackish line wider than in *M. Thwaitesii*; and not throwing off downward branches; basal

region less contracted, lateral margins subangulated in the middle, whence they converge towards the hinder extremity; ventral surface slightly concave, testaceous, with two longitudinal brown lines; spinners concealed by dense hairs, which converge towards the central line. Length 6 millims.; relative length of legs 1, 4, 2, 3.

(Coll. by Gulliver.)

ACARIDÆ.

Genus Holothyrus.

Holothyrus? testudineus, n. sp.

Carapace ovate, convex, conical in front, fawn-coloured, clouded with brown, smooth and shining, with well-defined lateral carina; legs rather short and robust; ventral surface flattened and shining behind, with an apparently hinged oblong projecting anterior plate, wider in front than behind; body in front concave, with only three pairs of legs, their relative size 3, 2, 1; antennæ with hairy terminal joint. Length ³/₄ millim. (Coll. by Gulliver.)

Although fourteen examples of this species have come, not differing in size or structure, I have been unwilling to erect a new genus for its reception. From many points which it appears to have in common with *H. coccinella* of Mauritius, I think it possible that it may turn out to be an immature con-

dition of that species.

MYRIOPODA.

Genus Strongylosoma.

Strongylosoma erucaria, n. sp.

Deep chocolate-brown; under surface, legs, lateral wings, and hind margins of the segments pale testaceous; segments glabrous, first dorsal segment with well-defined lateral carina; preanal segment terminally rostriform. Length 8 lines, width 1 line.

(Coll. by Gulliver.)

Genus Cambala

Cambala nodulosa, n. sp.

Reddish testaceous; dorsal segments with a lateral grey stripe; first segment longitudinally multisulcate; remaining segments crossed by two rows of tubercles, between which, on each segment, is a depressed line; posterior margins narrowly reborded. Length 8 lines, width 1 millim.

(Coll. by Gulliver.)

Genus Spirostreptus.

Spirostreptus avernus, n. sp.

Black, legs and antennæ castaneous; forty-three dorsal segments; first segment smooth, with narrow marginal ridge; remaining segments rugulose and depressed in front, smooth behind, striated at the sides; preanal segment produced into a point behind. Length 13 lines, width 1 line.

Cascade Valley. (Coll. by Gulliver.)

Spirostreptus sorornus, n. sp.

Colour and general structure of the preceding; forty-nine dorsal segments, which are not rugulose in front. Length 1 inch 9 lines, width 3 millims.

(Coll. by Slater.)

Possibly S. nigerrimus of Newport, only a fragment of which now stands in the collection; so that the number of segments cannot be satisfactorily ascertained.

Spirostreptus Gulliveri, n. sp.

Olivaceous; dorsal region dark; eyes black; face, margins of first dorsal segment, and hind margins of other segments tawny; legs reddish tawny; fifty-seven dorsal segments, first segment with square anterior angles, above which are four depressed lines; marginal ridge feebly developed; each of the remaining segments crossed by a depressed line, behind which they are swollen; sides striated as usual; preanal segment slightly produced, with bisinuate hind margin. Length 2 inches 4 lines, width 5 millims.

(Coll. by Gulliver.)

Spirostreptus simulans, n. sp.

Olivaceous; a dorsal series of dark spots in front and a continuous lateral series of blackish spots; first segment clouded with brown behind; forty-three dorsal segments, first segment with marginal ridge feebly developed; remaining segments rugulose and depressed in front; preanal segment regularly arched. Length 10½ lines, width 2 millims.

(Coll. by Gulliver.)

Genus Spirobolus.

Spirobolus Hecate, n. sp.

Shining black; front margins of the segments below casta-

neous; fifty-nine dorsal segments; lateral wings of first segment quadrisulcate in front; remaining segments swollen behind, laterally striated; preanal segment deeply bisinuated behind. Length 4 inches 3 lines, width 7 millims. (Coll. by Gulliver.)

Eurylithobius, n. gen.

Lithobio affinis, multo latior, segmentis viginti; antennarum articulis septendecim, quorum decem primoribus et postremo distinctis, aliis inconspicuis; oculis utrobique quatuor; pedum paribus uno et viginti, latis, breviusculis.

Gen. typ. E. Slateri.

Eurylithobius Slateri, n. sp.

Fawn-coloured, legs and ventral surface testaceous; dorsal segments gradually narrowing towards each extremity, with two longitudinal depressed lines and a lateral marginal ridge; terminal segment subconical behind. Length of body 1 inch, including hind legs 1 inch 8 lines; width in the centre 4½ lines. (Coll. by Slater.)

Genus Rhombocephalus.

Rhombocephalus smaragdinus, n. sp.

Anterior half of body emerald-green, posterior half olive-green; segmental incisions deeper-coloured; legs pale greenish, in twenty pairs; posterior pair without denticles; preanal plate oblong. Length of the body 10½ lines.

(Coll. by Slater.)

Genus MECISTOCEPHALUS.

Mecistocephalus Gulliveri, n. sp.

Amber-coloured, legs paler; head reddish castaneous; forceps of mandibles black, the latter with about four teeth; head below deeply excavated; dorsal segments with a deep longitudinal sulcus; forty-eight pairs of legs. Length 1 inch 1 line. (Coll. by Gulliver.)

Seems allied to Geophilus insularis of Lucas.



Butler, Arthur G. 1876. "Preliminary notice of new species of Arachnida and Myriopoda from Rodriguez, collected by Mssrs George Gulliver and H. H. Slater." *The Annals and magazine of natural history; zoology, botany, and geology* 17, 439–446.

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