Peckham, G. W. and E. G. Peckham. 1885. On some new genera and species of Attidae from the eastern part of Guatemala. Proceedings of the Natural History Society of Wisconsin 1885: 62-86, plate II.

The phrase Continuation of page 42, below, refers to a previous paper on the Attidae of Madagascar and Central America, published in the same volume. A typewritten copy was used as the source for page 62, otherwise the original was used. Scientific names used in headers (upper case) were not italicized in the original document. All measurements were in mm (often omitted). Some misspelled words, such as equalling, have been left in their original form. All corrections or annotations, not part of the original, are highlighted in red.

PROCEEDINGS OF THE NATURAL

[Dec., 1885.

## ON SOME NEW GENERA AND SPECIES OF ATTIDAE FROM THE EASTERN PART OF GUATEMALA.

By G. W. and E. G. Peckham.

(Continuation of page 42.)

#### Gen. nov. Titanattus.

Cephalothorax high, plane, dilated behind dorsal eyes, sides nearly vertical; cephalic part about as long as thoracic, inclined forward; thoracic part slanting very steeply (more steeply than in *Amycus*), behind and on the sides, from the cephalic plate.

Quadrangle of eyes wider than long, very slightly wider in front than behind; anterior row strongly bent, visible from above; middle more than twice as large as lateral eyes, and a little separated; lateral eyes a little more widely separated from middle eyes; eyes of second row small, a little nearer the lateral than the dorsal eyes; dorsal equal to lateral eyes, much nearer each other than the lateral borders; this row narrower than the cephalothorax at that place. Clypeus higher than middle eyes, retreating.

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*Falces* rather stout, and short (about  $^2/_3$  as long as the face), parallel, vertical or a little retreating.

*Maxillae* rather long, and but little enlarged at extremity, bluntly pointed, parallel. Labium  $^{1}/_{2}$  as long as maxillae, about as wide as long.

*Sternum* heartshaped, projecting between anterior coxae, which are separated by more than the width of the labium. Coxae and trochanters I (especially coxae) elongated.

Legs 1, 2, 4, 3; first pair stoutest, but all slender. Patella + tibia III shorter than patella + tibia IV; patella + tibia IV longer than metatarsus + tarsus IV. Weak femoral, tibial and metatarsal spines on the four pairs, on the metatarsi of the fourth only in a terminal circle.

Very near Amycus and Triptolemus.

### TITANATTUS SAEVUS sp. nov.

♂. Total length 5 mm. Width of abdomen 1.5 mm. Cephalothorax: length 2.3; width 2; height 1.9. Legs 7.1, 5.1, 4.6, 5.1.

Coloration. The cephalothorax is dark brown, with a large white spot which occupies nearly the whole of the ocular area, and extends downward between the anterior middle eyes. The abdomen is white with a network of brown lines, one central and two lateral brown spots, and, on the posterior portion, six black dots. The clypeus and falces are dark brown; the maxillae and labium very dark, almost black; the sternum brown; the coxae pale; the legs pale, irregularly barred with brown; the palpus pale, with some brown hairs on the tarsus; the venter black, with a white longitudinal band on each side.

Habitat. Guatemala.

# Gen. nov. Triptolemus. 1

Cephalothorax high, plane, dilated behind dorsal eyes, sides nearly vertical; cephalic part as long as thoracic, inclined forward; thoracic part slanting steeply behind and on the sides from cephalic plate.

<sup>&</sup>lt;sup>1</sup> Proper name (mythological).

Quadrangle of eyes <sup>1</sup>/<sub>4</sub> wider than long, a little wider in front than behind; anterior row straight, visible from above; middle more than twice as large as lateral eyes, subtouching; lateral a little separated from middle eyes; eyes of second row small, a little nearer lateral than dorsal eyes; dorsal as large as lateral eyes, nearer to each other than to the lateral borders; this row narrower than the cephalothorax at that place. Clypeus a little higher than anterior middle eyes, and about as wide; vertical.

Falces not very stout, shorter than face, vertical, parallel.

Maxillae diverging, a little enlarged and truncated at the extremity. Labium nearly  $^{1}/_{2}$  as long as the maxillae, about as wide as long, slightly contracted and rounded at the tip.

*Sternum* heartshaped, about as wide as long, projecting between the anterior coxae, which are separated by more than the width of the labium.

*Legs,* relative length 1, 3, 2, 4; relative stoutness 1, 2, 3, 4. Patella + tibia I longer than cephalothorax; patella + tibia III longer than patella + tibia IV; patella + tibia IV a little longer than metatarsus + tarsus IV. Femoral, tibial and metatarsal spines on the four pairs; metatarsi of the fourth armed to the base.

This genus is very near *Titanattus*, separated from it principally by the anterior row of eyes being straight, not strongly bent, and by the relative length of the legs.

## TRIPTOLEMUS BENIGNUS sp. nov.

♂. Total length 5.2 mm. Width of abdomen 1.3 mm.
Cephalothorax: length 2.3; width 1.9; height 1.7.
Legs 6.5, 5.2, 5.8, 4.7. Pat. + tib. I 2.7; pat. + tib. III 2.2; pat. + tib. IV
1.7; metat. + tar. IV 1.5.

*Coloration.* The cephalothorax has the eye region light testaceous brown, with some red hairs above the anterior eyes, and the thoracic part and sides dark, almost black. The abdomen is drab, with two curved black bands, resembling a parenthesis, on the anterior part. The legs and palpi are pale testaceous,

excepting the patella, tibia, and metatarsus of the first leg, which are brown. The coxae are pale; the clypeus, falces, mouthparts, sternum, and venter, dark brown.

Habitat, Guatemala,

### Amycus C. K.

C. Koch, in defining the genus *Amycus*, took for the type *Salticus igneus* Perty (*A. igneus* Walck.). He stated that the eyes of the second row were placed half-way between the eyes of the third row and the anterior lateral eyes. Walckenaer, in describing this species, notes that the eyes of the second row are nearer the lateral than the dorsal eyes. Of the four species described by C. Koch under this genus, only one has the small eyes half-way.

We define this genus as follows:

*Cephalothorax* high and nearly plane, a little dilated behind the dorsal eyes, and narrower in front than behind; anterior sides nearly vertical, posterior sides and slope a little rounded; cephalic part occupying  $^{1}/_{2}$  the cephalothorax, and a little inclined forward; thoracic part falling steeply from just behind dorsal eyes.

Quadrangle of eyes  $^1/_4$  wider than long, a little wider behind than in front. Anterior row visible from above, slightly curved, the middle eyes projecting considerably in front of the lateral eyes, and subtouching; the lateral less than  $^1/_2$  as large, and separated from the middle eyes by  $^1/_4$  their own diameter. Eyes of the second row nearer together than the anterior lateral eyes, and half as far from them as from the dorsal eyes. Dorsal larger than lateral eyes, much nearer each other than the lateral borders, in a row which is as wide as the cephalothorax at that place. Clypeus vertical, higher, but not wider than the two middle eyes. Frons  $^1/_2$  as high as anterior lateral eyes.

*Falces* a little wider than two middle eyes, about as long as face, vertical, a little divergent at the extremities, compressed. Fang short.

*Maxillae* divergent, long, a little enlarged and truncated at extremity, pointed at outer corner, slanting within toward labium. Labium  $^{1}/_{3}$  as long as maxillae, square.

Sternum heartshaped, but little longer than wide, projecting between the anterior coxae, which are separated by at least the width of the labium.

Relative length of legs 3, 1, 2, 4; relative stoutness  $\overline{1, 2, 3}$ , 4. Femoral, tibial, and metatarsal spines on the four pairs, those on the metatarsi of the fourth extending to the base. Patella + tibia III longer than patella + tibia IV; patella + tibia IV a little shorter than metatarsus + tarsus IV.

### AMYCUS LONGI-PALPUS sp. nov.

♂. Total length 5.8 mm. Width of abdomen 1.4 mm. Cephalothorax: length 2.8; width 2.3; height 1.9. Legs 7, 5.8, 8.1, 5.9. Palpus 5 mm.

This species has the palpus as long as the femur, patella, and tibia of the first leg, and has patellary spines on the third and fourth pairs of legs.

The abdomen is slender and pointed.

Coloration. The cephalothorax is all brown excepting a small central white spot on the thoracic part behind the dorsal eyes. The abdomen is drab, with a central longitudinal white band, on each side of which, on the posterior part of the abdomen, are three black spots. The clypeus and falces are brown; the sternum, coxae, and the proximal part of the femoral joint of the first leg are pale, the legs otherwise being brownish; the maxillae are pale, the labium brown; the palpus is pale with the tarsus brownish. The venter is drab.

Habitat. Guatemala.

## PHILAEUS RUBER sp. nov.

♂. Total length 6 mm. Width of abdomen 1.7 mm.
Cephalothorax: length 2.3; width 2; height 1.6.
Legs 8.9, 4.6, 3.9, 4.9. Pat + tib. I 3.8; pat. + tib. III 1.6; pat. + tib. IV 2.1; metat. + tar. IV 1.6.

Small ♂. Total length 4.5 mm.

The *cephalothorax* is high, and is dilated behind the dorsal eyes. The cephalic part is separated from the thoracic, and occupies  $^2/_5$  of the cephalothorax; it is nearly plane, slightly inclined forward, and is widely rounded on the sides. The thoracic part is convex, and a little contracted behind. It falls from the dorsal eyes.

The quadrangle of the *eyes* is  $^1/_3$  wider than long, and is a very little wider behind than in front. The anterior eyes are in a curved row; they are all small, the middle being a little less than twice as large as the lateral, and are placed on a ridge; the middle eyes are a little separated, and the lateral are separated from them by  $^1/_2$  their own diameter, and are much further back. The eyes of the second row are a little nearer the lateral than the dorsal eyes. The dorsal are a little smaller than the lateral eyes; they are on the margin of the cephalothorax, and are further from each other than from the lateral borders. The clypeus is a little less than  $^1/_3$  as high as the anterior middle eyes, and is vertical.

The *falces* are as wide as the first row of eyes, and are as wide at the base as long, bulging out in front, twice as long as face, diverging a little at the extremity, and inclined forward. There is a short tooth on the inner anterior edge of each falx. The fang is about as long as the falx.

The *maxillae* are long; they are rounded, and a little enlarged at the extremity. The labium is a little more than  $^{1}/_{2}$  as long as the maxillae,  $^{1}/_{2}$  longer than wide, a little contracted, and blunt at the tip.

The *sternum* is narrow, truncated in front and rounded behind. It projects between the anterior coxae, which are separated by the width of the labium, and are stout and long.

The relative length of the legs is 1, 4, 2, 3; the first pair is much the stoutest. There are femoral, patellary, tibial and metatarsal spines on the four pairs, those on the metatarsi of the fourth extending to the base.

*Coloration*. The cephalothorax is dark brown with a few white hairs on the middle portion, and a wide white band on each upper side, which includes the small median and the dor-

sal eye; the abdomen is dark brown with a white longitudinal band down the middle and one on either side. The legs are brown, the first pair being much the darkest; the palpi, clypeus, and falces are brown; the sternum is black; the anterior coxae are very dark brown, the other coxae and the mouthparts light brown, and the venter dark brown.

Habitat. Guatemala.

#### PLEXIPPUS PUERPERUS HENTZ.

Syn: 1832. *Attus puerperus* Hentz. On North American Spiders, Silliman's Journal of Science and Arts, xxi., pp. 99-152.

♂. Total length 11 mm. Width of abdomen 2.4 mm.
Cephalothorax: length 4; width 2.4; height 2.8.
Legs 12.3, 10.3, 10.5, 10.8. Pat. + tib. I 5.4; pat. + tib. III 3.9; pat. + tib. IV 3.8; metat. + tar. 3.9.

The *cephalothorax* is high, rounded on the sides, and widest behind the dorsal eyes. The cephalic part occupies  $^2/_5$  of the cephalothorax; it is nearly plane, and slightly inclined. The thoracic part is somewhat rounded, but falls steeply from the dorsal eyes.

The quadrangle of the *eyes* is  $^1/_4$  wider than long, and is a little wider behind than in front. The anterior row, which is visible from above, is moderately curved; the middle eyes are subtouching, and are scarcely twice as large as the lateral eyes, the lateral being separated from the middle eyes by  $^1/_3$  their own diameter. The eyes of the second row are placed not quite twice as far from the dorsal as from the lateral eyes. The dorsal eyes are a little smaller than the lateral, and are placed by more than their diameter inside the margin; they are further from each other than from the lateral borders. The clypeus is  $^1/_3$  as high as the large middle eyes.

The *falces* are stout, being a little wider than the first row of eyes, and are flattened in front; they are twice as long as the face, parallel and vertical. The fang is short and moderately stout.

The *maxillae* are long and parallel, enlarged and slightly rounded at the extremity. The labium is but little longer than

wide, slightly more than  $^{1}/_{2}$  as long as the maxillae, a little contracted and rounded at the tip.

The *sternum* is  $1^{1}/_{2}$  times as long as wide, truncated in front, and rounded behind. It projects between the anterior coxae, which are separated by the width of the labium.

The relative length of the legs is 1, 4, 3, 2; their relative stoutness 1, 2, 3, 4, the fourth being plainly more slender than the third. There are femoral, patellary, tibial and metatarsal spines on the four pairs, those on the tibiae and metatarsi of the third and fourth being found both above and below, and those on the metatarsi extending to the base.

→ Total length 13.6 mm. Width of abdomen 4.7 mm.
Cephalothorax: length 4.8; width 4. 2; height 2. 8.
Legs 10.6, 9.1, 10.4, 11.7. Pat. + tib. I 4.8; pat. + tib. III 3.9; pat. + tib. IV 4.1; metat. + tar. IV 4.3.

The cephalic plate is not so much raised as in  $\Im$ . The thoracic part falls gradually for  $^1/_4$  of its length, not steeply from the dorsal eyes. The first row of eyes is but little curved, less than in  $\Im$ . The anterior eyes are all relatively larger than in the  $\Im$ , the middle eyes being more than twice as large as the lateral. The maxillae are more widely rounded, and the labium shorter and more slender than in the  $\Im$ . The relative length of the legs is 4, 1, 3, 2, and the relative stoutness  $\overline{1, 2}$ , 3, 4. There are no patellary spines on the first and second pairs.

Coloration. ( $\circlearrowleft$ ). The cephalothorax varies from reddish brown to black, and has a central spot and several lines white; the abdomen varies from light testaceous to dark brown, and has two longitudinal white bands, on each of which is a row of black dots. The legs and falces are dark brown; the clypeus is dark brown above, with a pale band just over the falces; on the upper portion two lines of white hairs beginning between the middle eyes, run obliquely outward to the insertion of the palpi; the palpus is brown, with a white line above, meeting that on the clypeus. The sternum, coxae and mouthparts vary from light testaceous to dark brown; the venter is brown with a longitudinal white line on each side. ( $\updownarrow$ ). The cephalothorax

is yellow, darkest in the eye region, with a brown spot just above the anterior middle eyes; the abdomen is light yellow, with three longitudinal white bands, and many black dots. The legs, palpi, falces and clypeus are yellow; the sternum, coxae and venter pale brown, the venter having a line of white hairs on each side.

Habitat. Guatemala.

### HYLLUS PRATENSIS sp. nov.

Total length 10 mm. Width of abdomen 3 mm.
Cephalothorax: length 4.2; width 3.6; height 3.1.
Legs 15.5, 11.4, 12.1, 11.1. Pat. + tib. I 6.8; pat. + tib. III 4.6; pat. + tib. IV 3.9; metat. + tar. IV 3.9.

Small  $\Im$ . 8 mm.

The *cephalothorax* is very high and convex, widest at the dorsal eyes, and more contracted in front than behind. The cephalic part is distinctly separated from the thoracic, and occupies a little more than  $^1/_3$  of the cephalothorax; its sides are widely rounded, and its upper surface nearly plane, and a little inclined forward. The thoracic part falls abruptly from the dorsal eyes for  $^2/_3$  its length, and then still more abruptly to the posterior border. It is rounded behind and on the sides. The cephalothorax is peculiar from the elevated head-plate, from which it slants away in all directions.

The quadrangle of the *eyes* is  $^{1}/_{4}$  wider than long, and is equally wide in front and behind. The first row of eyes is strongly curved and is visible from above. The middle eyes of this row are twice as large as the lateral, and are subtouching; the lateral are separated from the middle eyes by  $^{1}/_{4}$  of their own diameter. The eyes of the second row are, by a space equaling their own diameter, nearer the lateral than the dorsal eyes. The dorsal are nearly as large as the lateral eyes, and are placed inside the margin of the cephalothorax by a space equaling twice their own diameter. They are much nearer to each other than to the lateral borders.

The *clypeus* is vertical and is  $^{1}/_{2}$  as high as the middle eyes of the first row.

The *falces* are stout, their width exceeding that of the first row of eyes. They are nearly three times as long as the face, inclined forward, and diverging at the tips. The fangs are moderately long.

The *palpus* has one strong spine on the distal end of the femur.

The *maxillae* are parallel, and are enlarged and rounded at the extremities. The labium is a little more than  $^{1}/_{2}$  as long as the maxillae, longer than wide, rounded and slightly contracted at the tip.

The *sternum* is as long as the anterior coxae, and about 1/2 as wide as long. It projects between the anterior coxae, which are separated by the width of the labium.

The relative length of the legs is 1, 3, 2, 4; the first and second are the stoutest, and are equal; the third is a little stouter than the fourth. There are long spines on the femoral, patellary, tibial and metatarsal joints of the four pairs, those on the tibiae and metatarsi of the third and fourth being in both superior and inferior rows, and those on the metatarsi of the fourth extending to the base.

Coloration. The cephalothorax is black with three wide white bands, a central one beginning in the middle of the ocular area, and one on each side beginning under the dorsal eye, all extending to the posterior border. The abdomen is of a rich red color, encircled by a black band, and having a central longitudinal white band extending throughout its length; the sides, below the black band, are white; the spinnerets, black. The legs, palpi and falces are brown. The sternum, coxae, mouthparts and venter vary from light testaceous brown to black.

Habitat. Guatemala.

## JOTUS OPIMUS sp. nov.

Total length 8 mm. Width of abdomen 2.5 mm.
 Cephalothorax: length 3.9 mm; width 2.5 mm; height 2 mm.
 Legs 6.7, 6.5, 8, 8.4. Pat. + tib. I 2.6; pat. + tib. III 2.9; pat. + tib. IV 2.8; metat. + tar. IV. 3.

The *cephalothorax* is high and convex, and is a little dilated behind the dorsal eyes. The cephalic and thoracic parts are separated by a depression. The cephalic part occupies  $^2/_5$  of the cephalothorax; it is inclined forward and has its sides vertical. The thoracic part falls gradually in the first half, abruptly in the second; it is rounded behind and on the sides.

The quadrangle of the *eyes* is a little less than  $^1/_3$  wider than long, and is equally wide in front and behind. The first row of eyes, which is moderately curved, is barely visible from above; the middle eyes are subtouching, and are about 1  $^1/_2$  times as large as the lateral eyes, from which they are a little separated. The eyes of the second row are half-way between the dorsal and lateral eyes. The dorsal eyes are as large as the lateral; they are placed on the margin of the cephalothorax, and are further from the lateral borders than from each other. The frons is only a line.

The *clypeus* is a little inclined backward, and is  $\frac{3}{5}$  as high as the middle eyes.

The *falces* are robust, nearly equalling the first row of eyes in width, and are a little longer than the face. They are parallel, and inclined backward. The fang is very short.

The maxillae are enlarged and slightly rounded at the extremity. The labium is as wide as long, and is a little contracted and blunt at the tip. It is  $^{1}/_{2}$  as long as the maxillae.

The *sternum* is but little longer than wide. It is rounded behind, and truncated in front, and it projects between the anterior coxae.

The relative length of the legs is  $\overline{4}$ ,  $\overline{3}$ , 1, 2. The first, second and third pairs are stouter than the fourth. The anterior coxae are separated by the width of the labium. There are femora I patellary, tibial and metatarsal spines on the four pairs, on both upper and under surface. On the patella and tibia of the first, and on the patella, tibiae and metatarsi of the second and third legs are fringes of stout hairs, stoutest on the third.

♀. Total length 10.7 mm. Width of abdomen 3.4 mm. Cephalothorax: length 5 mm; width 3.7 mm; height 2.7 mm. Legs 8.6, 9.1, 10.8, 10.9. Pat. + tib. I 3.9; pat. + tib. III 4.2; pat. + tib. IV 4.1; metat. + tar. IV 3.8.

The posterior slope of the cephalothorax is less rounded than in the  $\circlearrowleft$ . The quadrangle of the eyes is  $^1/_3$  wider than long. The anterior lateral eyes are somewhat more separated from the middle eyes than in the  $\circlearrowleft$ , and the sternum is more sharply truncated in front. The labium is a little longer than wide, and a little more than half as long as the maxillae. The relative length of the legs is 3, 4, 2, 1, the first and second pairs being the stoutest. There are spines on the upper surface of only the third and fourth pairs.

Coloration.  $\checkmark$ . The cephalothorax is black; there is an indistinct patch of whitish hairs just above the middle anterior eyes, and a smaller patch behind each of the eyes of the second row. A little way behind the dorsal eye, on each side, is a longitudinal band of white hairs which becomes narrower and somewhat curved as it passes backward. These bands are sometimes united behind. It seems probable that the upper surface of the thoracic part was originally covered with white hairs, which have been more or less rubbed off in the different specimens. On the lower borders of the cephalothorax are bands of white hairs which extend from about opposite the dorsal eyes to that part of the cephalothorax which is overlapped by the abdomen. The ground color of the abdomen is black. At the base it is covered with whitish yellow hairs, through which there sometimes runs a transverse line of white hairs. Just behind this region is a large spot of bright red hairs which occupies the central anterior portion of the dorsum, and which, in the ♂, takes somewhat the form of an obtuse triangle. Behind this spot, and touching it, is a transverse band of white hairs (broader in the  $\stackrel{\circ}{\rightarrow}$ ), which is frequently (especially in the  $\stackrel{\circ}{\rightarrow}$ ) interrupted by black in the middle line. Behind this band the color of the middle region of the abdomen varies from whitish to yellowish. Near the spinnerets is a line of white hairs which, in the  $\mathcal{L}$ , is parallel with the white band; in the  $\mathcal{L}$  it takes the form of a

V pointing backward. The palpus is brown, the distal end of the femur and the patella being darker than the rest. The sternum, coxae and falces are brown. The maxillae and labium are brown, usually tipped with white. The venter is brownish or black; on each side is a longitudinal band of white hairs, narrowing behind, and sometimes curving toward the spinnerets. In front there is sometimes on each side a line of straggling white hairs which comes off from the anterior end of the white band, and passes upward on to the side. The legs are brownish or black. In the  $\circlearrowleft$  the patella of the third has a brilliant bluish metallic lustre.

Habitat. Guatemala.

### CYTAEA (?) CON-CINNA sp. nov.

→. Total length 8 mm. Width of abdomen 2.2 mm.
Cephalothorax: length 3.5; width 2.8; height 2.
Legs 7.4, 7.1, 8.7, 8.4. Pat. + tib. I 2.8; pat. + tib. III 3.3; pat. + tib. IV 3.2; metat. + tar. IV 2.8.

The *cephalothorax* is moderately high and convex; it is a little dilated opposite the dorsal eyes, and is more contracted in front than behind. The cephalic and thoracic parts are separated by a slight depression. The cephalic part occupies  $^2/_5$  of the cephalothorax; it is inclined forward, with vertical sides. The thoracic part slopes gradually from the dorsal eyes; it is rounded behind and on the sides.

The quadrangle of the *eyes* is  $^{1}/_{4}$  wider than long, and is equally wide in front and behind. The eyes of the first row are small, placed on a projecting ridge, and visible from above. They are in a moderately curved line, and are all subtouching, the middle being scarcely twice as large as the lateral eyes. The eyes of the second row are nearer the lateral than the dorsal eyes by a space equalling their own diameter. The eyes of the third row are on the margin of the cephalothorax, and as large as the lateral eyes, and are further from the lateral borders than from each other.

The *clypeus* is vertical, and is 1/3 as high as the middle eyes.

The *falces* are rather stout, being nearly as wide as the first row of eyes. They are twice as long as the face, parallel and vertical. The fang is short and moderately stout.

The *maxillae* are parallel, and are enlarged and rounded at their extremities. The labium is  $^2/_3$  as long as the maxillae, is longer than wide, and is a little contracted and rounded at the tip.

The *sternum* is very deepset. It is  $^{1}/_{4}$  longer than wide, and truncated in front. It projects between the anterior coxae.

The *palpus* has one spine on the distal end of the femur.

The relative length of the *legs* is 3, 4, I, 2. They are equally stout. The spines are strong and numerous, and are found on the femoral, patellary, tibial, and metatarsal joints of the four pairs. On the patella, tibiae and metatarsi of the first and second pairs there are inferior rows, and scattered spines above; on the third and fourth pairs they are in rows both above and below.

Coloration. The ground color of the cephalothorax is black; the sides are reddish, covered with white hairs; a red band crosses above the first row of eyes and passes back on each side to the dorsal eyes. There is a longitudinal white band, widest in the middle and tapering at the ends, which begins in the middle of the cephalic part and extends nearly to the posterior border. Two oblique white lines start from a point between the middle anterior eyes and extend nearly to the dorsal eyes. Around the lower border is a narrow black line. The ground color of the abdomen is rich red. It is encircled by a black band, below which the sides are white. On the anterior middle part is a large white spot, pointed in front and widening behind; and a little behind the middle is a short transverse white band; two black bands, beginning at the anterior point of the white spot, diverging a little as they go, and interrupted by the white band, pass backward to the spinnerets; on each of these, behind the white band, are two white dots. All the other parts of the spider are light brown covered with white hairs. The colors are much paler in some specimens than in others.

Habitat. Guatemala.

#### Gen. nov. Rudra<sup>1</sup>.

*Cephalothorax* very low and flat; slightly wider behind the dorsal eyes; but little longer than wide. Thoracic part twice as long as cephalic part, rounded behind.

*Eyes* forming a quadrangle nearly twice as wide as long, and equally wide in front and behind. Anterior row of eyes slightly curved downward; the middle subtouching, the lateral a little more separated, the middle a little more than twice as large as the lateral eyes. Eyes of the second row small, and placed half-way between the dorsal and lateral eyes. Dorsal eyes smaller than the lateral, and much further from each other than from the lateral border.

Clypeus only a line.

*Sternum* oval, rounded behind, truncated in front. Anterior coxae separated by width of the labium.

Maxillae less than twice labium, enlarged and rounded at extremity; parallel.

*Labium* about  $\frac{1}{3}$  longer than wide, narrow and rounded at tip.

Falces as wide as middle eyes, and but little longer than the face; nearly vertical.

*Legs* 1, 4, 2, 3. First legs much the stoutest, with femur, tibia and patella much enlarged. The patella with tibia of the third shorter than the patella with tibia of the fourth; metatarsus with tarsus of the fourth about equal to patella with tibia.

Abdomen but little longer than wide.

This genus is near *Ganesa* P., but differs in the quadrangle of the eyes being much wider, and the cephalothorax being about as wide as long. The first row of eyes is not so large. *Holoplatys* E. S. is not far away. The ocular quadrangle and the legs, however, easily distinguish it.

<sup>&</sup>lt;sup>1</sup>Proper name—Sanscrit.

### RUDRA GENICULATA sp. nov.

 Quantification of the control of the contro

The *cephalothorax* is very low and flat, and is a little dilated behind the dorsal eyes. The cephalic is not separated from the thoracic part; it occupies  $^{1}/_{3}$  of the cephalothorax, and does not slant forward; its sides are vertical. The thoracic part, which is also not inclined, is a little rounded behind and on the sides.

The quadrangle of the *eyes* is nearly twice as wide as long, and is equally wide in front and behind. The anterior row, which is visible from above, is slightly curved downward. The middle are a little more than twice as large as the lateral eyes, and are subtouching, while the lateral are separated from the middle eyes by  $^1/_2$  their own diameter; the lateral are placed very little further back than the middle eyes. The eyes of the second row are half-way between the dorsal and lateral eyes. The dorsal are smaller than the lateral eyes, and are placed just within the margin of the cephalothorax; they are much further from each other than from the lateral borders. There is no frons, and the clypeus is only a line.

The *falces* equal, in width, the two middle eyes; they are a little longer than the face, parallel and vertical, with the fangs weak.

The maxillae are a little enlarged and rounded at the extremity, and parallel. The labium is  $^{1}/_{3}$  longer than wide, a little more than  $^{1}/_{2}$  as long as the maxillae, slightly contracted and rounded at the tip.

The *sternum* is truncated in front, and rounded behind, and is  $^{1}/_{2}$  longer than wide. It projects between the anterior coxae, which are separated by the width of the labium.

The relative length of the legs is 1, 4, 2, 3; the first pair is much the stoutest, the others being slender. The patella of the first is considerably smaller than the femur and tibia. The first leg has femoral, tibial and metatarsal spines; those on the femur

<sup>&</sup>lt;sup>1</sup>Given the description of the cephalothorax (*very low and flat*), it is highly probable that this measurement should be 0.5 mm instead of the 5 mm given in the original document.

are weak, while those on the other joints are long and stout, the tibia having three and the metatarsus two pairs on the under side. The second leg has moderately stout, and the third extremely weak spines on the femur, tibia and metatarsus; while the fourth leg has only weak femoral spines.

Coloration. The cephalothorax and abdomen are pale, and each is encircled by a brown band; a central longitudinal band, also brown, extends from the anterior eyes beyond the middle point of the abdomen, and terminates in a short transverse brown bar; there are also two transverse parallel brown lines across the posterior part of the abdomen, near the spinnerets. The anterior pair of legs and the palpi are brown, the posterior three pairs of legs pale; the clypeus, falces and mouthparts are brown, the sternum, coxae and venter pale.

Habitat. Guatemala.

#### Gen. nov. Paradamoetas.

*Cephalothorax* not very high, moderately convex, slightly dilated opposite dorsal eyes, sides vertical in front, a little rounded behind, posterior slope rounded; cephalic part as long as thoracic, and slightly inclined forward; thoracic part sloping gradually from dorsal eyes.

Quadrangle of *eyes* about  $^{1}/_{5}$  wider than long, a little wider behind than in front. Anterior row straight, visible from above; middle eyes of this row twice as large as the lateral eyes, and touching; lateral eyes subtouching. Eyes of second row very small, further from dorsal than from lateral eyes. Eyes of the third row as large as lateral eyes, and further from each other than from lateral borders; this row as wide as the cephalothorax at that place. Clypeus very narrow.

Falces  $(\circlearrowleft)$  as wide as first row of eyes, three times as long as the face, horizontal, parallel;  $(\Lsh)$  little wider than two middle eyes, but little longer than face, vertical, parallel.

*Maxillae* ( $\nearrow$ ) narrow at base, truncated at tip; (?) wider, blunt at tip; in both sexes excavated on inner edge, for labium.

Labium a little more than  $^{1}/_{2}$  as long as maxillae, very little longer than wide, somewhat contracted and blunt at tip.

Sternum oval, 1/3 longer than wide, projecting between anterior coxae, which are separated by the width of the labium, and are much elongated (twice as long as the other coxae).

Legs  $(\circlearrowleft)$   $\overline{1}$ ,  $\overline{4}$ ,  $\overline{2}$ ,  $\overline{3}$ ;  $(\Lsh)$  4, 1,  $\overline{2}$ ,  $\overline{3}$ ; femoral joints of first pair enlarged and compressed; otherwise all the legs slender and ant-like. Patella + tibia III shorter than patella + tibia IV; patella + tibia IV  $(\circlearrowleft)$  equal to,  $(\Lsh)$  longer than metatarsus + tarsus IV. Femoral, tibial, and metatarsal spines on the four pairs, in terminal circles on the metatarsi of third and fourth, with one or two weak spines nearer the base.

Very near *Damoetas* P., but having the quadrangle of the eyes wider than long, and the anterior row straight. The shape of the cephalothorax, the labium, and the anterior coxae also separate it from this genus.

### PARADAMOETAS FORMICINA sp. nov.

- Total length 4.6 mm. Width of abdomen 0.9 mm.
   Cephalothorax: length 1.9 mm; width 1.3 mm; height 0.8 mm.
   Legs 4, 2.8, 2.8, 4. Pat. + tib. I 1.7; pat. + tib. III 1; pat. + tib. IV 1.5; metat. + tar. IV 1.5.
- ♀. Total length 4.8 mm. Width of abdomen 1.6 mm. Cephalothorax: length 1.8 mm; width 1.3 mm; height 0.6 mm. Legs 2.9, 2.4, 2.4, 4. Pat. + tib. I 1; pat. + tib. III 0.8; pat. pat. + tib. IV 1.3; metat. + tar. IV 1.1.

The abdomen of this species has a slight constriction.

*Coloration.* The cephalothorax and abdomen are black, the cephalothorax being covered with white, and the abdomen with greenish golden scales. The legs and palpi are light testaceous brown; the falces and mouthparts are reddish brown, the coxae pale, and the sternum and venter black.

Habitat, Guatemala,

### BAVIA ORNATA sp. nov.

Total length 8 mm. Width of abdomen 2 mm.
 Cephalothorax: length 4.1 mm; width 3.4 mm; height 2.5 mm.
 Legs 9.9, 7.3, 6.8, 9.2. Pat. + tib. I 4.2; pat. + tib. III 2.4; pat. + tib. IV 3.4: metat. + tar. IV 3.

The *cephalothorax* is low, and is a little dilated behind the dorsal eyes. The cephalic and thoracic parts are separated. The cephalic part occupies a little less than  $^1/_2$  of the cephalothorax; it is flat, a very little inclined forward, and has its sides nearly vertical. The thoracic part is a little convex. It falls gradually in the first half, more abruptly in the second; it is rounded behind and on the sides.

The quadrangle of the *eyes* is  $^1/_3$  wider than long, and is a little wider in front than behind. The anterior row of eyes, which is straight, is visible from above; the lateral are less than  $^1/_2$  as large as the middle eyes, and are separated by  $^1/_4$  their own diameter from them. The middle eyes are subtouching. The eyes of the second row are about three times as far from the dorsal as from the lateral eyes. The dorsal eyes are as large as the lateral, are placed on the upper margin of the cephalothorax, and are further from each other than from the lateral borders. There is no frons.

The *clypeus* is vertical, and is  $^1/_5$  as high as the middle eyes.

The *falces* are robust, wider than the two middle anterior eyes, about twice as long as the face, and a little inclined forward.

The maxillae are enlarged and rounded at the extremity.

The *labium* is blunt at the tip. It is  $^2/_3$  as long as the maxillae and is  $^1/_2$  longer than wide.

The *sternum* is  $^{1}/_{2}$  longer than wide; it is rounded behind, contracted in front.

The relative length of the *legs* is  $\overline{1,4}$ , 2, 3; the first pair is the stoutest. The coxae of the first pair are nearly touching. There are femoral, patellary, tibial and metatarsal spines on the

four pairs, those on the third and fourth pairs being weaker than those on the first and second. The spines on the metatarsi of the fourth pair extend to the base.

The abdomen is long, slender, and pointed.

Total length 11 mm. Width of abdomen 2.7 mm.
 Cephalothorax: length 4.1 mm; width 3 mm; height 1.4 mm.
 Legs 9.6, 7.4, 6.8, 9.2. Pat. + tib. I 4.2; pat. + tib. III 2.5; pat. + tib. IV 3.9; metat. + tar. IV 2.9.

In shape the  $\stackrel{\frown}{\sim}$  is like the  $\stackrel{\frown}{\circ}$ .

Coloration. ?. The cephalothorax is testaceous, varying in color from pale to dark brown, but always darkest in the eye-region. A black band includes all the eyes, extending around three sides of the cephalic part, and between the dorsal eyes is a dark spot. There are sometimes a few white and red hairs on the thoracic part. The abdomen has two reddish longitudinal bands, which are sometimes continuous at the base, between which is a central white or pale band dotted with brown. The sides are pale streaked with brown. The face and falces are dark reddish brown; the palpus is brownish, with brown and white hairs; the mouthparts are usually dark brown, sometimes pale; the sternum is pale, as is also the venter, the latter having sometimes a dark central band and a dark spot near the spinnerets. The legs vary in color from pale to dark brown, the first and second pairs being darker than the third and fourth; all are tipped with black.

Habitat. Central America.

## Gen. nov. Zygoballus.

Cephalothorax but little longer than wide, high, plane, widest opposite dorsal eyes, sides nearly vertical, behind truncated or hollowed; cephalic part occupying  $^3/_5$  of the cephalothorax, slightly inclined forward; thoracic part falling steeply from dorsal eyes.

Quadrangle of *eyes* about  $^{1}/_{5}$  wider than long, a little wider behind than in front; anterior row visible from above, nearly

straight; middle eyes twice as large as lateral, subtouching; lateral but little more separated from middle eyes than these from each other; eyes of second row small, plainly nearer lateral than dorsal eyes; third row as wide as cephalothorax at that place, the eyes as large or nearly as large as the lateral eyes, and more widely separated from each other than from the lateral borders. Clypeus  $^1/_4$  as high as middle anterior eyes, vertical.

*Falces* stout,  $(\circlearrowleft)$  twice as long as face,  $(\updownarrow)$  much shorter.

*Maxillae* a little enlarged, and rounded at extremity. Labium about  $^{1}/_{2}$  as long as maxillae, but little longer than wide, truncated.

Sternum ( $\nearrow$ ) heartshaped, but little longer than wide, ( $\updownarrow$ ) more oval; projecting between the anterior coxae, which are separated by more than the width of the labium, and elongated.

Abdomen short, overlapping cephalothorax.

*Legs* ( $\circlearrowleft$ ) long, slender, glabrous, relative length 1, 4, 2, 3; ( $\overset{\frown}{\hookrightarrow}$ ) relative length 4, 1, 2, 3; first pair stoutest in both sexes. Spines (on first pair moderately stout, on the others extremely weak), on the femoral, tibial, and metatarsal joints of the four pairs, and on the patellae in  $\circlearrowleft$ . Metatarsi of fourth pair armed to base. Patella + tibia III shorter than patella + tibia IV; patella + tibia IV longer than metatarsus + tarsus IV.

Nearest *Ballus C. K.*, and having some general resemblance to *Agobardus Keys*.

## ZYGOBALLUS RUFIPES sp. nov.

The coxae and trochanters of the first pair are visible from above. When looked at from above, at the inner edge, near the base of each falx, there is seen a long vertical horn. Looked at from below there is seen, coming off from the under part of each falx opposite the horn, a curved apophysis.

*Coloration*. The cephalothorax, abdomen, clypeus, sternum, and venter are jet black. The legs are light brownish red above; below, the first pair (with the coxae), is brown; the second, third and fourth pairs (with the coxae), pale, with the exception of a black longitudinal line, which is visible from below, on the anterior side of each leg. The other parts are all reddish brown.

Habitat. Guatemala.

#### Gen. nov. Pensacola.1

*Cephalothorax* very little longer than wide, moderately high, convex, a little contracted behind, anterior sides nearly vertical, rounded behind and on posterior sides; cephalic part occupying  $^{1}/_{2}$  cephalothorax.

Quadrangle of eyes  $^1/_3$  wider than long, equally wide in front and behind; anterior row slightly curved downward, with the eyes all subtouching, the middle a little more than twice as large as the lateral eyes; eyes of second row very small, placed halfway between lateral and dorsal eyes; third row as wide as cephalothorax at that place, the eyes projecting, as large as the lateral, and further from each other than from the lateral borders. Clypeus very low, about  $^1/_5$  as high as the anterior middle eyes.

Falces ( $\circlearrowleft$ ) stout, about twice as long as face, widest in the middle, with complicated apophyses; ( $\overset{\circ}{\hookrightarrow}$ ) about as wide as two middle eyes, nearly twice as long as face; retreating, parallel.

*Maxillae* narrow at base and enlarged at extremity; ( $\circlearrowleft$ ) with projection at outer corner; ( $\updownarrow$ ) rounded. Labium less than  $^1/_2$  as long as maxillae, but little longer than wide, blunt at tip.

*Sternum* oval, about  $^{1}/_{2}$  longer than wide, projecting between anterior coxae, which are separated by at least the width of the labium.

Abdomen small, oval.

*Legs* ( $\circlearrowleft$ ) 1, 3, 4, 2; ( $\overset{\hookrightarrow}{\hookrightarrow}$ ) 3, 4, 1, 2, nearly equally stout. Patella + tibia III longer than patella + tibia IV; patella +

<sup>1</sup>Geographical name.

tibia IV equal to metatarsus + tarsus IV. Femoral, patellary, tibial and metatarsal spines on the four pairs, those on the metatarsi of the fourth extending to the base.

Near *Bianor* P., but having the cephalothorax much higher, and the quadrangle of the eyes equally wide in front and behind; the anterior row of eyes, moreover, is in this genus as much bent downward as in *Bianor* it is bent upward.

### PENSACOLA SIGNATA sp. nov.

Total length 6 mm. Width of abdomen 1.8 mm.
Cephalothorax: length 3; width 2.4; height 2.
Legs 7.6, 4.9, 8, 6.3. Pat. + tib. I 3.5; pat. + tib. III 3; pat. + tib. IV 3.2; metat. + tar. IV 2.1.

This species has two male forms: In the first, which is a little the larger, the falces are more than twice as long as the face, slightly retreating, narrow at base and extremity but dilated in the middle, when looked at from in front. Near the anterior inner edge, in the middle is a strong apophysis or spine in each falx, which reaches nearly to the end of the fang. Fang long, slightly bent. The maxillae (first form) are narrow at base and much enlarged at tip, prolonged on the outer edge to form a stout apophysis, and rounding gently toward labium. In the second form the falces are relatively shorter, and are very little dilated in the middle, so that the curve on the inner edge is not marked, and the spine is less than  $^{1}/_{2}$  as long as in the first form. The maxillae have not so strong a projection. We find other forms intermediate between these two extremes.

Total length 6 mm. Width of abdomen 2.2 mm.
 Cephalothorax: length 2.8; width 2.3; height 1.4.
 Legs 4.4, 3.9, 5.7, 5.2. Pat. + tib. I 1.7; pat. + tib. III 2.3; pat. + tib. IV 1.8; metat. + tar. IV 1.8.

Coloration. ( $\circlearrowleft$ ). The cephalothorax is brown, with a diamond-shaped white spot in the middle, and a white band on each side. The abdomen is brown, with a longitudinal white band on either side of the middle; the legs are brown; the palpi

are pale, with snowy white hairs; the clypeus and falces are dark brown, the falces being somewhat iridescent; the sternum, coxae, and mouthparts are dark brown; the venter is brown with a curved longitudinal white line on each side. ( $\mathcal{L}$ ). The cephalothorax and abdomen are light reddish brown, nearly covered with fine white hairs, which form a row of chevrons on the central posterior portion of the abdomen; on each side of these chevrons is a square black spot. The legs and palpi are light brown; the clypeus and falces darker brown, with white hairs; the sternum, coxae and mouthparts are light yellowish brown; the venter is pale brown, dotted with dark brown or black.

The  $\nearrow$  of this species is most easily recognized by its conspicuously white palpi.

Habitat, Guatemala,



## EXPLANATION OF PLATE II.

- Fig. 1. *TITANATTUS SAEVUS*  $\circlearrowleft$ ; 1a, face and falces; 1b, palpus; 1c, sternum and mouthparts  $\circlearrowleft$ .
  - 2. TRIPTOLEMUS BENIGNUS, faces and falces  $\circlearrowleft$ ; 2a, palpus; 2b, sternum and mouthparts  $\circlearrowleft$ .
  - 3. *AMYCUS LONGIPALPUS*, palpus.
  - 4. *PHILAEUS RUBER*, palpus.
  - 5. PLEXIPPUS PUERPERUS HENTZ  $\circlearrowleft$ ; 5a,  $\circlearrowleft$ , abdomen; 5b, palpus; 5c, epigynum.
  - 6. *HYLLUS PRATENSIS*, palpus.
  - 7. *JOTUS OPIMUS*  $\stackrel{\circ}{\rightarrow}$ ; 7a, palpus; 7b, epigynum.
  - 8. *CYTAEA* (?) *CONCINNA*  $\stackrel{\triangle}{\hookrightarrow}$ ; 8a, epigynum.
  - 9. *RUDRA GENICULATA*  $\stackrel{\circ}{\sim}$ ; 9a, epigynum.
  - 10. PARADAMOETAS FORMICINA, palpus; 10a, sternum, etc.,  $\circlearrowleft$ .
  - 11. *BAVIA ORNATA*,  $\stackrel{\circ}{\rightarrow}$ ; 11a, epigynum; 11b, palpus.
  - 12. ZYGOBALLUS RUFIPES,  $\circlearrowleft$ ; 12a, palpus; 12b, sternum and mouthparts  $\circlearrowleft$ .
  - 13. *PENSACOLA SIGNATA*,  $\nearrow$  side view; 13a, ? abdomen; 13b, face and falces of  $\nearrow$ ; 13c, palpus; 13d, epigynum; 13e, sternum and mouthparts  $\nearrow$ .

Figs 1, 9, and 13a were drawn from specimens under alcohol; figs. 5, 5a, 7, 8 and 11 from dried specimens.

