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NEW SPECIES OF THE FAMILY ATTIDAE FROM SOUTH  
AFRICA, WITH NOTES ON THE DISTRIBUTION OF THE  
GENERA FOUND IN THE ETHIOPIAN REGION

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INTRODUCTION.

For several years we have been receiving collections of Attidae from South Africa, the largest ones coming from Mr. Guy A. K. Marshall, Mashonaland, Dr. H. Brauns, Cape Colony, and Mr. George F. Leigh and Mr. J. F. Quekett, Durban. We have also had loan collections for description, from Mr. W. F. Purcell, South African Museum, Cape Town.

Up to the present time, representatives of thirty families of spiders have been found in the Ethiopian Region, using that term in the sense in which it is employed by Mr. Wallace, in his Geographical Distribution of Animals, to include all of Africa south of the Desert of Sahara, Madagascar and the neighboring islands. A study of the eighty-six genera and two hundred and eleven species of Attidae found in this region confirms the soundness of the divisions proposed by Mr. Wallace, there being few instances of the disconnected distribution of genera, and not one instance of importance. We give, in Table I, the distribution in detail of the Ethiopian genera of the family.

TABLE I.—Showing distribution of genera of Attidae found in Ethiopian region.

| GENUS.                 | ETHIOPIAN REGION.  |              |              |               |             | Range beyond the region.                        |
|------------------------|--------------------|--------------|--------------|---------------|-------------|---|
|                        | Sub-regions.       |              |              |               |             |   |
|                        | Number of species. | East Africa. | West Africa. | South Africa. | Madagascar. |   |
| <i>Araegeus</i>        | 2                  | ••••         |              | ••••          |             |   |
| <i>Kima</i>            | 2                  |              |              | ••••          |             |   |
| <i>Marengo</i>         | 1                  |              |              | ••••          |             | Ceylon. Java                                    |
| <i>Mexcala</i>         | 1                  |              |              | ••            |             |   |
| <i>Myrmarachne</i>     | 10                 | ••••         | ••••         | •             | ••••        | Cosmopolitan.                                   |
| <i>Quekettia</i>       | 1                  |              |              |               | ••••        |   |
| <i>Aelurillus</i>      | 3                  | ••••         |              | ••••          |             | Europe. Siberia. Ceylon.                        |
| <i>Aestenorchestes</i> | 1                  |              |              |               | ••••        |   |
| <i>Alfenus</i>         | 1                  |              |              | ••••          |             |   |
| <i>Almota</i>          | 1                  |              |              | ••••          |             |   |
| <i>Asamonea</i>        | 4                  |              | ••••         |               | ••••        | Oriental region.                                |
| <i>Baryphas</i>        | 3                  |              | ••••         | ••••          |             |   |
| <i>Baviola</i>         | 1                  |              |              |               | ••••        |   |
| <i>Bianor</i>          | 1                  |              |              | ••••          |             | Palaeartic. Nearctic.<br>Oriental. Australian.  |
| <i>Branucus</i>        | 2                  |              | ••••         |               |             |   |
| <i>Carrhotus</i>       | 2                  | ••••         | ••••         |               |             | Oriental.                                       |
| <i>Copocrossa</i>      | 1                  |              |              | ••••          |             | Oriental. Australian.                           |
| <i>Cosmophasis</i>     | 1                  | ••••         | ••••         | ••••          | ••••        | Oriental. Australian.                           |
| <i>Cyllobelus</i>      | 5                  | ••••         |              | ••••          | ••••        | Oriental.                                       |
| <i>Cynapes</i>         | 4                  |              |              |               | ••••        |   |
| <i>Cyrba</i>           | 3                  | ••••         | ••••         | ••••          |             | Palaeartic. Oriental.<br>Australian.            |
| <i>Dendryphantes</i>   | 1                  |              |              | ••••          |             | Palaeartic. Oriental.<br>Neotropical. Nearctic. |
| <i>Echinussa</i>       | 3                  |              |              |               | ••••        |   |
| <i>Emertonius</i>      | 1                  |              |              |               | ••••        | Java.   |
| <i>Encymachus</i>      | 1                  | ••••         |              |               |             |   |
| <i>Ergane</i>          | 1                  |              |              |               | ••••        | Oriental. Australian.                           |
| <i>Euophrys</i>        | 4                  |              |              | ••••          |             | Nearctic. Neotropical.<br>Europe. Japan.        |
| <i>Evarcha</i>         | 1                  |              | ••••         |               |             | Java.   |
| <i>Festinicula</i>     | 1                  | ••••         |              |               |             | Egypt.  |
| <i>Goleta</i>          | 2                  |              |              |               | ••••        |   |
| <i>Habrocestum</i>     | 7                  |              |              | ••••          |             | Europe. Ceylon. Nearctic.                       |

TABLE I.—Showing distribution of genera of Attidae found in Ethiopian region—Continued.

| GENUS.             | ETHIOPIAN REGION.  |              |              |               |             | Range beyond the region.               |
|--------------------|--------------------|--------------|--------------|---------------|-------------|--|
|                    | Sub-regions.       |              |              |               |             |  |
|                    | Number of species. | East Africa. | West Africa. | South Africa. | Madagascar. |  |
| <i>Hasarius</i>    | 1                  |              |              | ••••          |             | Cosmopolitan.                          |
| <i>Heliophanus</i> | 18                 | ••••         | ••••         | ••••          | ••••        | Europe. India.                         |
| <i>Hispo</i>       | 2                  |              |              |               | ••••        |  |
| <i>Holcolaetus</i> | 1                  | ••••         | ••••         | ••••          |             |  |
| <i>Homalattus</i>  | 5                  |              | ••••         | ••••          |             |  |
| <i>Hyllus</i>      | 7                  | ••••         |              | ••••          |             | Oriental. Australian.                  |
| <i>Icius</i>       | 1                  |              |              | ••••          |             | Mediterranean Region.<br>Central Asia. |
| <i>Jasoda</i>      | 1                  |              |              | ••••          |             |  |
| <i>Jotus</i>       | 1                  |              |              | ••••          |             |  |
| <i>Klamathia</i>   | 1                  |              |              | ••••          |             |  |
| <i>Langona</i>     | 2                  | ••••         |              | ••••          |             | Syria. India.                          |
| <i>Linus</i>       | 1                  | ••••         |              | ••••          | ••••        | Oriental.                              |
| <i>Macopaeus</i>   | 2                  |              |              |               | ••••        |  |
| <i>Malloneta</i>   | 1                  |              | ••••         |               |             |  |
| <i>Massagris</i>   | 2                  |              |              | ••••          |             |  |
| <i>Mendoza</i>     | 1                  |              |              | ••••          |             |  |
| <i>Menemerus</i>   | 3                  |              |              | ••••          |             | Cosmopolitan.                          |
| <i>Modunda</i>     | 1                  |              |              | ••••          |             |  |
| <i>Mogrus</i>      | 1                  | ••••         |              | ••••          |             | Malaysia.                              |
| <i>Monclova</i>    | 1                  |              |              | ••••          |             |  |
| <i>Naetha</i>      | 1                  | ••••         |              | ••••          |             | Europe. Red Sea.                       |
| <i>Orsima</i>      | 1                  |              | ••••         |               |             |  |
| <i>Pachybellus</i> | 2                  | ••••         | ••••         | ••••          |             | New Caledonia.                         |
| <i>Pachypoessa</i> | 2                  |              | ••••         | ••••          |             |  |
| <i>Padilla</i>     | 5                  |              |              |               | ••••        | Taprobane. Java.                       |
| <i>Pandiscus</i>   | 1                  |              |              |               | ••••        |  |
| <i>Parajotus</i>   | 1                  |              |              | ••••          |             |  |
| <i>Paulostylus</i> | 4                  |              |              |               | ••••        |  |
| <i>Pellenes</i>    | 1                  |              |              | ••••          |             | Palaeartic. Nearctic.<br>Neotropical.  |
| <i>Peplometus</i>  | 2                  |              | ••••         |               |             |  |
| <i>Philaeus</i>    | 1                  |              |              | ••••          |             | Palaeartic. Nearctic.<br>Neotropical.  |

TABLE I.—Showing distribution of genera of Attidae found in Ethiopian region—Continued.

| GENUS.                | ETHIOPIAN REGION.  |              |              |               |             | Range beyond the region.                                       |
|-----------------------|--------------------|--------------|--------------|---------------|-------------|--|
|                       | Sub-regions.       |              |              |               |             |  |
|                       | Number of species. | East Africa. | West Africa. | South Africa. | Madagascar. |  |
| <i>Phlegra</i>        | 4                  |              | ••••         | ••••          |             | Palearctic. Nearctic.  |
| <i>Plexippus</i>      | 3                  |              |              | ••••          |             | Cosmopolitan.  |
| <i>Pochyta</i>        | 4                  |              | ••••         |               | ••••        |  |
| <i>Poessa</i>         | 1                  |              |              | ••••          |             |  |
| <i>Polemus</i>        | 3                  |              | ••••         |               |             |  |
| <i>Portia</i>         | 2                  |              |              | ••••          | ••••        | India.   |
| <i>Pseudicius</i>     | 4                  | ••••         |              | ••••          | ••••        | Palearctic. Nearctic.  |
| <i>Rhene</i>          | 2                  | ••••         |              |               | ••••        | Palearctic. Oriental.<br>Australian. Nearctic.<br>Neotropical. |
| <i>Saitis</i>         | 4                  |              | ••••         | ••••          |             | Palearctic. Nearctic.<br>Neotropical. Oriental.<br>Australian. |
| <i>Salpesia</i>       | 1                  |              |              |               | ••••        | Oriental. Australian.  |
| <i>Sittacus</i>       | 2                  |              |              | ••••          |             | Palearctic. Nearctic.  |
| <i>Sonoita</i>        | 1                  |              |              | ••••          |             |  |
| <i>Stenaelurillus</i> | 2                  | ••••         |              |               |             | Thibet.  |
| <i>Tarne</i>          | 1                  |              | ••••         |               |             |  |
| <i>Telemonia</i>      | 2                  |              | ••••         | ••••          |             | Asia. Japan. Oriental.   |
| <i>Thiratoscyrtus</i> | 1                  |              | ••••         |               |             |  |
| <i>Thyene</i>         | 11                 | ••••         |              | ••••          | ••••        | Palearctic.  |
| <i>Thyenula</i>       | 1                  |              |              | ••••          |             |  |
| <i>Tomocyrra</i>      | 2                  |              |              |               | ••••        |  |
| <i>Tularosa</i>       | 2                  |              |              | ••••          | ••••        |  |
| <i>Tusitala</i>       | 2                  |              |              | ••••          |             |  |
| <i>Uxuma</i>          | 1                  |              | ••••         |               |             |  |
| <i>Valloa</i>         | 2                  |              |              | ••••          |             |  |
| <i>Viciria</i>        | 7                  |              | ••••         | ••••          |             | Oriental.  |

Table II shows the distribution of spiders by families. In examining those that have genera in the Ethiopian Region we find the following cases of anomalous distribution:

|                        |  |
|------------------------|--|
| Aviculariidae,         | 33 genera in Ethiopian Region, of which 6 have a disconnected distribution.                              |
| <i>Aporoptychus</i> ,  | West Africa, South America.  |
| <i>Bolostromus</i> ,   | South Africa, South America.   |
| <i>Hermacha</i> ,      | South Africa, South America.   |
| <i>Cyclosturnum</i> ,  | West Africa, Central and South America.  |
| <i>Hapalothele</i> ,   | Madagascar, Australia, Central and South America.  |
| <i>Thelechoris</i> ,   | Madagascar, Central and South America.   |
| Uloboridae,            | 4 genera in Eth. Reg., 2 with disconnected distribution.   |
| <i>Dynopsis</i> ,      | Ethiopian Region, Australian Region, North and South America.  |
| <i>Menneus</i> ,       | Ethiopian Region, Australian Region.   |
| Zoropsidae.            | 1 genus in Eth. Reg. Distribution disconnected.  |
| <i>Scotolathys</i> ,   | 1 species in Ethiopian Region and 1 species in North America.  |
| Eresidae.              | 4 genera in Eth. Reg. Distribution normal.   |
| Filistatidae.          | 1 genus in Eth. Reg. Distribution normal.  |
| Sicariidae.            | 4 genera in Eth. Reg., 2 with disconnected distribution.   |
| <i>Sicarius</i> ,      | South Africa, South America, Galapagos.  |
| <i>Dymusa</i> ,        | 1 species in South Africa, 1 species in Antilles.  |
| Leptonetidae.          | 1 genus in Eth. Reg. Distribution normal.  |
| Oonopidae.             | 6 genera in Eth. Reg., 2 with disconnected distribution.   |
| <i>Ischnothyreus</i> , | West Africa, Philippines, Antilles.  |
| <i>Opopaea</i> ,       | South and West Africa, Philippines, South America, West Indies.  |
| Dysderidae.            | 3 genera in Eth. Reg. Distribution normal.   |
| Caponiidae.            | This family has, in all, only 3 genera. One of these is found in the Ethiopian Region, and nowhere else. |
| Prodidomidae.          | This family has, in all, 3 genera, 2 of them being Ethiopian, with normal distribution.                  |

- Drassidae. 18 genera in Eth. Reg., 3 with disconnected distribution.
- Megamyrmecion*, South and North Africa, North America.
- Aphantaulax*, Ethiopian Region, East Indies, Jamaica.
- Laronia*, West Africa, South America.
- Palpimanidae. 3 genera in Eth. Reg. Distribution normal.
- Zodariidae. 11 genera in Eth. Reg. Distribution normal.
- Hersiliidae. 2 genera in Eth. Reg. Distribution normal.
- Urocteidae. 1 genus in Eth. Reg. Distribution normal.
- Ammoxenidae. This family has 1 genus and 3 species, and is confined to South Africa.
- Pholcidae. 7 genera in Eth. Reg., 1 with disconnected distribution.
- Micromerys*, West Africa, Madagascar, Philippines, New Holland, Venezuela.
- Theridiidae. 23 genera in Eth. Reg., 2 with disconnected distribution.
- Thwaitesia*, Madagascar, North Africa, Sumatra, South America.
- Histagonia*, South Africa, North America.
- Argiopidae. 52 genera in Eth. Reg., 9 with disconnected distribution.
- Brattia*, West Africa, Philippines, South America.
- Cyatholipus*, South Africa, West Indies.
- Orsinome*, Madagascar, Polynesia, Malaysia.
- Landana*, West Africa, South America.
- Dolichognatha*, West Africa, South America, Taprobane.
- Pronous*, Madagascar, Taprobane, Central and South America.
- Glyptogona*, South Africa, Mediterranean Region, Central and South America.
- Ursa*, South Africa, Taprobane, South America.
- Anapis*, North and West Africa, South America, New Caledonia.
- Mimetidae. This family has, in all, 6 genera and 30 species. 2 genera in Eth. Reg., with normal distribution.
- Thomisidae. 49 genera in Eth. Reg., 1 with disconnected distribution.

|                       |   |
|-----------------------|---|
| <i>Stephanopsis</i> , | Madagascar, Malaysia, Australia, South America.           |
| Clubionidae.          | 47 genera in Eth. Reg., 4 with disconnected distribution. |
| <i>Caloctenus</i> ,   | West Africa, South America, Malaysia.                     |
| <i>Syrisca</i> ,      | Ethiopian Region, North and South America, West Indies.   |
| <i>Apochinomma</i> ,  | Ethiopian Region, Asia, Central and South America.        |
| <i>Ceto</i> ,         | Southeast Africa, Europe, Brazil.                         |
| Agelenidae.           | 10 genera in Eth. Reg. Distribution normal.               |
| Pisauridae.           | 13 genera in Eth. Reg., 2 with disconnected distribution. |
| <i>Ischalea</i> ,     | Madagascar, Mauritius, New Zealand.                       |
| <i>Maypaciis</i> ,    | Madagascar, Africa, North America.                        |
| Lycosidae.            | 9 genera in Eth. Reg. Distribution normal.                |
| Oxopidae.             | 4 genera in Eth. Reg., 1 with disconnected distribution.  |
| <i>Hamataliva</i> ,   | East Africa, India, North and South America, West Indies. |

It appears, from these observations, that the distribution of spiders presents no greater difficulties than the large groups of insects. The anomalous cases may be explained by supposing that the isolated species are the remains of genera which had, formerly, a wider distribution, the intermediate species having become extinct. It is probable that many difficulties will disappear when spiders have been thoroughly collected. We shall then have better opportunities for classification and many gaps will be filled. All deductions from the material at present available are tentative. Although ten thousand species have been described, there are doubtless twice as many that have not yet been discovered.



TABLE II.—*Showing the Distribution of Spiders, by Families.*

| Family.       | REGIONS.   |           |             |             |           |              |
|---------------|------------|-----------|-------------|-------------|-----------|--------------|
|               | Ethiopian. | Oriental. | Palaeartic. | Australian. | Nearctic. | Neotropical. |
| Liphistiidae  |            | ••••      |             |             |           |              |
| Aviculariidae | ••••       | ••••      | ••••        | ••••        | ••••      | ••••         |
| Atypidae      |            | ••••      | ••••        |             | ••••      | ••••         |
| Hypochilidae  |            |           | ••••        |             | ••••      |              |
| Uloboridae    | ••••       | ••••      | ••••        | ••••        | ••••      | ••••         |
| Psechridae    |            | ••••      |             |             |           |              |
| Zoropsidae    | ••••       |           | ••••        |             |           | ••••         |
| Dictynidae    | ••••       | ••••      | ••••        | ••••        | ••••      | ••••         |
| Oecobiidae    |            |           | ••••        | ••••        | ••••      | ••••         |
| Eresidae      | ••••       | ••••      | ••••        | ••••        |           |              |
| Filistatidae  | ••••       | ••••      | ••••        | ••••        | ••••      | ••••         |
| Sicariidae    | ••••       | ••••      | ••••        | ••••        | ••••      | ••••         |
| Leptonetidae  | ••••       | ••••      | ••••        |             | ••••      | ••••         |
| Oonopidae     | ••••       | ••••      | ••••        | ••••        |           | ••••         |
| Hadrotarsidae |            |           |             | ••••        |           |              |
| Caponiidae    | ••••       |           |             |             |           | ••••         |
| Dysderidae    | ••••       | ••••      | ••••        | ••••        | ••••      | ••••         |
| Prodidomidae  | ••••       | ••••      | ••••        | ••••        | ••••      | ••••         |
| Drassidae     | ••••       | ••••      | ••••        | ••••        | ••••      | ••••         |
| Palpimanidae  | ••••       | ••••      | ••••        | ••••        |           | ••••         |
| Zodariidae    | ••••       | ••••      | ••••        | ••••        | ••••      | ••••         |
| Hersiliidae   | ••••       | ••••      | ••••        | ••••        |           | ••••         |
| Pholcidae     | ••••       | ••••      | ••••        | ••••        | ••••      | ••••         |
| Theridiidae   | ••••       | ••••      | ••••        | ••••        | ••••      | ••••         |
| Archeidae     | ••••       |           |             |             |           | ••••         |
| Mimetidae     | ••••       | ••••      | ••••        | ••••        | ••••      | ••••         |
| Argiopidae    | ••••       | ••••      | ••••        | ••••        | ••••      | ••••         |
| Thomisidae    | ••••       | ••••      | ••••        | ••••        | ••••      | ••••         |
| Platoridae    |            |           |             |             |           | ••••         |
| Clubionidae   | ••••       | ••••      | ••••        | ••••        | ••••      | ••••         |
| Urocteidae    | ••••       |           | ••••        |             |           |              |
| Agelenidae    | ••••       | ••••      | ••••        | ••••        | ••••      | ••••         |
| Pisauridae    | ••••       | ••••      | ••••        | ••••        | ••••      | ••••         |
| Lycosidae     | ••••       | ••••      | ••••        | ••••        | ••••      | ••••         |

TABLE II.—*Showing the Distribution of Spiders, by Families—Cont.*

| Family.     | REGIONS.   |           |             |             |           |              |
|-------------|------------|-----------|-------------|-------------|-----------|--------------|
|             | Ethiopian. | Oriental. | Palaeartic. | Australian. | Nearctic. | Neotropical. |
| Senoculidae |            |           |             |             |           | ••••         |
| Oxyopidae   | ••••       | ••••      | ••••        | ••••        | ••••      | ••••         |
| Attidae     | ••••       | ••••      | ••••        | ••••        | ••••      | ••••         |
| Ammoxenidae | ••••       |           |             |             |           |              |

The distribution of spiders must depend very largely upon their habit of ballooning. On warm breezy days in the fall of the year, the young of many species may be seen, often in immense numbers, poised upon some elevated spot, a post, a rock, or perhaps a tall blade of grass, with spinnerets uplifted. In this position threads of gossamer are emitted and are drawn out to a great length by the wind, which finally lifts them and bears them away to fresh fields. Two cases have been observed which show that, under favorable conditions, spiders may be carried several hundred miles. Darwin notes that at a distance of sixty miles from land, while the "Beagle" was sailing before a steady, light breeze, the rigging was covered with numbers of small spiders with their webs;<sup>1</sup> and Capt. George H. Dodge, when more than two hundred miles from land, once found the masts and rigging of his vessel covered with innumerable little ballooning spiders.<sup>2</sup> In this instance the voyagers, after a pause, disappeared as they had come, on the wings of the wind. These migrations occasionally take place on a scale of astonishing magnitude. Quantities of wasted webs,—filaments snapped off by the breeze before the spider succeeds in mounting, are carried high into the air, where they become tangled together in flocculent masses, to fall again to the earth in showers of gossamer. One of these is described by Gilbert White,<sup>3</sup> as covering eight miles of terri-

<sup>1</sup> Voyage of the Beagle, Vol. III, p. 187.

<sup>2</sup> McCook, American Spiders and their Spinning-work. Vol. II, p. 273.

<sup>3</sup> Natural History of Selbourne, Letter LXV.

tory. W. H. Hudson tells of how he once found a band of gossamer on the ground, twenty yards wide and more than two miles long, so thickly covered with spiders that were attempting to fly that they were unable to get off comfortably. As soon as one threw out its lines they became entangled with those of another, lanced out at the same moment, but notwithstanding this difficulty numbers were continually floating off on the breeze.<sup>1</sup>

In the light of these facts it seems probable that Madagascar received its spider fauna from Africa, two hundred and fifty miles away. While it has some affinities with the Oriental Region, they are not of sufficient importance to require the hypothesis of an intervening continent.

In *Psyche*, for April 1902, we published descriptions of some South African Attidae, without illustrations. These descriptions are repeated below, with figures illustrating the genera and species.

## SOUTH AFRICAN ATTIDAE.

### PLURIDENTATI.

#### *Macopaeus madagascarensis* sp. nov.

Plate XIX, fig. 5.

♀. Length 4.5 mm. Legs  $\overline{423}$ , first pair missing; metatarsi and tarsi very slender.

We have one badly damaged specimen. The eye-region is covered with long bright red hairs, the rest of the cephalothorax being rubbed bare excepting a white band which runs around the margin and across the clypeus. The brown falces are, on the front faces, thickly set with short, stiff, projecting white hairs. The abdomen is dark, with a lighter patch on each side in front, and seems to have been covered with beautiful iridescent scales, the reflections being purple and blue. The legs are long and not especially slender, excepting the terminal joints; they are brown and show patches of the

<sup>1</sup> Naturalist in La Plata, p. 186.

same brilliant scales. The superior margin of the falx has three teeth, one near the insertion of the fang, and two opposite its tip. The inferior margin has five small teeth, close together.

We have one female from Madagascar. M. Simon has compared this with the type, *spinusus*, and finds it to be a different species. The two must be distinguished by the epigynes.

***Portia durbanii* sp. nov.**

Plate XIX, figs. 2, 2a, 2b.

♂. Length 7 mm. Legs 1423, first and second pairs thickened and first pair fringed.

In this species the highest point of the cephalothorax is at the second row of eyes, the third row being placed well down on the posterior slope.

The general color is brown. The eye-region, clypeus and falces are covered with brownish-white hairs. The thoracic part and sides are rubbed nearly bare in our specimens, but seem to have been covered with yellow hairs. The abdomen has a uniform covering of yellow iridescent hairs, and over this a scattering of long black hairs. The legs are brown with short yellow hairs and black spines. The first leg has a very heavy black fringe on the tibia, a shorter, thinner fringe on the femur, and a still slighter one on the patella. The palpus is brown with black hairs, and has apophyses on the femur and patella. The falces are long and vertical. The venter has yellow metallic hairs on the sides and a wide longitudinal black band down the middle.

We have three males from Durban, sent by Mr. Quekett.

***Sonoita* gen. nov.**

Plate XIX, figs. 4, 4a, 4b, 4c.

The cephalothorax is moderately high, with the sides rounding out from the front end to the widest point which is in the middle of the thoracic part. They also round out from

above downward, the lower part being wider than the upper. The highest point is at the dorsal eyes, there being a fall in both directions, that of the cephalic part being steeper than the thoracic. The front half of the thoracic part is very full and convex on top, giving a rounded upper surface, while the second half slopes off abruptly. The quadrangle of the eyes occupies nearly one-half of the cephalothorax, is only one-fifth wider than long, and is about equally wide in front and behind. The front row of eyes is strongly curved downward. The middle are less than twice as large as the lateral, and all are subtouching. The eyes of the second row are larger than is usual in this family, and are placed nearer the first than the third row. The third row is plainly narrower than the cephalothorax. The falces are short and vertical, the lower margin being armed with several teeth. The sternum is rather long, is contracted in front and behind, and truncated in front. The first coxae are separated by the width of the labium which is as wide as long. The palpus has all the joints short, the tarsus being palette-shaped.

The large eyes of the second row brings this genus into relation with several genera which Simon groups under Boetheae, Cocalodeae, Cocaleae and Lineae, but *Boethus* and *Portia* have the first row of eyes curved upward. *Cocalodes* is quite differently shaped, resembling *Lyssomanes*; *Cocalus* and *Phaeacius* have abnormally long spinnerets, and in *Linus* the thoracic part falls in one very steep slant from the third row of eyes.

The type of *Sonoita* is a new species from South Africa.

***Sonoita Lightfootii* sp. nov.**

Plate XIX, figs. 4-4c.

♂. Length 5 mm. Legs  $\overline{4312}$ , the first pair a little the stoutest, with a ridge of stiff spiny dark hairs under the tibia.

Our single specimen has been rubbed nearly bare. The dark cephalothorax shows some patches of white hairs around the eyes and on the sides, and brownish-white hairs grow thickly on the clypeus, on the broadened upper surface of the palpus,

in patches on the mottled brown and yellow legs, and on the lower sides of the abdomen. There is a thick bunch of these hairs at the front end of the abdomen, and the bare integument shows two golden-brown bands, beginning at this point and diverging a little as they pass backward to beyond the middle of the dorsum. Further back, just in front of the spinnerets, is a central patch of the same color. The rest of the abdomen is dark brown.

We have one male of this species from Cape Colony. We have named it for Mr. R. M. Lightfoot of Cape Town.

***Cyrba dotata* sp. nov.**

Plate XIX, fig. 6.

♀. Length 6.7 mm. Legs  $\overline{4132}$ , first pair stoutest, second next.

The front eyes form a straight row, the lateral being plainly further back than the middle, and more than half as large. The second row is a little nearer the third than the first. The third is nearly as wide as the cephalothorax at that place. The tibia of the first leg has three pairs of spines, and that of the second three posterior and two anterior spines. The metatarsi of the first and second have two pairs of very long spines.

Our specimen seems to have been covered with short yellow and long white hairs, but as these are nearly all rubbed away we describe it as it appears under alcohol. The cephalothorax is black, with a central longitudinal brown band on the thoracic part. The legs are brown excepting some blackish patches on the undersides of the first and second. The abdomen has the sides brown, streaked and mottled with black. The front central part is white. A black herring-bone stripe begins just in front of the middle and runs to the end, the spaces on the sides being occupied by five pairs of white spots. The clypeus has a thin fringe of whitish-brown hairs. The falces are brown, stout, and vertical. The palpi are thickly covered with brown and white hairs.

We have one female from Newlands, Cape Peninsula, collected by Mr. Purcell.

***Massagris mirificus* sp. nov.**

Plate XIX, figs. 1, 1a.

This species has the quadrangle of the eyes as long as wide. The cephalic plate is golden, marked with two black spots.

♂. Length 4 mm. Legs,  $\overline{41}$   $\overline{32}$ , first pair a little thickest.

The cephalothorax is moderately high, and is flattened above. The cephalic part has a constriction behind the first row of eyes from which the sides widen out to a point just back of the third row. The quadrangle of the eyes is as long as wide, is plainly wider in front than behind, and occupies one-half of the cephalothorax. The front row is curved downward, with the eyes all close together, the middle being twice as large as the lateral. The second row is plainly nearer the first than the third, and the third is much narrower than the cephalothorax at that place. The falces project slightly, and are moderately long and stout. The clypeus is narrow. The sternum is long, truncated in front and pointed behind. The coxae of the first pair are separated by more than the width of the labium, which is as wide as long, and less than half as long as the maxillae. The first and second legs have a single spine on the tibia. The metatarsus of the first has one pair and the metatarsus of the second, a single spine. In *M. constrictus* E. S., there are no spines on the tibiae of the first and second, while the metatarsi have one pair.

We have a rubbed specimen. The cephalothorax is dark brown excepting black spots around the eyes and a reddish-yellow region on the cephalic plate, on which are two black spots. There are some pale yellow hairs on the thoracic part, and yellowish-white hairs on the clypeus. The abdomen is pale brown, with dark brown mottling on the sides, and two rows of white patches on the dorsum. There is a thin covering of white hairs. The palpi are dusky brown, the falces dark brown. The legs are light yellow, excepting the femoral joints which are dusky.

We have one male from Mr. Quekett, Durban.

***Copocrossa bimaculata* sp. nov.**

Plate XIX, figs. 7, 7a.

The abdomen is yellowish with a round black spot, on each side, behind the middle.

♂, (not quite mature). Length 4.5 mm. Legs 1423, first pair much the stoutest, second next.

Both cephalothorax and abdomen are low and flattened. The cephalic and thoracic parts form a flat plate which narrows to a blunt point at the posterior end, and from this the sides slant outward, the fall in the eye-region being not far from vertical. There is a slight widening out of the cephalothorax behind the dorsal eyes. The quadrangle of the eyes is one-fifth wider than long, is wider behind than in front, and occupies a little more than one-third of the cephalothorax. The anterior eyes are close together in a row that is very slightly bent downward, the middle eyes being more than twice as large as the lateral. The second row is plainly nearer the first than the third, and the third is nearly as wide as the cephalothorax at that place. The cephalothorax is about twice as long as wide. The clypeus is very narrow, and the falces are short and weak. The sternum is long and narrow. The labium is as wide as long and the coxae of the first pair of legs are separated by less than its width. The first leg has the femur and tibia much enlarged. The spines are rather long and stout. The tibia has two above and three below, those underneath having stiff black hairs between the rows, and the metatarsus has two pairs. The second leg has lighter spines, two, one behind the other, on the tibia, and one pair and one single spine on the metatarsus; the third and fourth are almost unarmed. The spinnerets are underneath the abdomen, the posterior end of which projects over them in an obtuse point, very much as in Simon's drawing of *Copocrossa tenuilineata* (Hist. Nat. des Araignées, p. 474).

Our specimen has been rubbed bare, the only hairs remaining being some whitish ones along the line of the eyes. The cephalothorax is yellowish-brown above and a shade darker on the sides, and seems to have had two black spots above on a line



with the eyes of the second row. The abdomen is yellowish with two parallel, longitudinal bands, on each of which, just back of the middle, is a perfectly circular black spot. The contour of the abdomen is such that only the inner edges of these spots are on the flattened upper surface. The legs are yellow, the first pair being the darkest.

We have a single male from Durban, Natal, sent to us by Mr. Quekett.

UNIDENTATI.\*

***Telemonia aequipes* sp. nov.**

Plate XIX, figs. 3-3c.

♂. Length 4.5 mm. Legs  $\overline{1432}$ , first and second a little the stoutest, first, third and fourth nearly equal in length.

The cephalothorax is high and convex, the highest point being between the second and third rows of eyes. The cephalic part is only very slightly inclined, but the thoracic falls in a steep rounded slope. The sides are gently rounded out so that the cephalothorax is nearly as wide as long. The quadrangle of the eyes is nearly equally wide in front and behind. The first row is straight, with the middle eyes subtouching and less than twice as large as the lateral, which are separated from them. The second row is halfway between the others and the third is narrower than the cephalothorax. The clypeus is rather high. The falces are strong, projecting, and divergent, with a single slender tooth near the distal end, on the inferior margin, and a long fang. The tibiae of the first and second legs have three pairs of long slender spines, underneath, and the metatarsi have lateral as well as inferior spines. The sternum is rounded in front and slightly pointed behind. The first coxae are separated by more than the width of the labium which is about as wide as long.

We have two rubbed specimens. Both cephalathorax and abdomen show patches of brilliantly iridescent white scales, and

\* While *Thyene* is included in the Unidentati, one species, *crudelis*, has a compound tooth on the lower margin of the falx.

there are short white hairs on the clypeus. The general ground color is dark, although one abdomen has a pale central streak. The palpi are dark, and the legs dark with pale spots, which seem to have been covered with white hairs. The falces are light brown, and, faintly iridescent.

We have two males from Mr. Quekett, Durban.

***Heliophanus Marshii* sp. nov.**

Plate XX, figs. 4, 4a.

♂. Length 4.5 mm. Legs 14 $\overline{23}$ , first pair stoutest.

The front eyes are near together in a slightly curved row, the middle being about twice as large as the lateral.

In our specimen the cephalothorax is dark brown, rubbed almost bare, but showing some thinly set white scales on the sides. The abdomen is black, encircled by a pure white band, and having three pairs of white spots on the back. The venter has a thin covering of white hairs. The legs are brown, plainly lighter in color than the body. The palpus is darker brown. The falces project slightly, are rather long, and are brown in color.

This species is named for Prof. Marsh of Ripon, Wisconsin. We have one male from Camp's Bay, Cape Peninsula, collected by Mr. Treleaven.

***Heliophanus Beardii* sp. nov.**

Plate XX, figs. 6, 6a.

♀. Length 6 mm. Legs 4312, nearly equal in stoutness.

The cephalothorax is darker than the abdomen, bronze-brown in color, and has a narrow white transverse band behind the dorsal eyes. There is a narrow white band around the margin of the cephalothorax, and above this, on the cephalic part, the sides are white as far back as the transverse band. The abdomen is bronze-brown with metallic scales. There is a white basal band which runs back on the sides beyond the middle of the abdomen and is thickened at the ends. Further back

on the sides, just in front of the spinnerets, is a pair of white spots. These are almost united by a narrow white line. On the middle of the dorsum are two white bars which are sometimes broken. These extend downward, on the sides, to meet the basal band. The palpi are dark at the proximal end, and light yellow in the distal half. The legs have the femora dark. The patellae and tibiae are light yellow above with a longitudinal dark band on each side. This coloring is most distinct on the first and second pairs. The metatarsi and tarsi are light. All the legs have white hairs.

This species has been collected at Signal Hill by Mr. Purcell and Mr. Lightfoot, at Bergvliet and Cape Town by Mr. Purcell, and at Camp's Bay and Retreat Flats by Mr. Treleaven. It is named for Mr. H. Beard, who has collected Attidae at Wynberg.

***Heliophanus deamatus* sp. nov.**

Plate XX, figs. 3-3c.

♂. Length 5 mm. Legs  $14\overline{32}$ , first pair stoutest.

We have but one specimen. It is black and seems to have been covered with yellow hairs which have a slight metallic luster. The margin of the cephalothorax has a pure white line. The clypeus is narrow and bare. The legs are dark, the tarsi and metatarsi being lighter. The falces are vertical and rather long and brown in color. The palpus has a long curved apophysis on the femur and a shorter one on the tibia, the tarsus being covered with yellowish hairs.

Collected by Mr. Marshall in Mashonaland.

***Heliophanus clarus* sp. nov.**

Plate XXI, figs. 6, 6a.

♀. Length 4.5 mm. Legs  $43\overline{12}$ , pale, with fine black spines, and equally thick.

The markings are black on a ground color of snow-white hairs, the cephalothorax having two conspicuous black spots in

the middle of the thoracic part and, around the margin, a black band which widens out at the posterior end. When the hairs are rubbed off the eye-region is seen to be jet-black, and the other parts reddish-brown. Around the eyes, and on the retreating clypeus are some bright reddish hairs. On the abdomen there is a wavy black band down each side of the dorsum, and, between these, an elongated spot on the anterior part, another at the spinnerets, and a pair of black spots just behind the middle. A black band passes around the base and ends, on each side, in a short oblique band, and parallel with this, a little further back is another short band. At the posterior end there is, on each side, a pair of short transverse black bands. These marks are much blacker and more distinct in one specimen than in the other. Where the white hairs are rubbed off from the other parts the color is pale brown. The venter is pale brown with a spear-shaped black mark at the posterior end. One specimen has also a pair of oblique spots, one on each side of the spinnerets. The legs are pure white with delicate black spines, and the palpi and falces are yellowish. The sternum is black and the mouth-parts light brown.

We have two females from Salisbury, Mashonaland, sent to us by Mr. Marshall.

***Heliophanus Prattii* sp. nov.**

Plate XX, figs. 7-7b.

♂. Length 3 mm. Legs 1432, femur of the first thickened.

Of this very brilliant little species we have but a single specimen, which has suffered from rubbing. The integument is black, covered with bright red and green metallic scales, varied by snow-white spots and lines, the pattern being indistinguishable. The legs are black as far as the tarsi, which are light brown. On the upper part of each leg are two fine white lines running throughout its length. The palpus is black with a line of white hairs above. The clypeus and the weak parallel falces

slant backward. The femur of the palpus has a double apophysis.

We have one male from Willowmore, South Africa, sent to us by Dr. Brauns.

***Heliophanus Marshallii* sp. nov.**

Plate XX, figs. 5-5b.

♂. Length 5 mm. Legs 4132, nearly equal in thickness.

This species has a long, straight, stout apophysis on the patella of the palpus.

In our specimens the cephalothorax, which has a black and glistening integument, has been rubbed, so that only a few white hairs on the thoracic part, and in a band around the sides, remain. The abdomen has three white bands, one in the middle and one on each side, all reaching the spinnerets. The spaces between the bands are black but seem to have been covered with yellow hairs. The legs are dark brown except the tarsi, which are yellow. The palpus is black with snow-white hairs. The falces are short, and moderately stout, and are brown in color.

*H. Marshallii* is almost exactly like *H. debilis* E. S. and *H. patellaris* E. S. in color, and each of these species has a patellary apophysis. In *debilis* and *patellaris*, however, the apophysis stands out at a wide angle, while in *Marshallii* it extends in a line with the palpus. *Marshallii* is larger than the other species and has dark legs with yellow tarsi. In *debilis* the legs are all light yellow, and in *patellaris* they are either entirely yellow, or entirely brown.

This species is named for Mr. Guy A. K. Marshall, who has made most valuable investigations in Mimicry and Warning Colors. We have two males from Durban.

***Heliophanus modicus* sp. nov.**

Plate XX, fig. 2.

♀. Length 5 mm. Legs 4312̄.

The ground color is black on the cephalothorax, brown on the abdomen. The cephalothorax has white bands low down on the sides, while the upper surface seems to have been thinly covered with yellowish-white hairs. The rings around the eyes of the front row are white. The abdomen has a wide herring-bone stripe and an encircling band, white. The legs and palpi are pale brown. The falces are weak and vertical, and dark brown in color. The very narrow clypeus is marked by a white line.

We have several females from Algoa Bay and Durban.

***Almota* gen. nov.**

Plate XX, figs. 1-1c.

The cephalothorax is high with the sides parallel and vertical in front, and widening out very slightly behind. The cephalic plate is not inclined, but the thoracic part slopes rather steeply from the third row of eyes. The quadrangle of the eyes is one-third wider than long, is wider behind than in front and occupies fully one-half of the cephalothorax. The front eyes are rather large and close together, in a straight row, the middle being twice as large as the lateral. The second row is halfway between the other two, and the dorsal eyes, which are uncommonly large, form a row as wide as the cephalothorax at that place. The clypeus is only a line. The sternum is truncated in front. The anterior coxae are separated by fully the width of the labium, which is about as wide as long. The first leg has three pairs of spines under the tibia and two pairs under the metatarsus. The spines on the other legs are sparse and weak, the metatarsi of the third and fourth having apical circles. On the tibiae of these legs the circles are incomplete. The falx has a single tooth on the lower margin.

This genus differs from *Cosmophasis* in having the front

eyes relatively much larger, and close together, instead of separated, with the middle less than twice as large as the lateral. In *Cosmophasis*, moreover, the dorsal eyes are smaller than the lateral and form a row plainly narrower than the cephalothorax, which widens out below.

***Almota Quinii* sp. nov.**

Plate XX, figs. 1-1e.

♂. Length 3.5 mm. Legs 4132, first a little the stoutest.

This species has the body and the palpi dark, while the legs are pale. Our specimen has been rubbed. The cephalothorax seems to have been covered with short yellow hairs excepting on the face, under the lateral eyes, where the hairs are white. The abdomen is cylindrical, and has a wide band of yellow hairs down the middle and a wide black region on each side. The whole seems to have been covered with silvery iridescent scales, which extend on to the venter. The palpi are black with white hairs. The legs are pale yellow, the first pair having a smoky brown band underneath the femur and along the outer side of the patella, tibia and metatarsus. The falces are small, and are pale brown in color.

We have one male from Cape Colony, Africa.

***Cyllobelus australis* sp. nov.**

Plate XXI, figs. 2, 2a.

The abdomen is dark, prettily marked with white dots and lines.

♀. Length 5 mm. Legs 4132, first pair somewhat stouter than the others. The fourth exceeds the third by the tarsus and nearly all of the metatarsus.

The cephalothorax is moderately high, and is narrow in front, widening from the second row of eyes to a point a little in front of the posterior end, and well behind the dorsal eyes. The cephalic part is but slightly inclined, while the thoracic falls in a rounded slope from the third row of eyes. The quad-

range of the eyes occupies two-fifths of the cephalothorax. The anterior eyes are close together in a curved row, the middle being less than twice as large as the lateral. The second row is a little nearer the first than the third which is nearly as wide as the cephalothorax at that place. The sternum is oval. The first coxae are separated by more than the width of the labium, which is about as wide as long. The falces are vertical and parallel, with a single tooth on the lower margin.

The clypeus is dark, edged with short white hairs. Under each lateral eye are two fine white lines running horizontally outward, which have a very ornamental effect. The cephalothorax is dark brown with a covering of yellowish hairs and a pure white marginal band. The abdomen is covered with metallic yellowish scales, which give a dark effect, and rather long brown hairs, the pattern being in snow-white spots and dashes. There is a spot in the middle of the front end, with some oblique lines a little further back, on each side. Down the length of the dorsum are two rows of white dots made up of six pairs. On each side, halfway of the length, is a triangular spot, pointing backward, and further back, another white spot, so low down as to be nearly invisible from above. The palpus is dark brown with white spots on the patella and tarsus. The legs are brown, the first pair darker than the others and having three bright white spots on the inner side, one on the patella, one at the distal end of the tibia, and one on the tarsus. The under parts are of a dull silvery color.

We have one female from Algoa Bay, sent by Dr. Brauns.

***Cyllobelus chionogaster* E. S.**

Plate XXI, figs. 1-1c.

Length, ♂ 4.5-6 mm. ♀ 6-7.3 mm. Legs, ♂ 4132, first pair darkest and stoutest, with fringes; ♀ 413̄2, femur of the first with a small tuft of dark hairs at the distal end.

The cephalothorax has rufous hairs above and a wide snow-white band which runs across the clypeus and along the sides, but is broken behind. The abdomen is glistening bronze-brown on the dorsum, whitish on the lower sides. The male has a



single white spot above the spinnerets. In the female there are some white scales at the front end, one, two, or three pairs of oblique white bars on the middle of the back, a white spot on each side, low down, at the posterior end, and a single white spot just in front of the spinnerets. In the male the first legs are dark, excepting the metatarsus and tarsus which are pale, and there is a single fringe of dark hairs on the femur and a double fringe, also dark, on the tibia. The other legs are pale, more or less distinctly marked, with two longitudinal dark lines. In the female the legs are of medium brown. The falces project a little, and are brown in color, as are the mouth-parts and sternum, but the coxae are pale.

This species, which closely resembles *C. australis*, is very common in South Africa., and we have many specimens from Algoa Bay, Cape Colony and Mashonaland.

***Saitis sapiens* sp. nov.**

Plate XXI, figs. 5, 5a.

♂. Length 4.8 mm. Legs 1342, first pair stoutest, second next.

The cephalothorax is high, with the cephalic plate inclined forward. The thoracic part slopes very little in the first half, and then much more abruptly. The sides slant outward but little, and are plainly widest behind the dorsal eyes. The quadrangle of the eyes is a little wider in front than behind, is one-fourth wider than long, and occupies two-fifths of the cephalothorax. The front eyes are a little separated and form a curved row. The lateral eyes are rather small for this genus, but are more than half as large as the middle eyes. The second row is a little nearer the first than the third, and the third is almost as wide as the cephalothorax. The sternum is rounded behind and truncated in front. The anterior coxae. are separated by more than the width of the labium, which is as wide as long. The clypeus is one-half as wide as the middle eyes. The falces are vertical, and rather long and stout.

The upper part of the cephalothorax is covered with bright red hairs. A curved white band, just below the eyes, runs

along the upper sides and crosses the thoracic part, and from this a central white band passes forward on the cephalic plate. The hairs around the eyes are very bright. In our specimens the lower sides of the cephalothorax are rubbed bare, excepting a white band around the margin. Some white hairs are left on the clypeus, and on the front faces of the falces. The abdomen has a wide white band at the base which curves downward over the sides, and a central white band connects this with a second and third curved transverse white band. On either side is a black band, sometimes broken into spots, and all around and among the black and white markings, and covering the back of the abdomen behind the middle, are bright red hairs. The upper surface of the palpus is covered with white hairs. The legs are dark with some pale spots, and have a good many white and red hairs.

We have seven males from Mashonaland, sent by Mr. Marshall. The figure shows the spider as it appears under alcohol.

***Saitis Leighii* sp. nov.**

Plate XXI, figs. 4, 4a.

The cephalothorax is longer and heavier than the abdomen, and both cephalothorax and abdomen, are darker in the middle than on the sides.

♀. Length 6.5 mm. Legs 1342, first pair heaviest, second next.

The cephalothorax is high and convex, rounding from the dorsal eyes forward to the first row, and backward through half the thoracic part, the posterior slope, behind this point, being much steeper. The sides are widest at about the point of the third row of eyes, where they are parallel for a little distance, the contraction in front and behind, being inconsiderable. The quadrangle of the eyes is one-third wider than long, is wider in front than behind, and occupies about two-fifths of the cephalothorax. The front eyes are large and close together in a curved row, the middle eyes being less than twice as large as the lateral. The clypeus is two-thirds as wide as the middle

eyes. The second row is halfway between the first and the third, and the third is nearly as wide as the cephalothorax. The falces are moderately long and stout and the labium is wider than long. The first leg has three pairs of spines on the tibia and two pairs on the metatarsus.

The cephalothorax has the cephalic plate and the lower sides black, and the thoracic part reddish brown, while the upper sides are covered with a mixture of white and red hairs. The front eyes are surrounded by rings of red hairs, and above this row is a band of white hairs. The middle of the abdomen is occupied by a wide, dark brown, velvety band which has a chevron in the posterior part and ends in a point at the spinnerets. The sides are covered by wide bands of white hairs with which some bright red hairs are intermixed. The legs are of a medium brown color, those of the first pair being darkest, and having the femoral joints black.

We have a single male sent to us by Mr. George F. Leigh, from Durban, Natal.

***Saitis mundus* sp. nov.**

Plate XXI, figs. 3, 3a.

♂. Length 4.3 mm. Legs  $\overline{3142}$ , nearly equal in thickness.

The cephalothorax is high and slopes in both directions from the dorsal eyes, the cephalic slope being more rounded than the thoracic. The sides, which are vertical and parallel in front, widen out at a point well back of the dorsal eyes. The quadrangle of the eyes is one-fourth wider than long, is wider in front than behind, and occupies two-fifths of the cephalothorax. The front eyes are large and close together, in a straight row, the middle being less than twice as large as the lateral. The second row is halfway between the first and the third, and the third row is as wide as the cephalothorax at that place. The sternum is truncated in front, and the anterior coxae are separated by more than the width of the labium, which is as wide as long.

The cephalothorax has a black ground with a covering, above, of rich red hairs. The thoracic part has a yellowish spot just

back of the dorsal eyes, and the sides are covered with yellowish-white hairs. Around the front eyes are rings of red hairs, and the clypeus has a tuft of white hairs in the middle. The abdomen is dark on the sides and has a pale band down the middle, the whole being covered with yellow hairs. In a rubbed specimen there is a double row of dark dots down the middle band, and the base and sides have streaks of black which curve up over the posterior part to form chevrons on the dorsum. The legs are pale with dark rings. In one specimen the first pair has a black streak along the inner faces of the metatarsus, tibia, and distal end of the patella. The palpus is light colored with yellow hairs.

We have two males from Gazaland, Mashonaland, sent by Mr. Marshall.

***Pochyta solers* sp. nov.**

Plate XXII, figs. 1-1b.

♂. Length 4 mm. Legs  $\overline{1432}$ , first pair slightly stoutest.

This is a dark species the legs being black with pale marks.

The anterior eyes form a straight row, the middle being twice as large as the lateral. The sternum is narrow behind and broad in front where it is widely truncated. The front coxae are separated by more than the width of the labium. The tibia of the first leg has three pairs, and the tibia of the second two pairs of spines besides laterals. The metatarsus of the first and second have two pairs and laterals.

Our single specimen is somewhat rubbed, especially on the cephalothorax, which appears black, with a white band around the margin and reddish hairs about the eyes. The retreating clypeus has some white hairs. The abdomen is slender and pointed, the color being dark with a covering of dull golden metallic scales. At the middle point of the back is a transversely elongated white spot. The lower sides are whitish. The venter and sternum are black. The falces are brown in color and are oblique and divergent, with a curved fang. The palpus is dark with snow-white hairs on the upper side of the patella. In the first and second legs the coxa and trochanter

are brownish, in the others, white. The first leg is black excepting a brownish spot in the middle of the tibia, and the proximal half of the metatarsus, which is white. In all the other legs the proximal half of the femur, a spot in the middle of the, tibia, and the metatarsus and tarsus are white, the other parts being black.

We have one male from Gazaland, Mashonaland, sent to us by Mr. Marshall.

***Parajotus* gen. nov.**

Plate XXII, figs. 2-2d.

The cephalothorax is rather high and convex, the highest point being a rounded elevation in front of the dorsal eyes. From this point it falls, in a very long slope, to near the posterior end, the upper surface being narrowed behind to form a horse-shoe shaped plate from which the thorax slopes on the sides and behind. The cephalic part is also inclined forward. The sides are a little contracted in front and behind, the widest point being behind the dorsal eyes. It is but little wider below than above. The quadrangle of the eyes is one-third wider than long, is wider behind than in front, and occupies two-fifths of the cephalothorax. The front eyes are all large, and form a straight row in which the middle eyes are close together and plainly less than twice as large as the lateral, which are a little separated from them. The second row is halfway between the other two. The dorsal eyes are as large as the lateral and form a row which is nearly as wide as the cephalothorax. The males, as in *Tusitala*, have ridges of long, stiff hairs on the front of the falces. There are both inferior and lateral spines on all the legs, the tibiae of the first and second having three pairs below, and the metatarsi two pairs, besides lateral spines. The sternum is oval. The coxae are separated by fully the width of the labium, which is a little longer than wide.

*Parajotus* resembles *Jotus* and the allied genera but differs in having the quadrangle of the eyes plainly wider behind than in front.

***Parajotus obscuroides* sp. nov.**

Plate XXII, figs. 2-2d.

The femur of the first leg is dark and iridescent, in contrast with the other joints.

♂. Length, 6.5-8 mm. Legs  $\overline{1432}$ , nearly equally stout.

Our specimens are badly rubbed, so that we can form no clear idea of the markings. There are some reddish hairs left around the eyes and on the cephalic plate. On the sides of the thoracic part are wide bands of white hairs, sharply outlined by black bands above and below, and ending abruptly at the dorsal eyes, while the hairs on the sides of the cephalic part are black. The clypeus is brown and is one-third as wide as the large middle eyes. The falcies are long, stout, projecting, brown in color, and have, on the front faces, ridges of long stiff black hairs. The abdomen has some long white and reddish hairs at the front end, and has white bands on the sides. In the middle there seems to have been a band of reddish hairs running backward for two-thirds the length of the dorsum, and behind this are indistinct dark and light chevrons. The sides are more or less streaked. The first legs have the femoral joints dark and iridescent in whole or in part, making a contrast with the other joints, which are much lighter, and this is true in a less marked degree of the second legs. The first and second pairs have fringes of black hairs under the femur and of light yellow hairs under the patella and tibia. The third and fourth legs are light yellow with dark spots. The palpi are usually dark and are covered with long stiff black hairs.

We have several males from Durban.

***Euophrys Purcellii* sp. nov.**

Plate XXII, figs. 5, 5a.

The males of this species have, under alcohol, a central light colored longitudinal streak throughout the length of the cephalothorax, and a wide light band on the abdomen.

♂. Length 3.6 mm. Legs  $\overline{1423}$ , first pair plainly stoutest, second next.

The distinct light colored longitudinal band which is seen down the middle of both cephalothorax and abdomen when the spider is under alcohol, disappears when it is dry. The whole integument is brown with a slight covering of white or yellowish hairs on the upper surface, growing thicker on the sides of the abdomen. The retreating clypeus is covered thickly with bright yellow hairs which grow also on the sides as far around as the third row of eyes. The falces are parallel, short and rather stout. Their color is brown, and they have fine, transverse, white lines across the front faces, each line being made of a succession of single hairs. The palpi are brown, the tarsi a little paler than the other joints and covered with white hairs. The legs are brown, lightest on the metatarsi and tarsi. The first and second legs show a bluish, iridescent sheen on the patella and tibia, these two joints and the femur being much stouter than the metatarsus and tarsus, especially in the first leg. The front eyes form a straight row, the middle being less than twice as large as the lateral.

We have two males from Signal Hill, Cape Peninsula, collected by Mr. R. M. Lightfoot. The species is named for Mr. W. F. Purcell, of the South African Museum, who, has made valuable contributions. to the knowledge of Arachnology in South Africa.

***Euophrys Simonii* sp. nov.**

Plate XXII, figs. 4-4b.

♂. Length 5 mm. Legs  $\overline{43} \overline{12}$ , those of the first pair stoutest and having a double fringe.

The cephalothorax is moderately high and is narrow in front, widening rather sharply behind the first row of eyes to its widest point, at the third row. Behind this it contracts in a rounded line to the posterior end. The highest point is at the third row of eyes. from which the fall is rather steeper in front than behind. The front half of the thoracic part is convex and rounded. The quadrangle of the eyes occupies about two-fifths of the cephalothorax, is one-fourth wider than long, and is

plainly wider behind than in front. The eyes of the first row are rather large, the middle being less than twice the lateral, subtouching, and form a straight row. The second row is about halfway between the others. The third, is but little narrower than the cephalothorax. The sternum is rounded, and truncated in front. The anterior coxae are separated by a little less than the width of the labium, which is about as wide as long, and only half as long as the maxillae. The falces are long, oblique, and strongly divergent, with a long curved fang, and one strong tooth on the lower margin. They are light brown and iridescent.

We have but one specimen. There is a band of pure white hairs around the lower sides of the cephalothorax, a central white spot on the cephalic, and another on the thoracic part. The rest of the cephalothorax seems to have been covered with rufus hairs. The clypeus has long white hairs. The falces, pale brown in color, are nearly bare. The abdomen is rufus with a whitish band down the middle and one on each side. The legs and palpi are mottled with lighter and darker brown, and have a good many white hairs. The first leg has a black line on the upper face of the femur, and a fringe of mixed black and white hairs on each side of the femur, patella, and tarsus.

We have one male from Cape Colony, South Africa, sent to us by Dr. Brauns. The species is named for our friend M. Eugène Simon.

***Euophrys Leipoldtii* sp. nov.**

Plate XXII, fig. 6.

♀. Length 6 mm. Legs  $\overline{34} \overline{12}$ , nearly equal in thickness.

The cephalothorax is dark colored with wide white marginal bands on the sides which do not meet behind. The clypeus has white and red hairs which grow also around the eyes of the first row. A white band runs back on each side including the three lateral eyes, uniting with its fellow behind the dorsal eyes and extending for a short distance on the middle of the thoracic



part. The abdomen has a covering of red hairs, and a white basal band. The legs have the femora dark colored, as are also the patella and tibia in the first pair; the metatarsus and tarsus being light colored. The other legs have the patella and tibia barred with light and dark, while the metatarsus and tarsus are light. All the legs have short white hairs.

We have four females from, Clanwilliam, Cape Colony, collected by Mr. C. M. Leipoldt, for whom we have named the species.

***Euophrys infaustus sp. nov.***

Plate XXII, fig. 7.

♀. Length 5.5 mm. Legs  $\overline{4312}$ , first pair a little the stoutest.

The dark cephalothorax is covered with white hairs, while the abdomen is clothed with silky, golden hairs. There are three pairs of black dots on the back. The legs, clypeus and falces are brown with a good many short white hairs.

We have one female from Mashonaland, sent by Mr. Marshall.

***Mendoza Carlinii sp. nov.***

Plate XXIII, figs. 6-6c.

Length, ♂ 5.5 mm; ♀ 10.7 mm. Legs, ♂  $\overline{41\ 32}$ , ♀  $\overline{4312}$ . first pair stoutest.

This is a flat gray species with the light, foliated, abdominal band characteristic of the *Marptusa* Group.

The quadrangle of the eyes occupies one third of the cephalothorax. The tibia of the first leg has two pairs of spines with laterals, the tibia of the second, two serial spines. The metatarsi have two pairs in both first and second.

In the male the cephalothorax has a dark background, with reddish hairs on the sides and bright red hairs around the eyes. There are three longitudinal white streaks on the cephalic part, and on the thoracic there is a large central patch of white. The band around the margin and across the clypeus is pure white, and there is a bunch of white hairs at the insertion of the falces.

The abdomen has a scalloped white band low on the sides, which is edged, above, with velvety black. The upper part of the back is covered with white and reddish hairs, the white ones concentrating to form a central patch at the front end, two curved bands in the middle, and a series of chevrons on the posterior part. The legs have patches of white and red hairs, and the upper surface of the femur of the palpus is covered with snow-white hairs.

In the female the cephalothorax is black with a snow-white band around the margin and a longitudinal white band on the thoracic part. The abdomen is black with a wide longitudinal, foliated band of mixed white and red hairs. On this band is a series of black chevrons. The legs are black with some short light-colored hairs. The palpus has the proximal end of the femur black, and the other parts light yellowish brown, with long, white hairs. The clypeus is dark and is almost hidden by the heavy, projecting, darkly iridescent falces. The under parts are brown excepting the sternum which is black, with long, yellowish-white hairs.

We have a male and a female from Mashonaland, sent by Mr. Marshall.

***Philaeus manicus* sp. nov.**

Plate XXIV, figs. 1, 1a.

♂. Length 8 mm. Legs  $\overline{1342}$ , stout and hairy.

In its general appearance this species strongly resembles *Phidippus*, but its characteristics bring it into the genus *Philaeus*. There is one conical tooth on the inferior margin of the falx.

The quadrangle of the eyes is one-fourth wider than long, is a little wider behind than in front, and occupies two-fifths of the cephalothorax. The front row is a little curved, all the eyes being small, the lateral being more than half as large as the middle and separated from them. The thoracic part is plane through half its length, and then falls. The second row of eyes is half way between the others, and the third is much narrower than the cephalothorax. The lip is longer than wide.

The whole spider is black covered with grayish-rufus hairs. There are some white hairs over the first row of eyes and on the clypeus, and the abdomen has stiff black hairs sprinkled over it. The first and second legs are black excepting the patellae, which are reddish. The third and fourth are covered with rufus hairs. The palpi are black excepting the tarsi, which are brown with white hairs. The falces are black, without iridescence.

We have one male from Manica Mts., Mashonaland, sent by Mr. Marshall.

***Dendryphantes Purcellii* sp. nov.**

Plate XXIV, figs. 11-11b.

Length, ♂, ♀, 4.5 mm. Legs, ♂  $\overline{1423}$ , ♀  $\overline{41} \overline{23}$ , first pair stoutest, especially in the male.

The general color is bright rufus, resulting from a mixture of white and yellowish-red hairs. When these are rubbed off the cephalothorax is dark, almost black on the sides, golden, with two black spots, on the eye region, while the abdomen is light colored with dark specks and blackish lines. In perfect specimens the cephalothorax is bright rufus with a band of snow-white hairs around the margin; these hairs grow longer on the clypeus. The abdomen is rufus with a whitish basal band, two longitudinal white bands on the anterior part and three pairs of white transverse bands, alternating with black, behind. The legs are yellowish in the female and brown in the male, the first and second pairs much darker than the others.

The tibia of the first leg has three pairs of spines; of the second, two uniserial and two subapical spines. The metatarsi of the first and second have two pairs. The palpi are yellow in the female and dark brown in the male. The falces are small and vertical in both sexes.

We have two males and two females from Bergvliet, Cape Peninsula, sent by Mr. W. F. Purcell, for whom we have named the species.

***Baryphas ahenus* E. S.**

Plate XXIV, figs. 2-2b.

Length, ♂ ♀, 6-10 mm. Legs, ♂  $\overline{1342}$ , stout, black and hairy, ♀  $\overline{3412}$ .

This species varies greatly in color, size and marking. The ground color is black. The male has the upper part, the margin of the cephalothorax and the clypeus covered with white scales, sometimes tinged with red. The falces are dark and iridescent. The female has the whole cephalothorax, the clypeus, the palpi, the front faces of the falces, and a great part of the first and second pairs of legs covered with red scale-like hairs, the front face of the femur, in the first and second legs of both male and female, being sown with tiny white scales. The abdomen is dark with white, reddish, or red marks, consisting of a central spot, a band around the front end which sometimes runs halfway, and sometimes all the way along the sides, and two pairs of bars on the sides, continuous with the encircling band, one at the middle point and one farther back. These bars are sometimes transverse, and sometimes oblique, and often one pair is transverse and the other oblique. The legs are black with black hairs, which are especially long on the first and second pairs.

We have many specimens from Mashonaland, Natal, and Cape Colony.

***Hyllus Treleavenii* P.**

Plate XXIII, figs. 3, 3a.

♀. Length 13 mm. Legs  $\overline{3412}$ .

In our specimen the cephalothorax is rubbed almost bare, showing the integument to be dark red on the sides and lighter above. There seem to have been many light yellow and reddish hairs on the sides and over the back. Around the eyes of the first row and on the clypeus are long reddish hairs, and white hairs with a yellow tinge cover the front faces of the falces. The abdomen has a covering of short reddish-gray hairs with long white hairs scattered over it. Down the mid-

dle is a herring-bone stripe of white, and a white band around the base is continued on the sides to the middle point, where it ends in a conspicuous somewhat triangular white spot. Further back, on each side, is a crescent-shaped white spot. The legs are all hairy, especially the first pair, which has long black and white hairs below. Their general color is dark, but the metatarsi and tarsi of the first legs, as well as the distal ends of the metatarsi and the whole of the tarsi of the third and fourth, are lighter colored.

We have a single female from Mashonaland sent by Mr. Guy A. K. Marshall. We have named the species for Mr. F. Treleaven of Cape Town.

***Hyllus moestus* sp. nov.**

Plate XXIII figs. 5, 5a.

♀. Length 14.3 mm. Legs  $34\overline{12}$ , first and second stoutest.

The color of the integument of the cephalothorax is bright red on the sides, where there are alternating bands of black and yellowish white hairs, and dark red on the upper surface, with black spots around the eyes. Down the middle of the thoracic part is a wide band of yellow hairs, and long yellow hairs cover the clypeus, falces, and palpus. The front end of the abdomen is streaked with black and yellow. Down the middle the color of the integument is bright red, and on this band are four pairs of oblique yellowish spots (the hinder ones uniting to form chevrons), from the center of each of which there comes off a long white bristle. The sides are black, each with four large yellow spots. The legs are dark reddish-brown covered with short black and yellow hairs and long whitish hairs. The venter is of a uniform light brown color.

We have one female from Durban, sent by Mr. Quekett.

***Hyllus perspicuus* sp. nov.**

Plate XXIII, figs. 2-2b.

Length, ♂ 8-10.5 mm; ♀ 9-10.5 mm. Legs, ♂ 1342, first pair plainly longest; ♀ 3412.

We have one, very dark female from Durban in which the markings are perfectly preserved. The cephalothorax is black with narrow white bands around the lower sides, which do not meet behind. There is a white bar just below each dorsal eye, and a median white band beginning between the dorsal eyes and passing back for two-thirds the length of the thoracic part. There is a white spot near the middle of the cephalic part, and a white patch in front of each dorsal eye. Over the first row of eyes are some grayish white hairs. The clypeus has whitish hairs and under each lateral eye are three white lines, alternating with dark lines. The abdomen is velvety black with a white median spot at the front end and a pair of longitudinal snow-white lines on the anterior part of the dorsum. Behind this is a series of four white spots. In some lights the abdomen shows green reflections. Each side has a short oblique white line in front and a scalloped white band behind. The legs are dark with longitudinal white lines.

Our other specimens, which are more or less rubbed, have the black intermixed with dark reddish-brown. In the male the white bars below the dorsal eye are continued and meet on the thoracic part. The abdomen is dark brown or black and has a broken white band down the middle, which, in the females, forms white chevrons alternating with black ones. The falcies are heavy, projecting, dark reddish-brown in color, with some short white hairs. The palpus is dark, that of the female having a bunch of white hairs at the tip.

Besides the female from Durban we have three specimens from Mashonaland and two from Zanzibar, the latter being the larger.

***Hyllus natalii* sp. nov.**

Plate XXIII, figs. 4, 4a.

♀. Length 12 mm. Legs 3412, all stout and rather hairy.

The cephalothorax is reddish-brown with black spots around the eyes. The sides are thinly clothed with white hairs and there seems to have been a median white band on the thoracic part. On the clypeus, falces and palpi are long whitish hairs. The abdomen is black with a whitish band down the middle, on which is a pattern in fine black lines. On each side, are three yellowish-white spots. The legs are dark brown, with a good many long white and black hairs. There are ridges of black hairs under the tibia in the first and second. The venter is black in the middle, with a light band on each side.

The dark venter in *natalii* and the light venter in *moestus* distinguish these two species from each other. In the female of *perspicuus* the venter is light with a dark line down the middle, and in *Treleavenii* it is covered with silvery hairs.

We have one female from Natal, sent by Mr. Quekett.

***Modunda aperta* sp. nov.**

Plate XXVI, figs. 9, 9a.

♂. Length 6 mm. Legs  $\overline{1342}$ , first heavily thickened.

The quadrangle of the eyes is about one-fourth wider than long, is a little wider behind than in front, and occupies only two-fifths of the cephalothorax. In the type of this genus the quadrangle occupies about half of the cephalothorax. The cephalothorax is long, rather low, and very flat, the sides rounding out slightly from in front backward and from above below. The first row of eyes is straight, the eyes being close together; the middle nearly three times as large as the lateral. The second row is a little nearer the first than the third. The third row is a little narrower than the cephalothorax. The sternum is attenuated in front. The anterior coxae are separated by the width of the labium, which is about as wide as long. The

falces are thick, vertical and parallel, with small fangs, and have a single conical tooth on the inferior margin.

This is a slender, brilliant species. The ground color is black with iridescent reflections, and the markings are formed of thick white scales which are also iridescent. The cephalic part is covered with these scales and there is a central longitudinal band on the thoracic part. A band in the middle of each side extends from the lateral eye halfway through the thoracic part. The abdomen, which is narrow and tapering, has a central band throughout half its length, from the end of which a bright pink and green iridescent band extends to the spinnerets. On the sides are two or three parallel pairs of oblique white bands, the ends of the first pair meeting the central band at an angle, at the front end of the abdomen. On the sides of the iridescent band which occupies the posterior half of the dorsum are two pairs of transversely elongated spots, which are pure white, without iridescence. The external spinnerets are long and rather hairy. The clypeus has some long white hairs. The palpi are covered with white, scales above. The legs are dark with many patches of white iridescent scales. In the third and fourth pairs the tarsi are pure white tipped with black. The first leg has the femur, patella and tibia much enlarged, and the patella, tibia and tarsus have a short fringe of black and white hairs below. Under the tibia are three pairs of stout spines, and under the metatarsus, two pairs. The third and fourth pairs have some small spines, unlike the type of this genus, *M. phragmitis*, in which these legs are unarmed.

We have two males and one female from Gazaland, Mashonaland, sent by Mr. Marshall.

***Pseudicius Braunsii* sp. nov.**

Plate XXVI, figs. 1, 1a.

♂. ♀. Length 5 mm. Legs 1432, first much the stoutest in both sexes, and longer in the male than in the female.

The cephalothorax is dark with a white marginal band which crosses the clypeus. Above this, on the sides, are reddish hairs.



There is a median longitudinal white band on the upper surface of both cephalic and thoracic parts. The abdomen has a central white band, on each side of which are reddish brown bands, and below these again, white bands. The legs are all dark colored except the tarsi which are light. The first leg in the female has the femur, patella and tibia very much enlarged, with one or two short spines under the tibia. In the male there is one spine on the tibia, and two pairs of spines under the metatarsus.

We have one male and one female from Willowmore, Cape of Good Hope, sent to us by Dr. Brauns.

***Pseudicius africanus sp. nov.***

Plate XXVI, figs. 2, 2a.

♀. Length 5.5 mm. Legs -432. The first pair, which is lacking, was probably the longest.

The cephalothorax is covered with white hairs. The abdomen is also white with three pairs of large dark brown spots which grow smaller toward the posterior end. The legs are light yellow.

We have one female from Cape Colony, sent to us by Dr. Brauns.

***Pseudicius bipunctatus sp. nov.***

Plate XXVI, figs. 3, 3a.

♀. Length 4.5 mm. Legs 4132, first pair stoutest.

The cephalothorax is low and flat, slightly wider in the thoracic than in the cephalic part. The front eyes are all separated and form a row that is curved downward, the middle being twice as large as the lateral. The second row is about halfway between the other two, and the third row is as wide as the cephalothorax. The tibia of the first leg has a single spine below. The metatarsus has two pairs and a lateral spine. The tibia of the second is unarmed. The metatarsus of the second has a row of two spines.

The cephalothorax is covered with mixed white and rufus hairs except two red bands, one on each side of the cephalic part. There is a black line around the margin. The hairs around the front eyes and on the clypeus are white. The abdomen has indistinct transverse bands of black alternating with bands of mixed white and rufus hairs. Near the posterior end is a large white spot on which is a dark crescent, and behind this are two oblique black spots each bearing a snow-white dot. The legs and palpi are pale brown with white hairs.

We have a single female from Willowmore, Cape Colony, sent by Dr. Brauns.

*Sittacus designatus* sp. nov.

Plate XXII, fig. 3.

♀. Length 5 mm. Legs  $\overline{4312}$ , first and second pairs stouter than the others.

The cephalothorax is only moderately high and is rather flat above, slanting off in front of the third row of eyes, and behind the middle of the thoracic part. It is long and has the sides nearly parallel, there being a slight widening from front to back. The front eyes are a little separated and form a curved row, the middle being less than twice as large as the lateral. The second row is slightly nearer the third than the first, and the third row is nearly as wide as the cephalothorax at that place. The tibiae of the first and second legs have three pairs of spines, and the metatarsi two pairs, without lateral spines. The labium is as long as wide.

The cephalothorax is dark colored, and, in our single specimen, is rubbed bare with the exception of the cephalic part, which seems to have been covered with bright red hairs. The coloring of the abdomen is very rich. The central part of the dorsum is black, with an intermixture of red hairs. A band which crosses the anterior end and runs back on each side beyond the middle, a slender central longitudinal line on the anterior part, and a pair of spots at about the middle point of the dorsum, are all light yellow edged with red, and on each side of the spinnerets is a bright snow-white spot. The legs

have the proximal joints dark brown, and the metatarsi and tarsi lighter. The palpus has nearly all of the femur dark brown, but the very end of this joint, and the patella, tibia and tarsus, are light yellow. There are white hairs on all the joints, but on the tarsus these are found only on the outer side, while within, and at the end, there is a short fringe of black hairs.

The falces are parallel and moderately long and stout, dark and glistening in color. The clypeus is rather wide, and slants backward. The first row of eyes is slightly curved, the middle being less than twice as large as the lateral.

We have one female from Willowmore, Cape of Good Hope, sent to us by Dr. Brauns.

We put this, and the following species, into the genus *Sittacus* with some hesitation, since the inferior margin of the falx is armed with a conical tooth.

***Sittacus Uphamii* sp. nov.**

Plate XXIII, figs. 1-1c.

Length, ♂ 5.5 mm; ♀ 7.5 mm. Legs, ♂  $\overline{1432}$ , first pair much the longest but scarcely stouter than the others; ♀  $\overline{4312}$ , first slightly stoutest.

The cephalothorax is rather high. The cephalic part is inclined. The thoracic is nearly level for the first half, and then slopes rather steeply. The sides round out rather widely behind. The front eyes form a straight row, the middle being less than twice as large as the lateral. The second row is halfway between the others and the third row is nearly as wide as the cephalothorax at that place. The maxilla are narrowed and bluntly pointed on the outer edge. The labium is a little longer than wide. The tibiae of the first and second legs have three pairs of spines below besides laterals, and the metatarsi have two pairs and laterals.

So far as can be judged from our specimens the male has a dark cephalothorax with bright yellow or rufous hairs on the sides and around the eyes and a longitudinal band of white hairs down the middle of the thoracic part. The abdomen is

of a light brown color and has a series of dark brown chevrons, not formed by hairs, on the posterior half, while the anterior part has a dark region on each side, with a pale central band between. In one specimen these dark regions are reduced to outlines, and two pairs of black dots appear in the middle. On the sides the light ground color is speckled with brown. Over all is a sparse growth of rather long pale hairs. The legs are light colored with a smoky brown tinge on the femur, tibia and metatarsus of the first. The palpus is brown with light hairs. The clypeus has a border of short white hairs. The falces are oblique and rather long, of a dark brown color, with some whitish scales.

In the female the upper surface of the cephalothorax is covered with brilliant, golden-red hairs, and the sides with pale yellow hairs. The central band is pale yellow, and is prolonged on to the cephalic part in a long point. The hairs around the eyes are yellowish-white. The abdomen has a pale brown ground color and is covered with a rather indistinct pattern of bright red spots and white streaks, all formed of hairs, this being, probably, the condition of the males also, when well preserved, since the red spots follow the pattern of the dark parts on the abdomen of the male, although the chevrons on the posterior part are not distinct. The legs and palpi are light brown. The falces are vertical, and paler than in the male. The hairs on the edge of the clypeus are long and white.

We have a male from Kalk Bay Mountains, Cape Peninsula, collected by Mr. R. M. Lightfoot, a second male from Wynberg, Cape Peninsula, collected by Mr. H. Beard, and a female from Newlands, Cape Peninsula, collected by Mr. W. F. Purcell.

***Bianor rusticulus* sp. nov.**

Plate XXIV, fig. 12.

♀. Length 6.3 mm. Legs  $\overline{1432}$ , all short, first plainly stoutest, second next.

The eyes of the first row are close together in a slightly curved line, the middle being twice as large as the lateral. The sec-

ond row is plainly nearer the first than the third. The quadrangle occupies three-fifths of the cephalothorax.

We have but one specimen, which is badly rubbed and has the abdomen crushed. The body seems to have been nearly covered with hairs of a reddish golden color. The cephalothorax has a white line around the lower margin. The face presents a rather striking appearance, since the golden hairs surround the eyes and form bands under the lateral eyes, while the lower part of the clypeus is covered with long white hairs which extend to the lower edges of the middle eyes, pass below the yellow bands as far as the second row, and grow down over the front faces of the falces. The palpus is brown covered with white hairs, and the legs are dark brown.

The tibia of the first leg has three long spines on the anterior side and two short ones on the posterior. The tibia of the second has a row of two spines. The metatarsi of the first and second have two pairs.

We have a single female, collected by Mr. R. M. Lightfoot, at Clanwilliam, Cape Colony.

***Valloa* gen. nov.**

Plate XXIV, figs. 9-9c.

The cephalothorax is high with the cephalic part plane and inclined forward, while the thoracic drops abruptly from the third row of eyes. From above, the cephalic part appears to occupy nearly the whole cephalothorax. The sides are vertical, and are widest at the dorsal eyes and narrow in front, the angle being rather sharp. The quadrangle of the eyes occupies plainly more than half of the cephalothorax, is much wider behind than in front, and at its widest point is from one-fourth to one-third wider than long. The front eyes are close together in a very slightly curved row, the middle being twice as large as the lateral. The second row is a little nearer the first than the third, and the dorsal eyes are placed on the angles, forming a row as wide as the cephalothorax. The falces are short and vertical. The sternum is pointed behind and

truncated in front. The anterior coxae are separated by more than the width of the labium, which is wider than long and half as long as the maxillae, which are short. The tibia of the first leg has three pairs of long, stout spines. The tibia of the second has a row of two or three spines. The metatarsi of the first and second have two pairs of long spines.

This genus differs from *Rhene* and *Homalattus* in the angular sides of the cephalothorax, in having the first row of eyes curved upward, the tibia of the first leg longer than the patella, and armed, and the metatarsus of the first leg longer than the tarsus. We have two species from Cape Colony, *V. modesta*, the type, and *V. elegans*.

***Velloa modesta*, sp. nov.**

Plate XXIV, figs. 9-9c.

♂. Length 3.2 mm. Legs 1432, first much the stoutest, with a brush of hairs under patella and tibia.

The cephalothorax seems to have been covered with short, scale-like bronze hairs. There are a few white hairs on the sides. The abdomen is rubbed. It is glabrous, of a bluish color, and seems to have had a large white spot at the base. The first leg is dark excepting the metatarsus and tarsus, which are light. There is a stout bunch of dark hairs under the patella and tibia. The tibia has a single row of three stout spines below, and the metatarsus two pairs of spines. The other legs have a longitudinal light streak on the upper surface of all the joints excepting the metatarsus and tarsus, with a dark streak on each side. The patellae and tibiae are also slightly darkened at the ends.

We have one male from Kalk Bay, Cape Colony, collected by Mr. Lightfoot.

***Velloa elegans* sp. nov.**

Plate XXIV, fig. 10.

♀. Length 3.6 mm. Legs 1423, first much the stoutest, with a fringe of black hairs under the femur, patella and tibia.

Both cephalothorax and abdomen seem to have been covered with rosy, iridescent scales. The first leg has the first three joints black and the metatarsus and tarsus yellow. There is a short black fringe on the upper side of the tibia, and a longer one under the femur, tibia, and patella. The tibia has a single row of three spines, and the metatarsus a double row of two spines below. In the other legs the femur is dark and the other joints light.

We have one female from Retreat Flats, Cape Colony, collected by Mr. Purcell.

***Homalattus Marshallii* sp. nov.**

Plate XXIV, fig. 6.

Length, ♂, ♀, 4 mm. Legs, ♂ 1423, ♀ 4132, first much the stoutest in both sexes.

The whole spider is covered with yellowish hairs. The first leg has a fringe of dark hairs under the tibia, where there are also two spines. The metatarsus of the first leg has two pairs of spines below, and is about as long the the tarsus. The male is easily recognized by the tibia of the palpus, which has a very long, blunt apophysis, on the sides and end of which are long, dark brown hairs. The middle eyes of the first row are subtouching, and the lateral are a little separated from them. This row is straight.

We have a male and female from Mashonaland, sent to us by Mr. Marshall.

***Homalattus similis* sp. nov.**

Plate XXIV, fig. 7.

♀. Length 5 mm. Legs 4132, first pair stoutest, with a slight fringe and two spines under the tibia.

This species is close to *Marshallii*, being covered with yellowish-white hairs, but around the eyes and on the clypeus the hairs are bright red, and the middle eyes of the first row are plainly separated from each other, while the lateral are widely separated from them. This row is straight.

We have a single female from Mashonaland.

***Homalattus obscurus* sp. nov.**

Plate XXIV, fig. 8.

♀. Length 4 mm. Legs 4123, first pair stoutest.

The cephalothorax is black, and the abdomen, legs, palpi, and falces, dark brown. The whole spider seems to have been covered with white hairs, which grow thick on the upper part of the falces and around the eyes. The metatarsus of the first leg has two spines below, but the tibia has neither fringe nor spine. The first row of eyes is slightly curved downward and the lateral are well separated from the middle eyes.

We have a female from Burgvliet Flats, collected by Mr. Purcell.

***Homalattus punctatus* sp. nov.**

Plate XXIV, figs. 5, 5a.

♀. Length 6-8 mm. Legs 4123, first pair very stout, with black fringes.

The body and legs are of a bright reddish-brown color, covered with golden hairs. On the cephalothorax these hairs are long and look as though they had been brushed upward and forward. Just above the first row of eyes is a narrow line of white hairs, but on the clypeus, and the front faces of the falces, they are yellow. On the abdomen the golden hairs are shorter.



There are three pairs of impressed dots down the middle, and the whole surface is covered with small white spots, each with a brown ring around it. These white spots are arranged in six curved transverse bands, with a few extra ones in the middle line. The legs and palpi are thickly covered with yellow hairs. The metatarsi and tarsi of the first pair are black. The first leg has the femur, tibia, and distal end of patella thickened, while the proximal end of the patella is slender. On the upper side of the femur is a single fringe which is white at the proximal end and black further along; and under the patella and tibia is a double fringe, yellow on the inner, and black on the outer side. In some specimens the yellow hairs on the legs and clypeus have a distinctly reddish tinge. The first row of eyes is straight, with the lateral well separated from the middle eyes.

We have five females from Durban, three sent by Mr. J. F. Quekett, and two by Mr. G. F. Leigh.

***Rhene Banksii P.***

Plate XXIV, figs. 4-4b.

♀. Length 4.5 mm. Legs 1423, first plainly stoutest, with short fringe of hairs on under side of patella and tibia.

The cephalothorax is a little wider than long, and slants upward from the anterior eyes. The quadrangle is plainly wider behind than in front, is much wider than long, and occupies two-thirds of the cephalothorax. The anterior eyes form a straight row, and are close together, the middle being less than twice as large as the lateral. The second row is close to the first. The sternum is widest in the middle, pointed behind, and truncated in front. The anterior coxae are separated by barely the width of the labium, which is longer than wide. The falces are short, vertical and parallel.

The cephalothorax is dark with two white spots on the cephalic plate just in front of the dorsal eyes, and a curved white band on the front part. There is a white longitudinal line on the middle of the thoracic part, and a good many white hairs are seen on the sides. The abdomen is dark, with six white

dots forming a curved line around the anterior end, and a transverse line of white dots in front of the middle of the dorsum. Near the posterior end is a large central white spot, from which a curved white line runs down on each side. There are some scattered white hairs on the clypeus. The first leg is dark with a short dark fringe under the patella and tibia, and a white spot at the distal end of the femur. The other legs have white rings at the ends of the joints, and are dark colored, excepting the tarsi and the proximal halves of the metatarsi, which are light.

This species is named for Mr. Nathan Banks. We have a single male from Cape Town, sent by Dr. Brauns.

***Rhene biguttata* sp. nov.**

Plate XXIV, figs. 3-3c.

A brown species with two white spots on the posterior part of the abdomen.

♂. Length 5.3 mm. Legs 1423, first pair much the stoutest.

The cephalothorax and abdomen are of a dark reddish-brown color. A small plate, on the front upper cephalic part, has the integument roughened by punctate indentations. This plate shows most distinctly under alcohol. There is a narrow line of white hairs above the first row of eyes, the sides are covered with white hairs, and a central white line runs up on the thoracic part between the dorsal eyes. The abdomen has whitish hairs around the front end. There are four indented dots on the dorsum, in front of the middle, and toward the posterior end are two large, round, snow-white spots, well separated from each other. The clypeus is brown, and is two-thirds as wide as the middle eyes of the first row. The falces are longer than the face, stout, and brown in color. The palpi are very dark brown. The first leg has the joints much thickened, especially the tibia and patella, which have, underneath, a long fringe of black hairs. This leg is very dark, especially toward the end. The other legs are reddish brown with rings of white hairs at the joints.

It may be that this specimen has lost, by rubbing, hairs which would form other marks upon cephalothorax and abdomen.

We, have one male, sent by Mr. Leigh, from Durban.

***Jasoda P. 1902.***

Plate XXVI, figs. 10, 10a.

The cephalothorax is high, with the sides nearly vertical and not far from parallel, although there is a slight swelling at the dorsal eyes, beyond which there is a very gradual contraction toward the posterior end. The cephalic part is a little inclined forward and the thoracic rounds off directly behind the dorsal eyes, falling more steeply after the first half. The quadrangle of the eyes occupies two-fifths of the cephalothorax, is nearly twice as wide as long, and is a very little wider behind than in front. The first row is curved downward, the eyes being small, and all separated, the lateral by nearly their diameter from the middle. The middle eyes are less than twice as large as the lateral. The second row is a little nearer the first than the third, and the third is nearly as wide as the cephalothorax. The falces are vertical, long, heavy, and parallel, with a short fang. There is one conical tooth on the inferior margin. The sternum is oblong, narrowing in front and behind and truncated in front. The first coxae are separated by about the width of the labium, which is longer than wide.

In the type species the inferior spines on the tibia of the first leg are 3-2, on the tibia of the second, 3-1, and on the metatarsi of the first and second, 2-2. All four joints have lateral spines.

The eyes of this genus resemble those of *Euryattus* and *Simaetha*, but these genera belong respectively to the Pluridentati and the Fissidentati. Moreover, the joints of the palpus are differently formed and proportioned, being flattened, with the tibia much longer than the tarsus, in *Euryattus* and *Simaetha*.

The type is a new species from Mashonaland.

***Jasoda Woodii* P.**

Plate XXVI, figs. 10-10b.

♂. Length 7 mm. Legs 1342, not slender, nearly equal in thickness.

In our single specimen the cephalothorax and abdomen are both rubbed so that no idea of the markings can be formed. The cephalothorax is dark, almost black, with violet reflections. The abdomen is also dark but not glistening, and shows some long white hairs at the anterior end and on the sides. There are some long whitish hairs on the falces at the lower outer corner. The legs are light brown with slender black spines. The palpi are covered with white hairs.

We have one male sent to us by Mr. Guy A. K. Marshall, from Mashonaland, South Africa. The species is named for Mr. J. Wood, who has collected Attidae at East London, Cape Colony.

KEY TO SPECIES OF *THYENE* FOUND IN SOUTH AFRICA.

## MALES.

- |   |  |                           |
|---|--|---------------------------|
| 1 | Abdomen marked with longitudinal bands .....           | 2                         |
|   | Abdomen marked with transverse bands .....             | <b><i>natalii</i></b>     |
| 2 | Cephalic part swollen in front, but not widely .....   | 3                         |
|   | Cephalic part widely swollen in front .....            | <b><i>bucculentum</i></b> |
| 3 | Lower margin of falx with a single conical tooth ..... | 4                         |
|   | Lower margin of falx with a compound tooth .....       | <b><i>crudelis</i></b>    |
| 4 | Tube of the palpus not notched .....                   | 5                         |
|   | Tube of the palpus distinctly notched in front .....   | <b><i>australis</i></b>   |
| 5 | Median abdominal band edged with red .....             | <b><i>Ogdenii</i></b>     |
|   | Median abdominal band not edged with red .....         | <b><i>Leighii</i></b>     |

*Ogdenii*, *Leighii*, *crudelis*. and *australis* are easily distinguished by the mouth parts, or by the apophyses on the palpi.

## FEMALES.

- |   |  |                           |
|---|--|---------------------------|
| 1 | Abdomen marked with longitudinal bands ..... | 2                         |
|   | Abdomen marked with transverse bands .....   | <b><i>natalii</i></b>     |
| 2 | Femur I with transverse striae .....         | 3                         |
|   | Femur I without transverse striae .....      | <b><i>bucculentum</i></b> |
| 3 | Legs $\overline{1342}$ .....                 | <b><i>pulchra</i></b>     |
|   | Legs $\overline{34\ 12}$ .....               | <b><i>Ogdenii</i></b>     |

***Thyene Ogdenii* sp. nov.**

Plate XXV, figs. 2-2d.

Length, ♂ 7 mm, ♀ 8 mm. Legs, ♂  $\overline{1342}$ , ♀  $\overline{3412}$ , first and second pairs stoutest.

The quadrangle of the eyes is wider behind than in front and the middle eyes of the first row are fully twice as large as the lateral, which are separated from them. This row is straight. The third row is narrower than the cephalothorax.

In the male the cephalothorax is brown with a transverse patch of yellowish hairs just above the eyes of the first row. These eyes are surrounded by reddish hairs. There is also, just below the lateral eyes, on the sides, a narrow band of yellowish hairs, and a median longitudinal band of the same color passes backward from between the dorsal eyes, but does not reach the lower border. There are bunches of scattered hairs just behind the lateral eyes. The first legs are darker in some specimens than in others, varying from yellowish-brown to blackish-yellow. The femur is light above and dark below, with transverse dark bands in front. The tarsi are lighter than the other joints. The second leg is lighter colored than the first, the femur being light above and dark below, and the rest light yellow. The other legs are yellow. In some specimens the tarsi and metatarsi of the three posterior pairs are white. The abdomen has the sides brown, deeper in front than behind. There is a median longitudinal yellowish-golden band-the anterior half being more yellowish, and the posterior more golden. On either side of this band is a narrow reddish line. In the posterior half, in the reddish line, are three pairs of small white spots. Some specimens have the brown color on the sides tending to break up into large spots. Low down on the posterior sides are some oblique white bands. The falces are dark brown, moderately long and stout, and slightly projecting.

In the female, of which we have only rubbed specimens, the cephalothorax is yellow. Above the first row of eyes, the whole cephalic plate seems to have been covered with golden-yellow hairs, the first eyes being surrounded by lighter yellow

hairs. There are narrow bands of red hairs on each side, below the eyes, and some scattering long black hairs behind the anterior lateral eyes. The abdomen is yellow marked with a number of small black spots. There is a yellowish golden, median longitudinal band, on either side of which are red bands. Just above the spinnerets the two bands unite. In the posterior half, in the red bands, are three or four pairs of white spots. In some specimens the red bands are absent. The legs are yellow, the femur of the first having transverse dark striae in front.

This species is nearest *Leighii*, from which it is distinguished by the following points: *Ogdenii* is a smaller and lighter colored species with the relative length of the legs 1342 instead of 1324; in *Ogdenii* the spines under the tibia of the first are placed, along the length of the joint, at nearly equal distances, while in *Leighii* the two at the proximal end (one on the anterior and one on the posterior face), are much more widely separated from those at the distal end than these are from each other, those at the distal end being also separated from each other by unequal distances. Both species have two small lateral spines on the tibia of the second.

We have this species from Mashonaland (Mr. Marshall), Durban (Mr. Quekett), and Algoa Bay (Dr. Brauns). It is named for Dr. H. V. Ogden, of Milwaukee.

***Thyene Leighii* sp. nov.**

Plate XXV, figs. 1-1c.

This species has a light and a dark variety, and varies considerably in size.

♂. Length 9.5 mm. Legs  $\overline{1324}$ , first pair stoutest, second next.

The quadrangle of the eyes occupies two-fifths of the cephalothorax and is equally wide in front and behind. The front eyes are a little separated and form a straight row, the middle being twice as large as the lateral. The second row is plainly nearer the first than the third, and the third is much narrower than the cephalothorax.

The cephalothorax is dark brown with a patch of white hairs above the first row of eyes. A white band runs along the upper side of the lateral eye of the first row, and below and behind the dorsal eye, and a patch of white on the thoracic part extends only halfway down the slope. When not rubbed the cephalothorax has reddish hairs around the white spots and around the eyes. The abdomen on the sides is dark, or is pale brown with black hairs. In the middle of the first half is a white band, and behind this is a metallic brown band with three or four small white spots on each edge. When the abdomen is looked at from the side a curved white band is seen which starts low down at about the middle point and runs backward and downward to the end of the venter. The legs and palpi are brown, the front face of the femur of the first leg being marked with dark, transverse striae, which are faintly repeated on the femur of the second. The falces project and are short and broad, of a dark brown, somewhat iridescent color, and thinly covered with short white hairs. The fangs are strong. The spines on the tibia of the first leg are in two rows, four in front and three behind (see drawing), or, in some individuals, four in front and two behind. The tibia of the second leg has the spines 3-3 or 3-2. The metatarsus of the first has two pairs.

We have several males from Durban. The species is named for Mr. George F. Leigh of that city.

***Thyene pulchra* sp. nov.**

Plate XXV, figs. 3, 3a.

A brilliant species with red, white and black markings.

♀. Length 8 mm. Legs  $\overline{1342}$ , first and second pairs stoutest.

The general color of the integument is dark reddish-brown. The cephalic plate is covered with red and white scales, while the thoracic part and the sides have streaks of black and white hairs, with some red intermixed, running upward from the margin. The front eyes have white hairs around the lower half of their circumference and reddish hairs above. The middle of the clypeus has long, bristly white hairs, and on each

side, under the lateral eyes, are three white streaks on a red ground. The falcies are dark brown with white scales on the front faces. There are tufts of long black hairs behind the lateral eyes. The abdomen has the front end and the lower sides covered with black hairs, more or less streaked with white. The middle of the dorsum, in front, is covered with a mixture of white and red hairs, while behind is a short central white band, with wide bands of rich red on each side, cut by two pairs of white bars, edged with black. The red bands join behind to form a red region above the spinnerets. The palpi are light colored and are thickly covered with long white hairs. The legs are brown or yellow, sometimes having dark spots. The femoral joints in the first, second and third pairs are marked with dark transverse striae on their front faces, and the first and second legs have a good many white scales, besides thin fringes underneath, which are white under the femora and black under the patellae and tibiae. The tibia of the first leg has three pairs of spines, and the metatarsus two pairs.

The quadrangle of the eyes is equally wide in front and behind. The front eyes are in a slightly curved row with the middle twice as large as the lateral, which are a little separated from them.

We have five females from Durban.

***Thyene natalii* sp. nov.**

Plate XXV, figs. 4-4b.

♂. Length 5-8 mm. Legs 1342, first plainly stoutest and longest.

♀. Length 7.5 mm. Legs 3412, first plainly stoutest, third and fourth plainly longest.

The quadrangle of the eyes occupies about one-half of the cephalothorax and has the sides nearly parallel. The anterior eyes are close together in a straight row, the middle being twice as large as the lateral. The second row is plainly nearer the first than the third, and the third is a little narrower than the cephalothorax.



We have several specimens, but all of them are rubbed. The cephalothorax, in the male, is dark brown on the cephalic plate and in a wide band around the lower sides and back, and has a light yellowish brown band around the upper sides and across the anterior thoracic part. The eye-region and the anterior thoracic part seem to have been covered with gold and silver iridescent scales and the face is marked with three lines of the same scales which run around below the lateral eyes on to the thoracic part. There are rings of red hairs around the middle eyes, and tufts of black hairs behind the lateral eyes. The cephalothorax of the female is like that of the male excepting that the color of the integument is light brown, with some black spots on the eye region, and that it lacks the tufts. The abdomen in both sexes is marked with transverse bands of bright red hairs and silvery iridescent scales. Under alcohol, some black chevrons appear on the posterior part. In the male the femur of the first leg is dark and glistening, the tibia and patella are lighter, the metatarsus is light at the proximal and dark at the distal end, and the tarsus is dark. The femur of the second is light at the proximal and dark at the distal end, and from this point the leg shades from dark to light at the tip. The third and fourth legs are light. The tibia of the first leg has seven inferior, serial spines, four in front and three behind, and the metatarsus has two pairs. In the female the legs are yellow, the femur of the first being marked, on the front face, with dark striae, which are repeated, with less distinctness, on the femur of the second. The tibia of the first has four anterior and three posterior spines and the metatarsus has two pairs. The falces are vertical, stout, and rather long. They are dark colored in the male and yellow in the female. The tube of the male palpus is much coiled.

We have one female and several males from Durban.

***Thyene crudelis* sp. nov.**

Plate XXV, figs. 5-5d.

♂. Length 7.5 mm. Legs  $\overline{1324}$ , first pair stoutest, second next.

The quadrangle of the eyes is plainly wider in front than behind. The first row is curved, with the lateral separated from the middle eyes, which are scarcely twice as large. The third row is much narrower than the cephalothorax.

The coloring is almost identical with that of *Ogdenii*. The cephalothorax is dark brown with tufts of long black hairs behind the lateral eyes of the first row. There are yellowish-white iridescent scales arranged in a band above the first row of eyes, in bands along the upper sides, and in a large central spot on the thoracic part. The abdomen is very dark on the sides, with a central band on the anterior part made up of whitish scales like those on the cephalothorax, and, behind this, a dark green metallic band. The whole of this central region is edged with bright red, and in the red, on the posterior part, are several pairs of white spots. The white curved lines on the lower sides are like those in the other species. The falces project slightly, and are broad and strong, with a stout compound tooth below. They are dark brown, and have white iridescent scales and long white hairs on the front faces toward the inner sides. The legs are of a medium brown color, the first pair scarcely darker than the others, the femoral joints of the first and second with dark transverse striae in front. The tibia of the first has, underneath, four spines on one side and three on the other, placed at nearly equal distances, more like those of *Ogdenii* than of *Leiqhii*. The metatarsus has two pairs. The maxillae differ in shape from those of the other species (see drawing), and are light brown with the inner upper edges white. The palpi are light brown with white iridescent scales on the femur and tibia.

We have two males from Durban.

***Thyene australis* sp. nov.**

Plate XXV, fig. 6.

♂. Length 6.5 mm. Legs  $\overline{1342}$ , first pair stoutest and darkest, second next.

The quadrangle of the eyes occupies nearly one-half of the cephalothorax and is a little wider behind than in front. The front lateral eyes are a little separated from the middle eyes, and with them form a curved row, the middle being scarcely twice as large as the lateral. The third row of eyes is much narrower than the cephalothorax.

The cephalothorax is dark brown with yellowish-white hairs in a band above the first row of eyes, in a central spot on the thoracic part, and in bands along the upper sides. There are red rings around the front eyes. The abdomen has a central band which is covered with yellowish-white hairs in front and is brown and metallic behind. This band is edged with red, and in this color, in the posterior half, are several pairs of white dots. The sides are dark, almost black, where they meet the red bands, and have curved white bands low down behind. The palpi are dark brown. The falces are stout, slightly projecting, and iridescent brown in color, with some white hairs in front. The first legs are dark brown, the others yellow. The front face of the femur, in the first and second pairs, is black, without striae. The tibia of the first has, below, three spines behind, and four in front, placed at nearly equal distances; the tibia of the second has two in front and three behind. The metatarsi have two pairs. The venter is dark, the coxae are yellow, and the maxillae brown with white on the inner front edges.

We have a single male from Algoa Bay.

***Klamathia* gen. nov.**

Plate XXVI, figs. 4-4c.

The cephalothorax is high and not very convex, highest at the dorsal eyes, from which point it slopes a very little forward, and more decidedly, but still gradually, backward, the

fall becoming steeper after the first half of the thoracic part. The narrowest point is in front, the sides spreading out widely to the middle of the thoracic part, so that the cephalothorax has a rounded appearance. The quadrangle of the eyes is nearly twice as wide as long, is wider behind than in front, and occupies two-fifths of the cephalothorax. The front eyes are moderately large and form a straight row. The middle eyes are close together and are twice as large as the lateral, which are separated from them. The second row is slightly nearer the first than the third, and the third row is plainly narrower than the cephalothorax. The sternum is round. The anterior coxae are separated by the width of the labium which is longer than wide. The falces are strong and are rounded out in front. All the legs are spined. The first pair has, besides lateral spines, three pairs under the tibia, and two pairs under the metatarsus.

*Klamathia* is most nearly related to *Thyene*, but differs from that genus in having the quadrangle of the eyes nearly twice as wide as long.

***Klamathia flava* sp. nov.**

Plate XXVI, figs. 4-4d.

♂. Length 8 mm. Legs 1342, second, third and fourth not differing much in length; first pair stoutest.

This is a yellow species with black spines, black spots around the eyes, and four indented dots on the abdomen.

The body, legs, palpi and falces are yellow or yellowish-brown. Our specimens are rubbed nearly bare but there remain thick white hairs on the clypeus and around all the eyes, while above the eyes, both in front and on the sides, there are bright red hairs. There is a white line around the lower margin of the cephalothorax. The abdomen and legs have a thin scattering of black and white hairs. The palpus has some rather long white hairs. The falces are stout and bulge out in front; they have a single tooth on the lower margin. On the inner and lower edges are long white hairs.

The first leg has, besides lateral spines, three pairs under the tibia, and two under the metatarsus, this latter joint having no lateral spines. The tibia of the second has two pairs below, besides a single spine near the proximal end, and lateral spines. The metatarsus has two pairs and lateral spines.

We have several males from Durban.

***Viciria morigera* sp. nov.**

Plate XXVI, figs. 6-6b.

♂. Length 9 mm. Legs 3421, first and second pairs stoutest.

This is a light colored species, ornamented with red and white bands.

The cephalothorax is light yellowish-brown. The hairs on the eye-region form a white ground with a bright red V in the middle, the apex being between the large eyes of the first row, and a red band on each side. The hairs around the eyes of the first row are bright red. The middle of the clypeus is white, but from under the lateral eyes three bands, a red between two white ones, pass backward below the side eyes and curve upward over the thoracic part. The white bands meet, but the red ones end in two large dark spots within and behind the dorsal eyes. On the lower sides are some scanty black and white hairs. The striking and handsome appearance produced by the bands is so unlike anything found in other South African species of *Viciria* as to easily distinguish *morigera*. The abdomen, in our specimens, is rubbed, but the marking seems to have been two transverse curved bands and a median longitudinal band, all red, on a ground of white hairs. The falces are light brown. The legs are yellow, with black hairs and long spines. The tibiae of the first and second have, besides lateral spines, four pairs below, and of these, the two spines nearest the proximal end are double, two coming out from the same point of insertion. The inner spine next in order is also double, although its mate on the other side is single. This peculiarity marks off *morigera* from *V. alba*, *V. flavipes*, *V. parmata* and *V. niveimana*, all of which have three pairs of ordinary spines under the tibia of the first. The

metatarsus of the first has two pairs of inferior, and two pairs of lateral spines. On the third and fourth legs the spines are numerous but irregular. The palpi are yellow with white hairs. The under surface of the body is pale yellow with a dark central streak on the venter, and brownish mouth-parts.

We have two females from Durban.

***Viciria flavipes* sp. nov.**

Plate XXVI, fig. 7.

This is a yellow species with a red V on the cephalic plate and pink iridescent scales on the abdomen.

♀. Length 8.2 mm. Legs  $31\overline{42}$ , nearly equal in thickness.

There are white hairs on the cephalic plate which contrast with a red V which has its apex between the middle eyes of the first row, and a red band on each side, passing from between the lateral and middle eyes back around the small eye of the second row, and below it on to the side. There is also a small red spot in front of each dorsal eye. The sides and thoracic part seem to have been covered with white hairs. The abdomen has a white band across the front end, and behind this a transverse band of pink iridescent scales. From this a median band of light brown metallic scales, growing darker as it goes backward, and edged with white in the posterior part, passes to the spinnerets. On either side are alternate bands of white hairs and light brown metallic scales. The clypeus is covered with white hairs. The legs are yellow with dark punctate dots and brown spines. On the tibia of the first are inferior and lateral spines, the former being sometimes slightly irregular, and sometimes arranged in three pairs. The tibia of the second has three on the posterior and two on the anterior side, with lateral spines. The metatarsi of the first and second have two pairs. The palpi are white, the falces yellow. The under surface is yellow with a broad sooty-black band throughout the length of the venter. *Flavipes* resembles *morigera* but the double spines of that species serve to distinguish it.

We have females from Durban and Willowmore.

***Viciria alba* sp. nov.**

Plate XXVI, fig. 8.

A rather large, pale species.

♂. Length 10.3 mm. Legs  $3\overline{124}$ , nearly equal in length, first and second pairs slightly stouter than the others.

The cephalothorax, with the exception of the eye region, is smooth and pale. The region enclosed by the eyes is covered with light, silky, iridescent hairs, and is surrounded by a ring of beautiful red spots which are placed around and between the eyes, two of them appearing between the eyes of the third row.

The abdomen, in our specimen, has been rubbed, and shows a pale, smooth surface, covered with reticulating dark lines, and some patches of silky hairs like those on the eye region. Just in front of the spinnerets there is a dark spot. The venter, which is pale with reticulating lines, shows a similar dark spot at the posterior end. The sternum is yellow. The mouthparts are white, tipped with black. The falces are large, long and vertical, and are pale, with reddish fangs. The legs are white tipped with black and have many black spines, the tibia of the first and second having three, and the metatarsi two pairs without lateral spines. The palpi are white with dark specks and long white hairs.

We have one female from Salisbury, Mashonaland, sent by Mr. Marshall.

***Viciria parmata* sp. nov.**

Plate XXVI, figs. 5, 5a.

♂. Length 9.5 mm. Legs  $1\overline{234}$ , first and second pairs plainly stoutest, and third pair stouter than fourth.

This is a dark species with white markings. The legs are dark and hairy excepting the metatarsi and tarsi which are yellow.

In one of our specimens the third and fourth pairs of legs are light, and the abdomen is pale brown with a black band around the front end, but as a usual thing the body, legs and

palpi are dark brown or black. So far as we can judge of the markings, the upper surface of the cephalic plate is dark with a central white band, while bright red hairs surround the eyes. The sides have wide black bands at the lower margin, and, above these, wide white bands which curve up on to the thoracic part. The abdomen has a median longitudinal band of silvery metallic scales, which become iridescent in the posterior half. The legs of the first pair have, on the patella and tibia, moderately long black fringes above and below, and the first and second legs have the femur iridescent. The third and fourth legs are more brownish than the first and second, and all four pairs have the metatarsi and tarsi yellow or white. The falcis project a little, and are long and strong. They are black, with slight iridescence, and have some long white hairs on the inner sides, and a bunch of white hairs opposite the fang. The clypeus has a few long white hairs.

In the light brown variety the coxae and trochanters grow pale from the first to the fourth pair, while in the dark variety these joints are black.

We have several males from Durban.

***Pellenes rufoclypeata* sp. nov.**

Plate XXVII, figs, 1, 1a.

In this species the high clypeus is red.

♂. Length 4.9 mm. Legs  $\overline{1342}$ , first and second stoutest.

The cephalothorax is high and convex, rounding off in both directions from the dorsal eyes. It is a little the widest in the middle of the thoracic part. The quadrangle of the eyes is about equally wide in front and behind. The front middle eyes are close together, the lateral being more than half as large and a little separated from them. This row is slightly bent. The second row is about halfway between the others, and the third row is nearly as wide as the cephalothorax. The falcis are moderately long and strong, with one tooth on the inferior margin. The sternum is rounded and truncated in front. The anterior coxae are separated by more than the width of the labium, which is as wide as long.



The ground color of the cephalothorax is brown, darker in the thoracic than in the cephalic part. From the hairs that are left on our specimen the upper surface and sides must have been covered with white and bright red hairs, and there are two white bars on the thoracic part. Around the front eyes, and covering the high clypeus are short hairs of a crimson color, quite different from that of the red on the back of the spider, which has a shade of yellow. The abdomen is paler than the cephalothorax and is more or less mottled with black. It seems to have been covered with red and white hairs, but with the exception of a white band around the front end and three white bars on the sides, the pattern is indistinguishable. The palpus is dark with a spot of white hairs on the tibia and one on the patella. The first and second legs are dark brown with slight black fringes under the tibiae. The third and fourth legs are light brown, barred with dark.

We have one male from Durban, sent by Mr. Leigh.

***Pellenes Beanii* sp. nov.**

Plate XXVII, figs. 2-2c.

Length, ♂ ♀ 4.5 mm. Legs, 1342, first much the stoutest.

The cephalothorax is moderately high, the cephalic and thoracic parts being nearly on the same plane, the cephalic part slanting forward a little, while the thoracic falls very slightly in the first half, and then abruptly. It is a little narrower in front than behind, the sides being parallel in the middle. The quadrangle of the eyes occupies about two-fifths of the length, is one-third wider than long, and wider behind than in front. The anterior eyes are all subtouching, and form a straight row, the middle being twice as large as the lateral. The second row is halfway between the other two, and the third is as wide as the cephalothorax at that place. The falces are short, vertical and parallel, with a short fang and one tooth on the lower margin. The sternum is oval, and truncated in front. The coxae of the first legs are separated by the width of the labium, which is as wide as long.

In the male the cephalothorax has a dark ground color. A

white band crosses the clypeus, just above the falces, and widening as it goes backward, extends around the lower margin. A second white band passes along the upper sides of the cephalic part, just below the eyes, and crosses the upper surface behind the dorsal eyes. On the cephalic plate is a white region which is wide over the first row of eyes, and narrows to a point, between the dorsal eyes. On the front faces of the falces are two or three fine lines of white hairs. The abdomen is of a dark reddish-brown color with three curved transverse white bands across the dorsum. Behind the second band is a central white spot, and a central longitudinal white line connects the third band with the spinnerets. The sides are streaked with yellowish-white hairs, which are also found on the venter and sternum. The palpus has the femur, patella and tibia covered with white hairs, while the tarsus is dark. The legs of the first pair, which are much stouter than the others, have the femur, patella and most of the tibia light yellowish-brown, while the extreme end of the tibia, the metatarsus and the tarsus are darker colored. There is a light fringe of white hairs running along the under face of the femur and the inner face of the patella and part of the tibia, black hairs being intermixed on these latter joints, and there is a short fringe of light and dark hairs on the upper edges of the patella and tibia. The other legs are dark brown with sparse short white hairs.

In the female the ground color is darker, the cephalic region has the sides entirely covered with white hairs, and the shape of the white region on the cephalic plate is reversed, since it begins in a point between the anterior middle eyes and has its broad end in front of the dorsal eyes. The sides of the abdomen are white. In other respects it resembles the male.

We have one male and one female from Algoa Bay, South Africa, sent to us by Dr. Brauns.

### ***Habrocestum.***

We have four new species of *Habrocestum* from South Africa, *dotatum* from Mashonaland, *luculentum* from Cape Colony, *Laurae* and *Annae* from Durban. They all have the mouth-parts small, and the labium as wide as long; and in all, the quadrangle of the eyes is a little wider in front than behind.

***Habrocestum Laurae* sp. nov.**

Plate XXVII, figs. 5, 5a.

♀. Length 5.1 mm. Legs  $\overline{3412}$ , about equal in thickness.

The first row of eyes is curved upward, the middle eyes being nearly twice as large as the lateral, which are separated from them. The second row is halfway between the other two. The sternum is oval and not much longer than wide.

The cephalothorax and abdomen are thickly covered with a mixture of short white, red and black hairs, the markings being formed by a concentration of one or another of the colors. On the cephalothorax, between the dorsal eyes, are two white spots, close together, and just in front of these, two more, which are a little separated. The abdomen has fine black points on the base and sides, a white spot edged with black on the middle of the dorsum, and back of this two curved dark bands, like a parenthesis. There are white rings around the eyes, and long snow-white hairs on the wide clypeus. The falces, which are moderately long and stout, are brown with a few white hairs. The palpi are pale with white hairs. The legs, with the exception of the proximal ends, which are pale and hairless, are rather dark, and are covered with hairs like those on the body.

We have two females from Durban.

***Habrocestum Annae* sp. nov.**

Plate XXVII, figs. 4, 4a.

♀. Length 6 mm. Legs 3412, first and second a little stoutest.

The first row of eyes is straight with the middle eyes less than twice as large as the lateral, which are scarcely separated from them. The second row is nearer the first than the third. The sternum is oval and long.

The cephalothorax is covered with a mixture of red and white hairs, the white predominating on the sides and the red above. On the upper sides, just below the eyes, these hairs form two short longitudinal white bands, with red between. The face

has, below the lateral eyes, four white lines on a dark background, the lower two of which cross the wide clypeus. These lines pass around, on the sides, to a point just behind the lateral eyes. The falces are rather short and stout, brown in color, with some long white hairs. The abdomen is also covered with white and red hairs, the front end being whitish. Two slender white lines run back, on the dorsum, to the middle point, and behind this is a series of lighter and darker chevrons. On each side are two curved white bands. The palpi are brown with white hairs. The legs have the proximal ends pale, but are otherwise brown with a good covering of white and red hairs.

We have two females from Durban.

***Habrocestum dotatum* sp. nov.**

Plate XXVII, figs. 6, 6f.

Length, ♂ 6.5 mm., ♀ 7 mm. Legs, ♂ 1342, ♀ 3412; first and second stoutest.

The sternum is oval in the female, round in the male. The falces are long and rather stout. The first row of eyes is curved downward, with the middle twice as large as the lateral in the male, and nearly twice in the female. The lateral are a little separated from the middle eyes. The second row is nearer the first than the third.

The male is brown, much darker than the female. The eye-region is covered with dull golden hairs. On the thoracic part are some patches of yellow hairs and six white spots, one under each dorsal eye, a smaller one further back, and two behind, on the thoracic slope. There are bristly white hairs on the clypeus and also on the falces, particularly running down the outer sides. Under the lateral eyes are short white hairs marked by two dark lines. The abdomen is black on each side, above, with white hairs at the base and in a central band, the latter being edged with yellow. It is crossed by a curved yellow band, behind the middle. The sides are covered with yellow hairs, and have three oblique snow-white spots. The legs are dark brown with black hairs underneath. Above there are

patches of short yellow hairs, and spots of pure white hairs at the proximal ends of the joints. On the tarsi of the first and second legs these white hairs grow upon a yellow ring. The palpus has some white hairs, but many more black ones. The venter is pale, with a dark line down the middle, and dark sides.

In the female the eye-region is covered with dull golden hairs. On the sides and thoracic part streaks of yellow and black hairs run upward from the margin. The middle of the clypeus, the falces and the palpi are covered with bristly white hairs, the falces having also some short black bristles. Under the lateral eyes, running backward, are alternate lines of white and yellow hairs, very characteristic and striking in appearance. The abdomen is mottled with black and yellowish hairs, there being a darkening of color on each side of the middle. The sides are marked with three oblique white bands.

Under alcohol the abdomen has a light colored longitudinal band, of irregular outline, down the middle, and mottled blackish bands, which are more or less broken into large spots, on the sides. In the posterior third a curved yellow line comes up over each side and runs into the central band, which, behind this point, is broken into two or three chevrons by the crossing of dark lines. Just above the spinnerets is a large dark spot. Below the dark side bands the abdomen is light colored. The venter is light with three fine longitudinal dark lines. The palpi are light, with long light hairs, and two small dark spots on the dorsal face. The legs are yellowish-brown with a few dark spots. Under the tibiae of the first and second are three pairs of spines, and under the metatarsi, two pairs. The third and fourth legs have strong spines, not in pairs.

We have one male and several females from Mashonaland, received from Mr. Workman, and Mr. Marshall.

***Habrocestum luculentum* sp. nov.**

Plate XXVII, figs. 3, 3a.

♂. Length 3.5 mm. Legs  $3\overline{14}2$ , first pair stoutest, third much the longest.

This is a small species with the cephalothorax longer than the abdomen. The first row of eyes is a little curved upward, the middle eyes being less than twice as large as the lateral, which are close to them. The second row is nearer the third than the first. The sternum is small and almost round. The clypeus is wide.

The integument is black. The eye-region is covered with reddish hairs, excepting a wide white central spot which runs forward between the large eyes of the first row. The thoracic part, in our specimen, is rubbed bare. The abdomen is also somewhat rubbed but seems to have had the back covered with reddish hairs, a white band around the base and sides, and a wide transverse white band a little way in front of the spinnerets. The front faces of the first and second legs are black. The legs are otherwise brown, and seem to have been well covered with short white and red hairs. The palpi are entirely covered with long, snow-white hairs. The falces are short and weak, and brown in color.

We have one male from Cape Colony.

***Langona avara* sp. nov.**

Plate XXVIII, figs. 5, 5a.

♂. Length 5 mm. Legs  $34\overline{1}2$ , almost equal in thickness.

The cephalothorax is long and rather narrow in front. The front row of eyes is plainly curved, the second row is nearer the third than the first, and the third is nearly as wide as the cephalothorax. Our specimen is damaged so that we cannot be sure of the color. The whole spider is black with a covering of mixed white and red hairs on the cephalothorax and three longitudinal bands of the same hairs on the abdomen, one central, which in our specimen is interrupted, perhaps from the

rubbing away of hairs, and the others low on the sides. The face view is very striking. The four anterior eyes, instead of being of the usual dull, opaque hue, are bright, emerald green in a setting of pale red hairs, which surround them and cover the wide clypeus. Above the red hairs, forming a sort of eyebrow, is a projecting ridge of stiff black hairs. The legs are light brown, with black and white hairs and pale spines. The palpi are covered with light brownish hairs. The falces are weak and pale.

We have one male from Manica Mts., Mashonaland, sent by Mr. Marshall.

***Phlegra imperiosa* sp. nov.**

Plate XXIII, figs 7, 7a.

♀. Length 5.8 mm. Legs 4312, first pair stoutest, second next. Fourth longer than third by metatarsus and tarsus. Tibiae of first and second with three inferior spines and one lateral; metatarsi with two pairs below.

This is a brown species, the cephalothorax being a little darker in color than the abdomen and legs.

The quadrangle of the eyes is very short, occupying scarcely one-third of the cephalothorax. The anterior eyes are subtouching, in a curved row, the middle being less than twice as large as the lateral. The second row is plainly nearer the first than the third. The third row is nearly as wide as the cephalothorax at that place, the eyes being large and prominent. The cephalothorax, abdomen, and legs are covered with a mixture of red, black, and white hairs, giving a uniform bright brown tint. Around the lower edge of the cephalothorax is a white line edged with black, and on the clypeus the hairs are white. The under parts are brown, the labium and maxillae being tipped with white. The small, retreating falces are brown.

We have two females from Robben Island, Table Bay, Cape Peninsula, collected by Mr. R. M. Lightfoot.

## FISSIDENTATI.

***Tusitala* P. 1902.**

Plate XVIII, figs. 2-2b.

The cephalothorax is high, with the sides sloping outward from the upper surface and widening in a gentle curve from front to back, the widest point being behind the dorsal eyes. The cephalic part is inclined forward, and the thoracic rounds off rather steeply from the third row of eyes. The quadrangle occupies from two-fifths to nearly one-half of the cephalothorax, is one-third wider than long and is wider behind than in front. The first row of eyes is straight or a little curved down; the eyes are large, the middle being less than twice the size of the lateral and subtouching, while the lateral are well separated from them. The second row is equally distant from the first and third or is a little nearer the first, and the third is narrower than the cephalothorax. The falces are long, strong, and vertical, and are bowed, with a compound tooth on the inferior margin. The males have a stiff ridge of hairs on the front face. The sternum is oblong and truncated. The first coxae are separated by about the width of the labium, which is longer than wide.

This genus is founded upon *T. barbata* and includes *T. hirsuta* and *T. Braunsii*, both from South Africa.

***Tusitala barbata* P.**

Plate XVIII, figs. 2-2d.

♂. Length 6.5 mm. Legs 1432, about equal in thickness. The first pair is plainly the longest but the others do not differ much in length.

The cephalothorax is covered with a mixture of red, yellow and white hairs, the red predominating on the sides, and the white on the upper surface. The clypeus is less than half as wide as the middle eyes of the first row, and is yellow with a few white hairs. The falces are light brown, and have a re-



markable ornament in the shape of a long ridge of stiff hairs down the front face. These hairs stand out stiffly, but their tips curve inward to meet those of the opposite side in the middle line. Their color is snowy-white on the upper half and deep black on the lower. The palpus is slender with long joints, the tibia much exceeding the tarsus. The femur and tarsus are dark colored, the patella and tibia, pale. The legs are brown with darker bars. The abdomen is covered with a mixture of gray and brown hairs. There is a white band around the base, and the posterior dorsum has some indistinct white chevrons.

We have six males from Algoa Bay, South Africa, sent to us by Dr. Brauns.

***Tusitata hirsuta* P.**

Plate XXVIII, figs. 3, 3a.

♂. Length 8 mm. Legs 1234, first and second a little the stoutest.

In our single specimen the cephalothorax is much darker than the abdomen but both are rubbed quite bare of markings excepting some long white hairs at the front end of the abdomen. The clypeus is as wide as the large eyes of the first row, and is brown, with long white hairs. The falces are long and strongly bowed, approaching each other at the extremities. They have ridges of stiff hairs, as in *T. barbata*, on the front faces, which are light brown in color and grow longer and thicker in the lower than in the upper half. The palpus is long and slender, the tibia being much longer than the tarsus. The patella and tibia are much lighter in color than the femur and tarsus. The legs are brown, the first and second pairs being darker than the third and fourth.

We have one male from Zululand, given to us by Rev. Henry C. McCook.

***Tusitala Braunsii*, P.**

Syn. *Monclova Braunsii* P., 1902. Upon further study we believe that *Monclova* P. should be included in the genus *Tusitala*.

Plate XXVIII, figs. 1, 1d.

♀. Length 7 mm. Legs  $\overline{43}$   $\overline{12}$ , the third and fourth plainly longer than the first and second.

The spider is covered with a mixture of white, black, and bright rufus hairs, the different colors predominating on different parts so as to form the markings. Thus the cephalic plate is bright rufus and the middle line on the thoracic part pure white, while the abdomen shows a white band around the anterior end, and, on the posterior part of the dorsum, wide alternating transverse bands of rufus and black. These bands are not parallel but run upward and forward from the sides. The clypeus has long white hairs, and these are continued, rather sparsely, on to the falces. The legs are not conspicuous, being of a light brown color with darker rings and white hairs. The light brown palpus is covered with white hairs.

We have four females, sent by Dr. Brauns, from, Cape Colony.

***Tularosa* gen. Nov.**

Plate XXVIII, figs 4-4c.

This genus belongs to the Fissidentati, as the inferior margin of the falx bears a compound tooth. The indentation on one side, however, is sometimes more marked than on the other.

The species are of medium size. The cephalothorax is rather high, and, in the males, is so widely rounded as to make the outline almost circular, while in the females it is plainly longer than wide, and is widest in the thoracic part. The highest point is at the dorsal eyes, the slope in the cephalic and in the anterior thoracic parts being very slight. The quadrangle of the eyes is one-third wider than long, is a little wider in front than behind, and occupies two-fifths of the cephalothorax. The front eyes are large, close together, and form a straight

row, the middle eyes being twice as large as the lateral in the males, and less than twice in the females. The second row is halfway between the first and the third, or is nearer to the first. The third row is narrower than the cephalothorax, especially in the males. The sternum is oval and is truncated in front. The front coxae are separated by the width of the labium, which is longer than wide in the male, and about as long as wide in the female. On the first and second legs the tibia has three pairs of inferior spines and the metatarsus two pairs. There are lateral spines excepting on the metatarsus of the first, where they are lacking. The third and fourth legs have numerous spines. We have two species of *Tularosa*, *Ogdenii*, and a second one, still unpublished.

***Tularosa Ogdenii* sp. nov.**

Plate XXVIII, figs 4-4d.

♀. Length 8.5 mm. Legs  $\overline{34}$   $\overline{12}$ , first pair a little the stoutest, third and fourth plainly longest.

The cephalothorax is not at all convex but slopes gradually in both directions, from the dorsal eyes.

Under alcohol the sides and back of the cephalothorax are yellow, with a black margin and a band of dark spots which crosses the thoracic part and passes forward along the sides, while the eye-region is bright reddish-brown, with a black border, which forms a deep scallop between the dorsal eyes. The abdomen appears yellow, mottled with brown.

Our specimens are somewhat rubbed. When dry, patches of yellow and red hairs appear on the cephalothorax, the red coming out brightly around the dorsal eyes. Above the front eyes the hairs are yellow, on the clypeus they are white, and on the yellow palpus they are yellowish-white mixed with black. The falces are reddish-brown, like the eye-region. The abdomen seems to have been covered with light yellow hairs, a curved transverse band of red hairs crossing the-back behind the middle. Back of this, on each side, is an elongated spot of dark brown hairs, surrounded by red hairs. The legs are yellow,

with short yellow hairs and black spines. The first leg has one dark spat under the femur, and two under the tibia. The venter is yellow with some dark specks.

We have numerous females from Mashonaland and Durban. The species is named for our friend Dr. H. V. Ogden, of Milwaukee.

***Mexcala* P. 1902.**

Plate XXIX, figs. 1-1d.

The cephalothorax is moderately high. It widens out more below than above, and is broader in the posterior part than in front. The quadrangle of the eyes occupies a little more than one-third of the cephalothorax, is one-sixth wider than long, and is equally wide in front and behind. The anterior eyes are moderately large, the middle being less than twice as large as the lateral, and form a slightly curved row. The middle eyes are subtouching, with the lateral a little separated from them. The second row is halfway between the other two. The third row is a little narrower than the cephalothorax. The falces are vertical and stout, with a short fang, and have one conical tooth on the inferior margin. The sternum is truncated in front. The first coxae are separated by about the width of the labium, which is longer than wide. The pedicle is not visible. There are no constrictions. The abdomen is narrow in front and then widens.

*Mexcala* is distinguished from the other ant-like genera of this region by having a single conical tooth on the inferior margin of the falx.

***Mexcala rufa* P.**

Plate XXIX, figs. 1-1d.

♂. Length 8 mm. Legs 4132, almost equal in stoutness, femora slightly thickened.

The cephalothorax is dark colored with a few black hairs on the eye-region, and some tiny white scale-like hairs on the

front of the falces, and the lower edge of the clypeus, which pass around a little way, on to the sides of the cephalic part. The legs and palpi are black. The abdomen in our specimen is rubbed, but seems to have been entirely covered with golden-yellow hairs which shade to white on the venter.

We have one male from Cape Colony, sent to us by Dr. Brauns.

***Mexcala elegans* sp. nov.**

Plate XXIX, figs. 2-2d.

♂. Length 6 mm. Legs 4132, all slender.

This species is not strikingly ant-like. It differs from *rufa* in having the first row of eyes straight, and in the coloring and size, but the palpi of the two are alike.

The body is covered with bluish-gray hairs, which look, under the microscope, like elongated scales. There are three transverse black bands on the cylindrical abdomen, which show best under alcohol. The front faces of the falces are covered with white, rice-like scales. The legs have the femoral joints dark colored while the patellae, tibiae and metatarsi are marked with longitudinal black and white lines, most distinct on the first and second pairs. In the first leg the tarsi are pure white, but in the others they have the longitudinal lines through a part of their length. The palpus has white hairs on the patella, tibia and tarsus, and a dark band on the upper side of the patella and tibia.

We have one mature and one immature male from Manica Mountains, Mashonaland, sent to us by Mr. Marshall.

***Myrmarachne Marshallii* sp. nov.**

Plate XXIX, figs. 6-6b.

♂. Length 6.5 mm. Length of cephalothorax 3 mm. Length of falces 2.7 mm. Legs 4132.

♀. Length 6 mm. Legs 4132.

The whole spider is black, covered with fine yellowish pubescence. There is a deep constriction in the cephalothorax between the cephalic and thoracic parts, and a slighter one in the abdomen, near the anterior end. The female has two white rings on the abdomen, one in the constriction and one behind the middle. In the male the first leg has the femur, metatarsus and tarsus dark, while the patella and tibia are light with a dark line on each side. The second leg is yellow with black lines along the sides, more distinct in front than behind. The third leg has the coxa, trochanter and femur black and the other joints brown, with faint lines. In the fourth leg the coxa and trochanter are white, the femur is black, and the other joints are brown. The male has the palpus black and the falces brown, long, and horizontal, with a long curved fang, which has a hook near the base. The teeth on the lower margin are short and small, while on the upper they are long and numerous. The upper surface is rugose.

In the female the falces are short, vertical, parallel, and of a light reddish color. The palpi are light brown and have the tarsi enlarged. The first and second legs are light yellow with black lines on their front faces. The third leg is dark as far as the end of the patella, the other parts being light. The fourth leg has the coxa, trochanter, and proximal end of patella light yellow, and the rest dark.

We have a male and female and several immature specimens from Mashonaland, sent to us by Mr. Guy A. K. Marshall, for whom we have named the species.

In the genus *Myrmarachne* we have three males (*Marshallii*, *solitarius*, *ichneumon*), and two females (*Marshallii*, *ichneumon*). These are distinguished as follows: Of the males, *Marshallii* and *ichneumon* have at least seven teeth on the upper

margin of the falx, while *solitarius* has three large teeth. In *Marshallii* the total length is 6.5 mm, and the fourth leg 9 mm. In *ichneumon* the total length is nearly 8 mm, and the fourth leg 6 mm. In *solitarius* the total length and the length of the fourth leg are both 4.5 mm. The two females are distinguished by their color and the epigynes.

***Myrmarachne ichneumon* E. S.**

♀. Length 6.6 mm. Legs  $\overline{4132}$ .

The front eyes are close together, in a row which is curved downward, the middle being nearly twice as large as the lateral.

The spider as a whole is yellow. The eye-region is black, and there seems to have been a white band in the post-ocular constriction. The pedicle is long. The first third of the abdomen, which is square, and ends in a raised ridge, seems to have been covered with white hairs. The middle third is covered with white hairs and the posterior third is dark in front and covered with white hairs behind, excepting a dark line around the base of the spinnerets. The legs are yellow, with a longitudinal black line on the anterior faces of the patellae and tibiae, and a similar but less distinct line behind.

We believe that only the male of this species has been described, up to this time. We have several females, as well as a male, from Mashonaland, where they were collected by Mr. Marshall.

***Myrmarachne solitarius* sp. nov.**

Plate XXIX, figs. 5, 5a.

Length, ♂. 4.5 mm. ♀. 5 mm. Legs  $\overline{4132}$ .

The front eyes are close together in a row which is a little bent downward, the middle being nearly twice as large as the lateral. The pedicle is long.

The whole spider is dark colored. There are two constrictions, one just behind the third row of eyes and one near the front end of the abdomen, and each of these is encircled with

a band of white hairs. Where the hairs are rubbed off, in the female, the color below is yellow. In the male the cephalic part is darker than the rest of the cephalothorax, and the abdomen, which is a good deal rubbed, is black and glabrous with a thin scattering of white hairs. Under alcohol the coloring of the legs is as follows: In the male all the femora are dark, those of the third pair being a little lighter than the others. The first leg has the patella and tibia yellow, the metatarsus dark, and the tarsus pale yellow. There are indistinct, longitudinal dark lines on the front and back sides of the patella and tibia. The second leg, excepting the femur, is light. The third leg has the patella yellowish-brown with a dark line in front, and the tibia, metatarsus and tarsus yellow. In the fourth leg the proximal half of the patella is light and the distal half is brown. The tibia and metatarsus are brownish yellow and the tarsus paler. The coxae of the first and second pairs are light, of the third and fourth, dark. The trochanters of the first, second and fourth are light, the third, dark.

In the female the first leg has the proximal two-thirds of the femur and the whole of the metatarsus dark. The other parts are yellow with a narrow, dark, longitudinal line on each side, running as far as the metatarsus. The second leg is yellow, with a wide, dark, longitudinal band on each side, running as far as the metatarsus. The third leg has the femur dark and the other joints yellow. There is one longitudinal dark band on the patella, and a dark line on each side of the tibia and metatarsus. The fourth leg has the femur dark, the patella dark at the ends with a yellow ring in the middle, the tibia and metatarsus brown, but not so dark as the ends of the patella, and the tarsi yellow. The coxae of the first and second legs are light; of the third, dark; and of the fourth, part dark and part light. The sternum, maxillae and labium are brown. The falces are brown, and nearly vertical. The palpus is brown with a palette-shaped tarsus.

We have one female, collected by Mr. Lightfoot at Retreat Flats, and one male, collected by Mr. Purcell at Devil's Mountain, Cape Colony.



***Kima* P. 1902.**

Plate XXIX, figs. 3-3d.

This genus belongs to the Ant-like Group. The cephalothorax is moderately high in the cephalic part, the thoracic falling gradually from a groove behind the dorsal eyes. The sides, nearly parallel throughout most of their length, contract, more or less, behind. The quadrangle of the eyes occupies two-fifths of the cephalothorax, is nearly as long as wide, and is equally wide in front and behind, or wider behind. The front row of eyes is straight or bent downward. The second row is plainly nearer the first than the third, and the third is nearly as wide as the cephalothorax. The falces are long, slightly divergent, and nearly horizontal, with a short fang. The inferior margin is unarmed, but the superior has a large compound tooth which is visible from above. The front coxae are separated by more than the width of the labium, which is plainly longer than wide. The sternum has a long point behind and is truncated in front. There is a long pedicle, and the abdomen has a constriction in the middle.

The metatarsus of the first leg has two pairs of inferior spines, and the tibia three pairs, one near the proximal, and two near the distal end.

This genus is distinguished from *Quekettia* by its more ant-like shape and by the abdominal constriction, as well as by the difference in the spines. *Kima* and *Quekettia* differ from *Araegeus* E. S., which also has no tooth on the inferior margin of the falx, by the shape of the sternum, which in *Araegeus* has a long point in front. The type species, *K. africana*, differs from *variabilis* in the following points: the sides of the cephalothorax contract suddenly, at the posterior end, forming a rather sharp angle, while in *variabilis* they round off gently; the quadrangle of the eyes is equally wide in front and behind, the front row being a little curved downward with the middle eyes about twice as large as the lateral; the relative length of the legs is different, and the coxae of the first legs are black.

***Kima africana* P.**

Plate XXIX, figs. 3-3d.

A large, ant-like species., with long slender legs and a long pedicle.

♂. Length 8 mm. Legs 4132, fourth much the longest.

We have but one specimen. The cephalothorax is without hairs, the color being dark reddish brown, deepening to black on the cephalic plate. The fourth legs are black throughout their length, but the others, although black near the body, shade to brown at the extremities. They are equal in thickness and are but scantily haired. The first leg has three pairs of spines under the tibia, and two pairs under the metatarsus. The palpi are black. The rather high black clypeus has a few short white hairs. The abdomen, which has a constriction in the middle, is covered with rich golden-yellow hairs, which shade to white on the venter. The falces are, reddish-brown, and are flattened, with two teeth on the superior margin, at the distal end.

We have one male from Cape Colony, sent to us by Dr. Brauns.

***Kima variabilis* sp. nov.**

Plate XXIX, figs. 4-4b.

A dark species, with long thin legs. The entire under surface is black excepting the coxae of the first and second pairs of legs, which are perfectly colorless.

We have two males, one of which measures 11 mm. and the other 7.5 mm. in length. The relative length of the legs is 1432, the first and fourth being very much longer than the second and third, but all are equal in thickness.

The cephalic part. is rather high. There is a groove behind the dorsal eyes, and from this point the thoracic part slopes gradually backward. The quadrangle of the eyes is a little wider behind than in front. The face is narrow, the front eyes

forming a straight row, the middle being close together, while the lateral are somewhat separated from them and are more than half as large.

In our larger specimen the hairs are white, having perhaps, lost their color in the alcohol. The smaller one has the cephalothorax covered with yellowish-white hairs and the abdomen with yellow hairs, excepting a pure white band in the constriction, which runs down on each side of the venter. The first and second legs have the femur dark with pale streaks, the tibia and patella pale with a black band on each side, and the metatarsus and tarsus dark in the first pair and pale in the second. The third and fourth legs are mostly dark. The palpus is dark and the falces slightly bronze-colored. The under surface is dark, excepting the first and second pairs of coxae, which are white, and make a striking contrast.

From Cape Town and Pt. St. John's.

#### ***Quekettia* P. 1902.**

The cephalothorax is rather low, and is narrow in front, widening out behind the third row of eyes and then contracting behind. The upper surface is flat and almost entirely on the same plane, there being the gentlest possible rise from the two ends to the dorsal eyes. It is a little wider below than above. The quadrangle of the eyes is very slightly wider than long, is wider behind than in front, and occupies two-fifths of the cephalothorax. The anterior eyes are subtouching, in a straight row, the middle being twice as large as the lateral. The second row is much nearer the first than the third, and the third row is not quite so wide as the cephalothorax. The falces are very short, vertical and parallel, with no tooth on the inferior margin. The sternum is oval, truncated in front. The first coxae are separated by a little more than the width of the labium, which is as wide as long. The pedicle is not visible from above. The relative length of the legs is 4123, the first and second being short and much thickened, especially as to the femur and tibia. The type species is 6.5 mm. long.

The short chubby front legs are enough to distinguish *Quekettia* from others of the group. The type is our *Leptorchestes georgii* from Madagascar, *Ant-like Attidae*, p. 52.

This genus is named for Mr. J. F. Quekett, Curator of the Durban Museum, Natal, South Africa.

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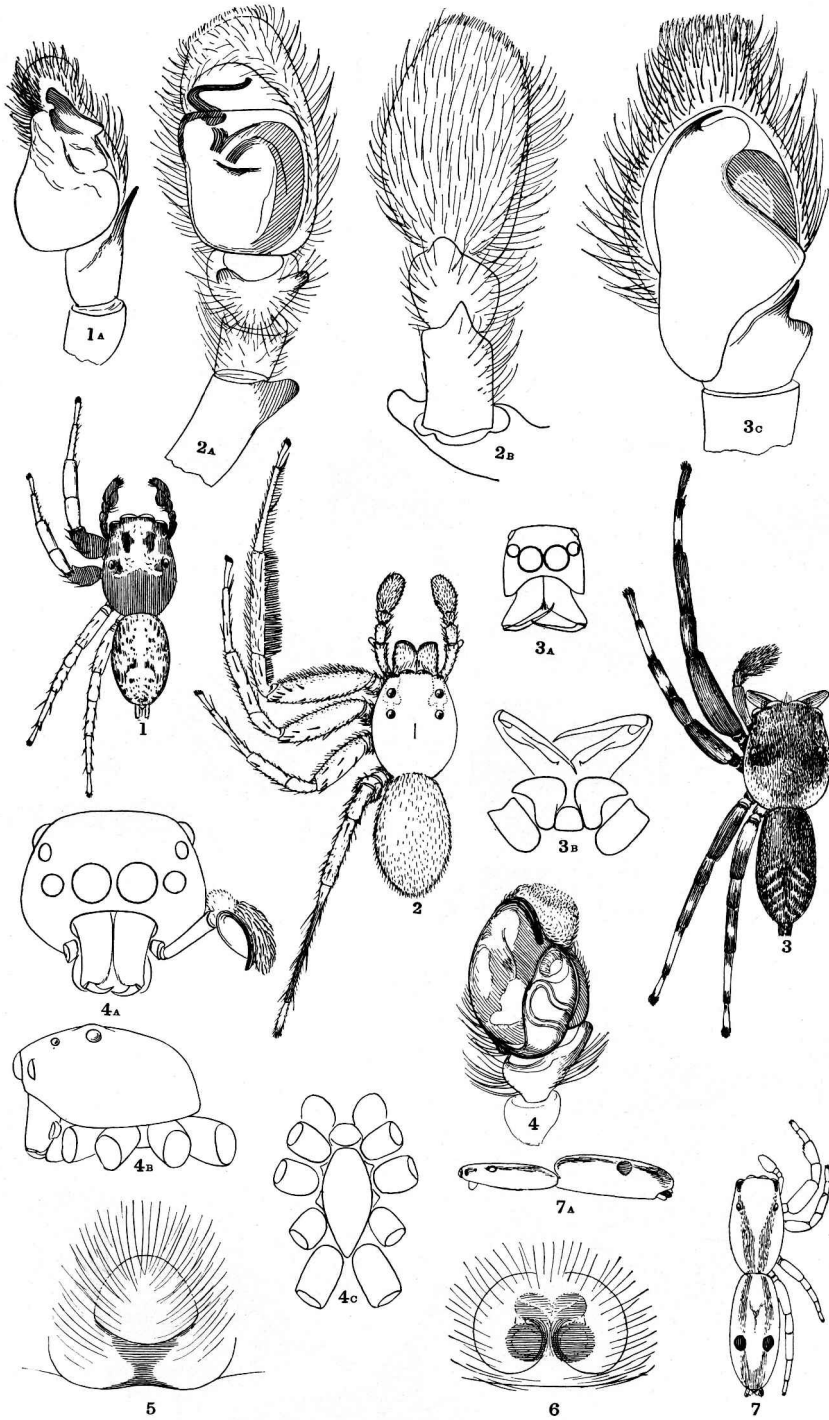
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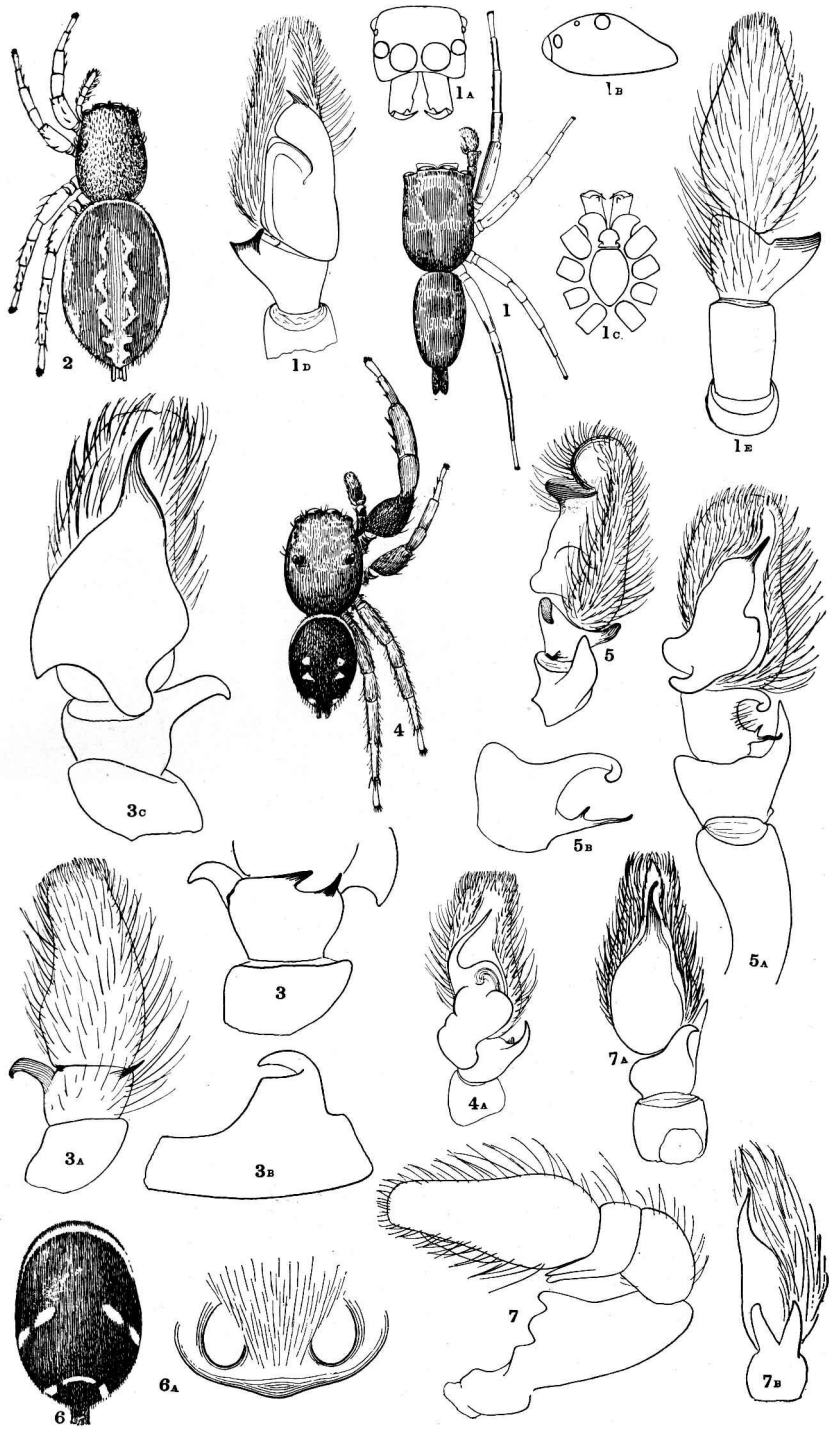
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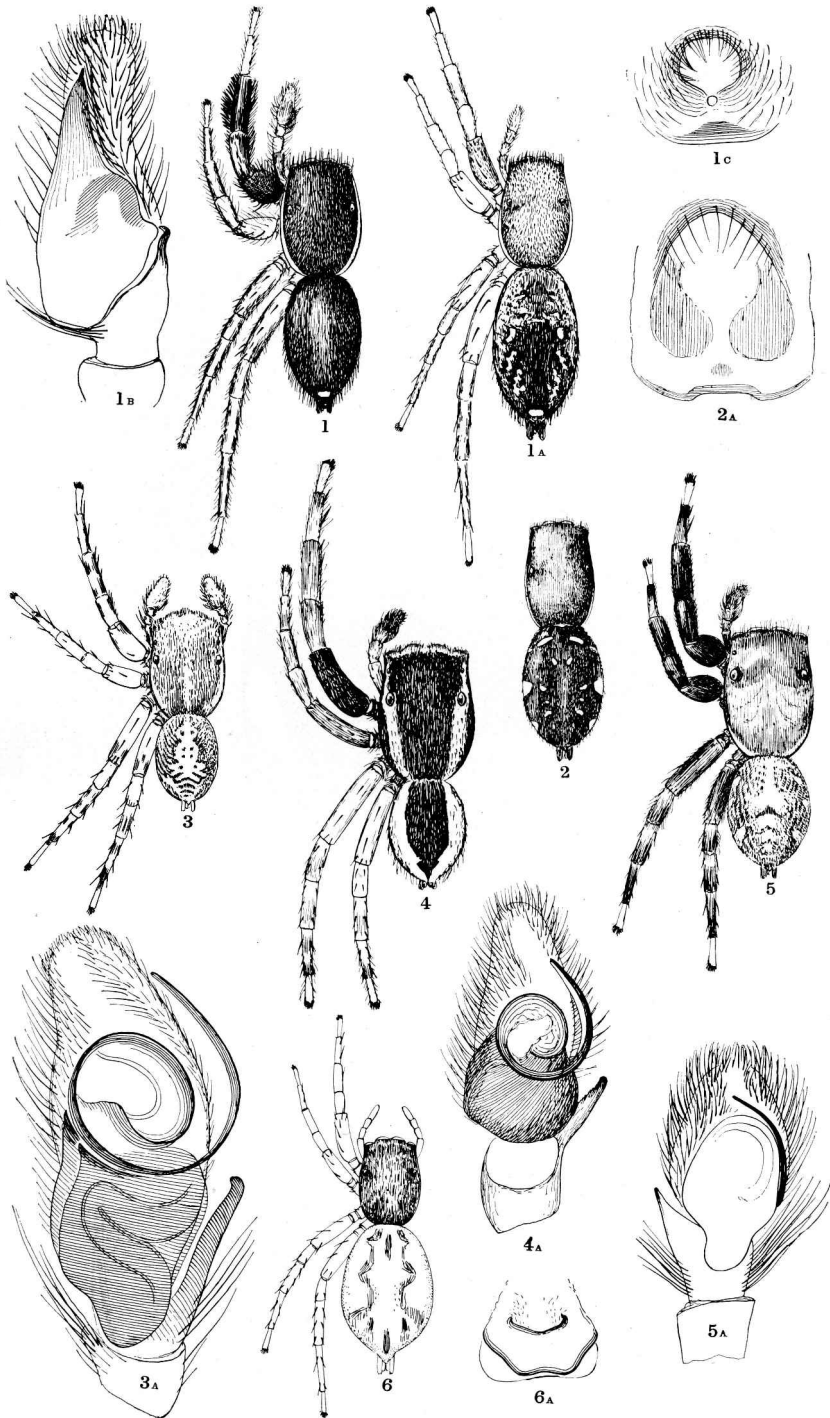
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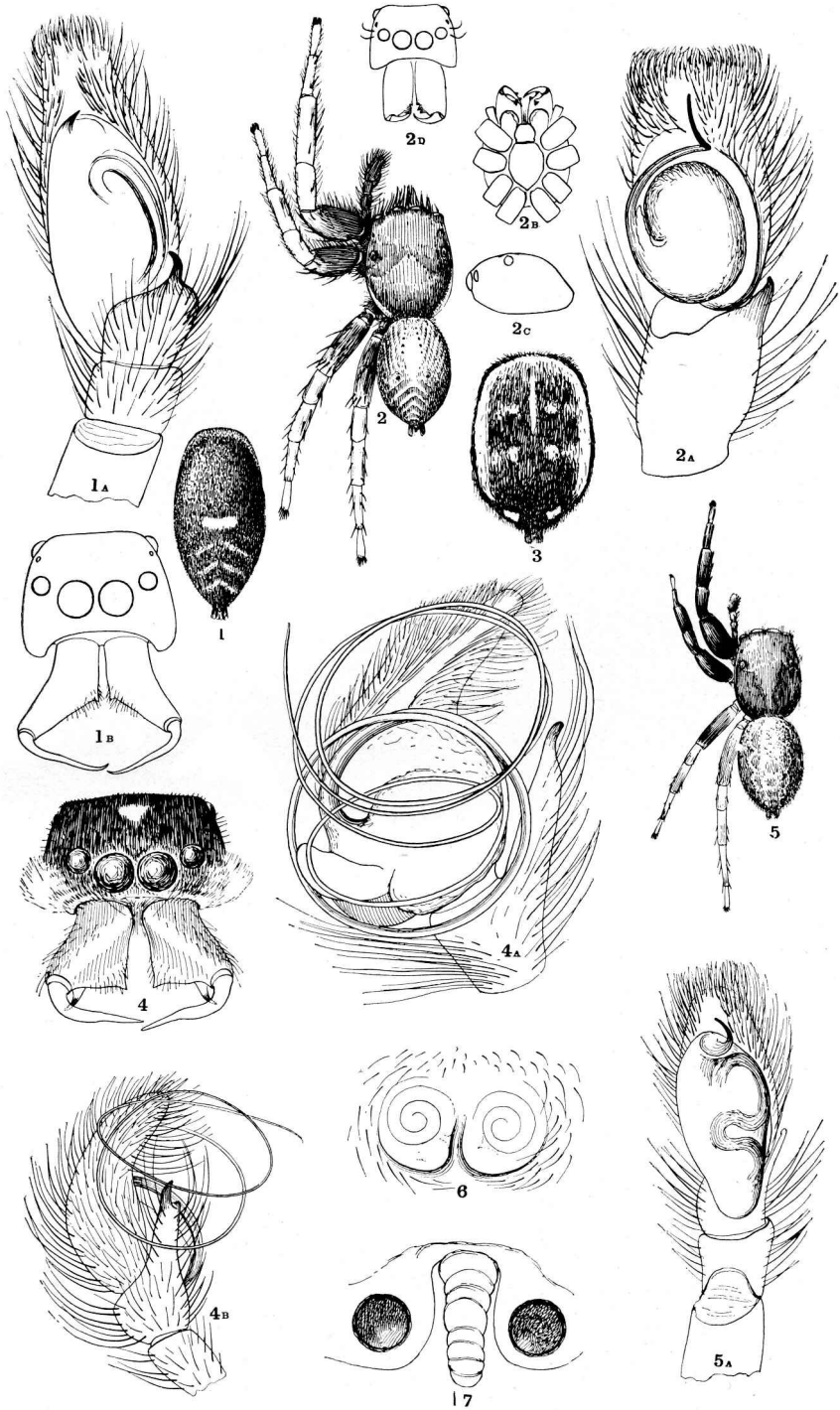
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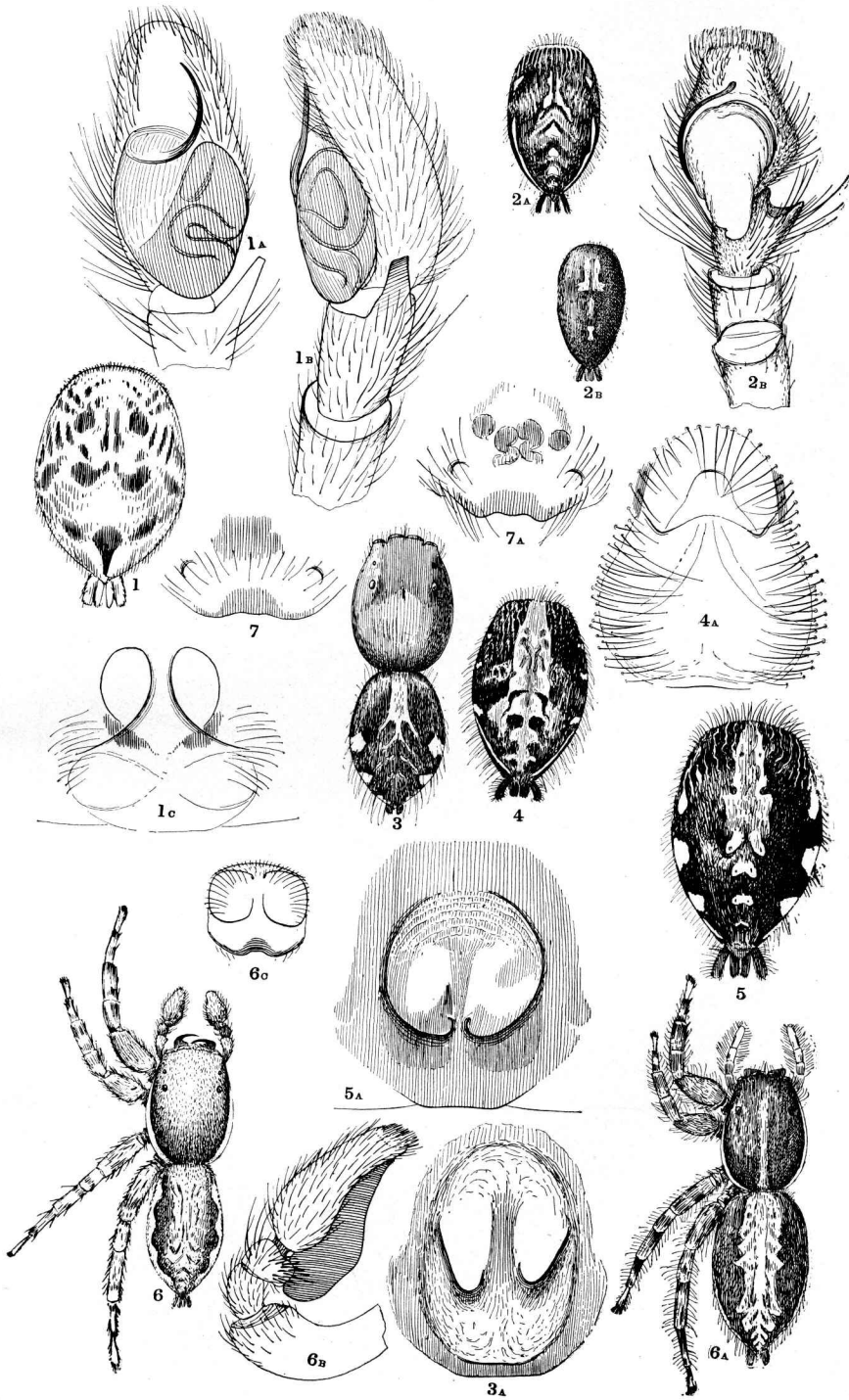
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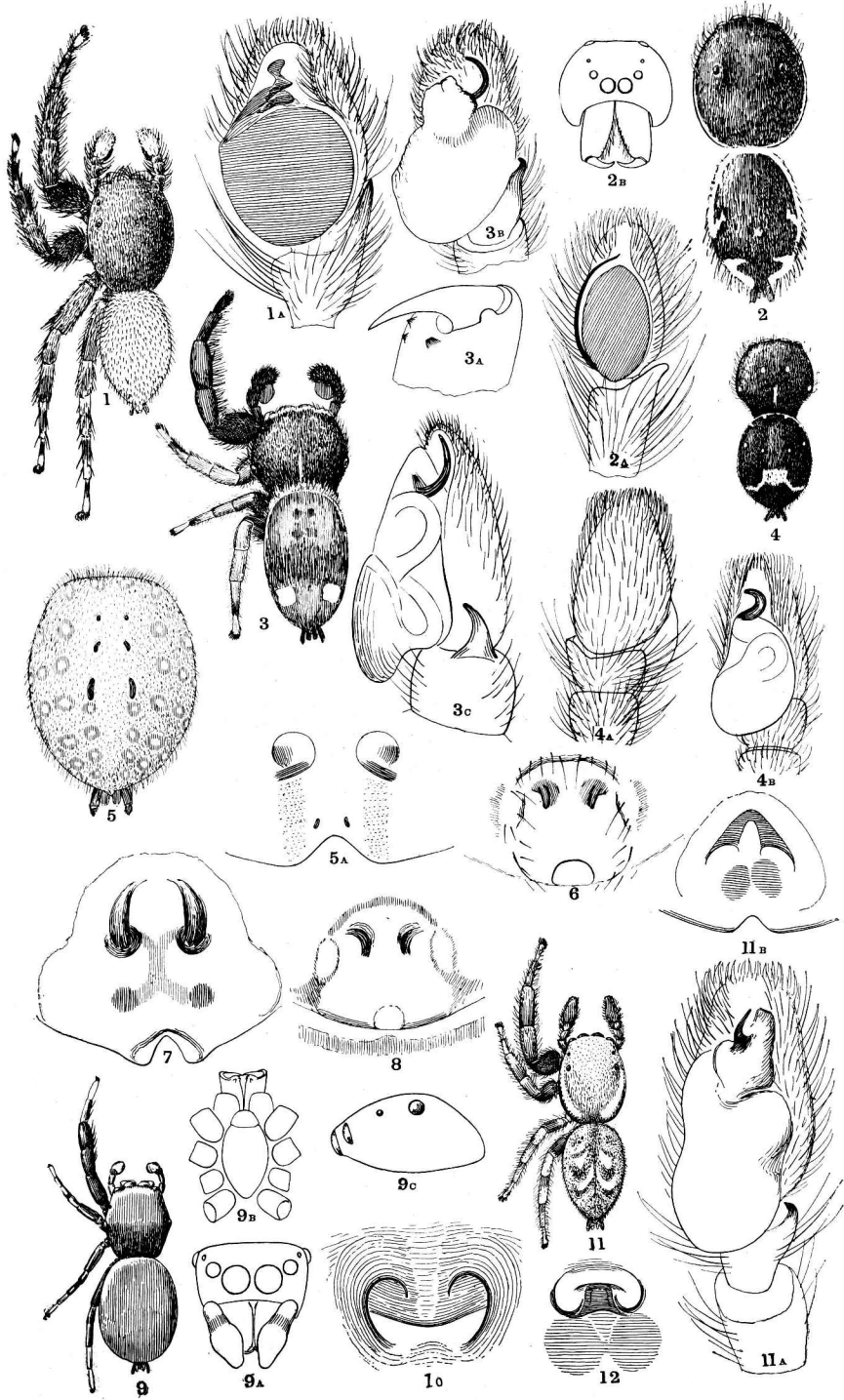
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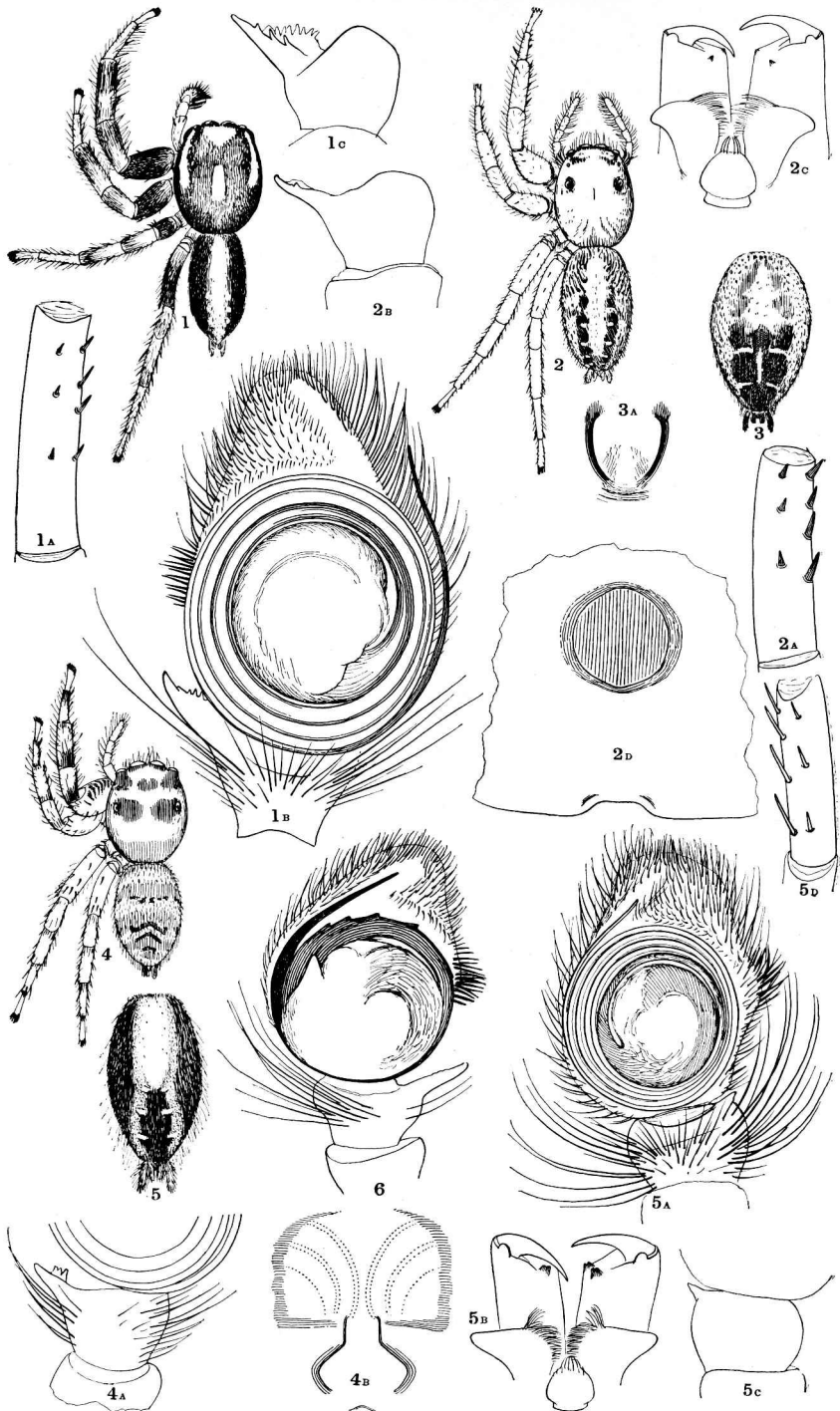
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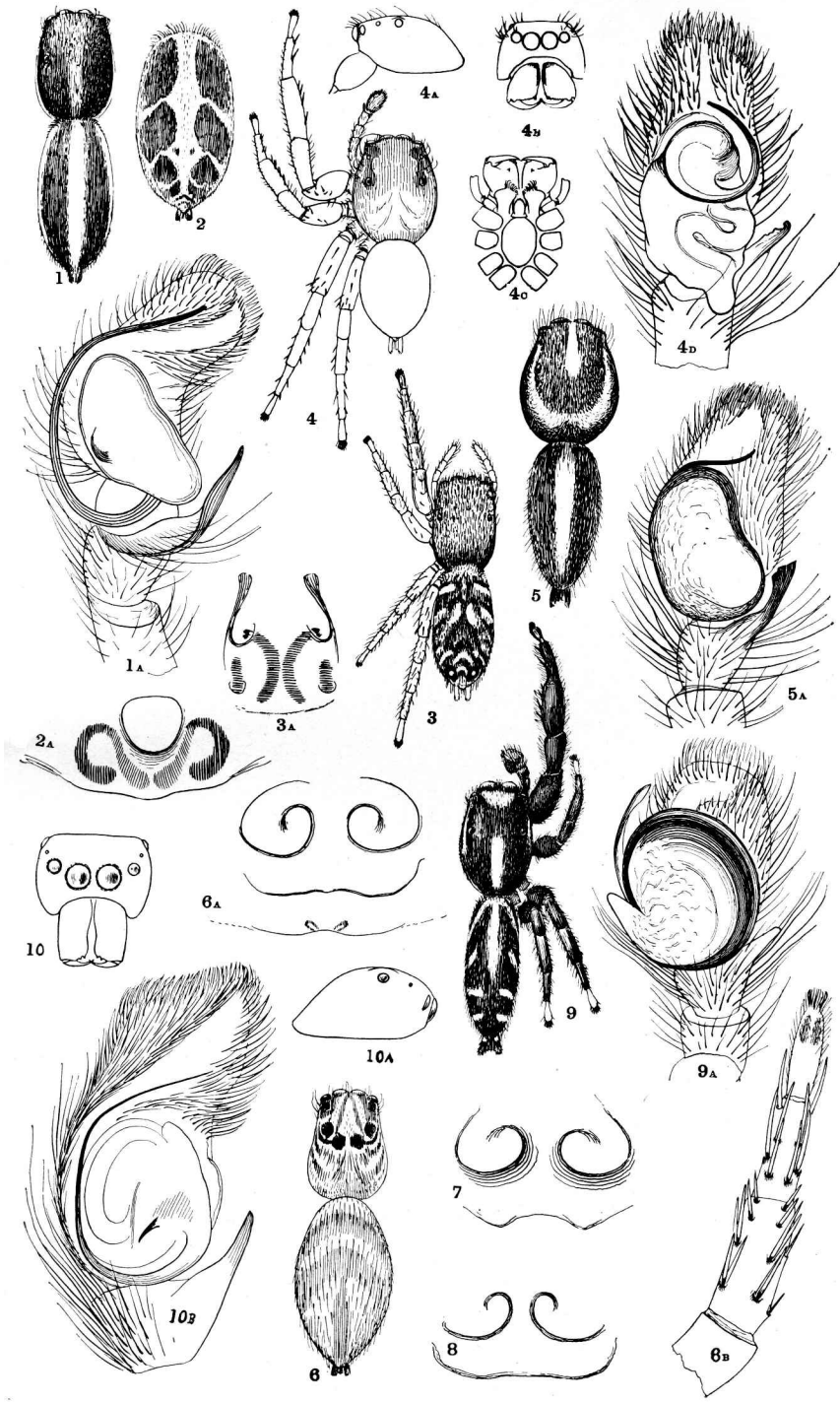
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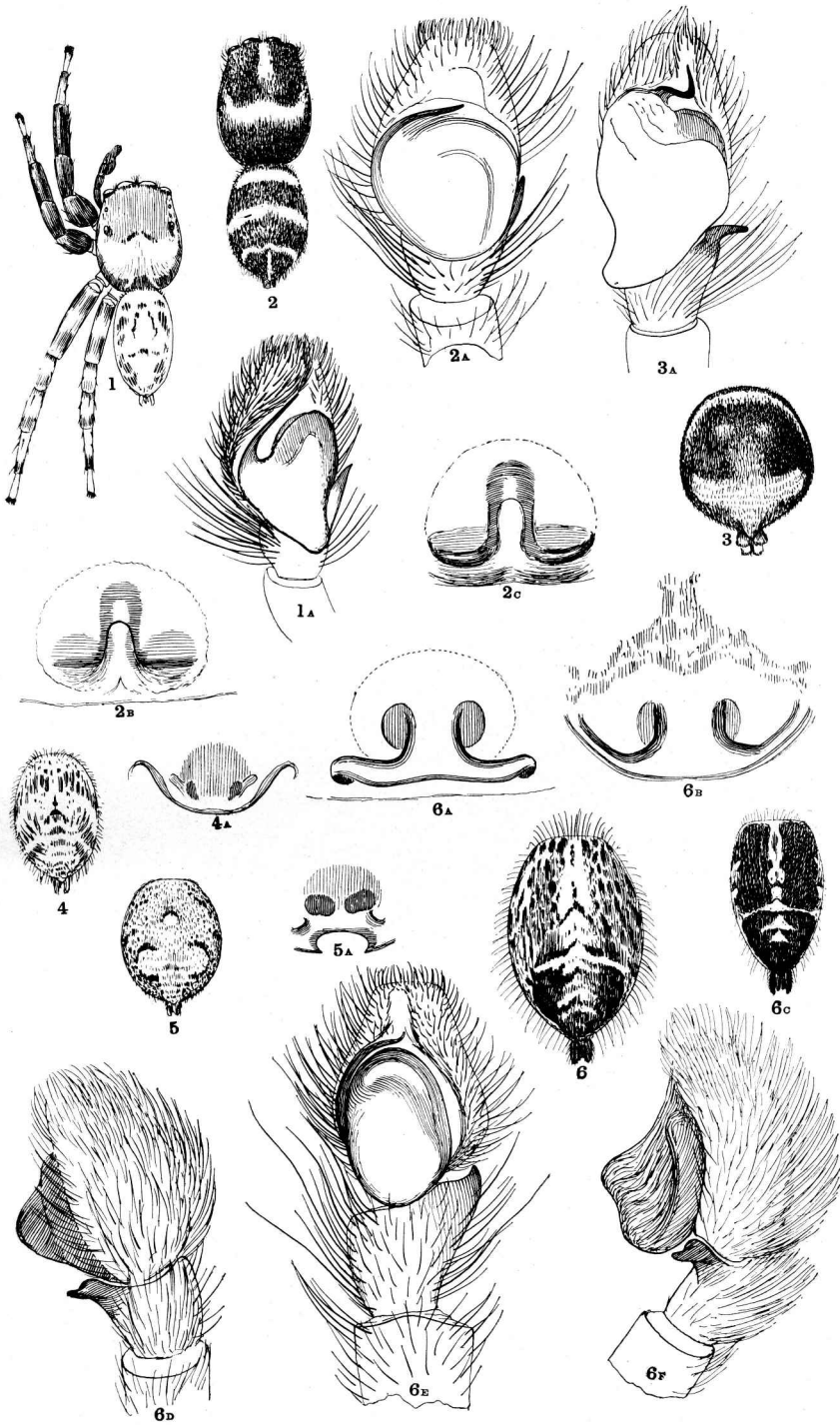
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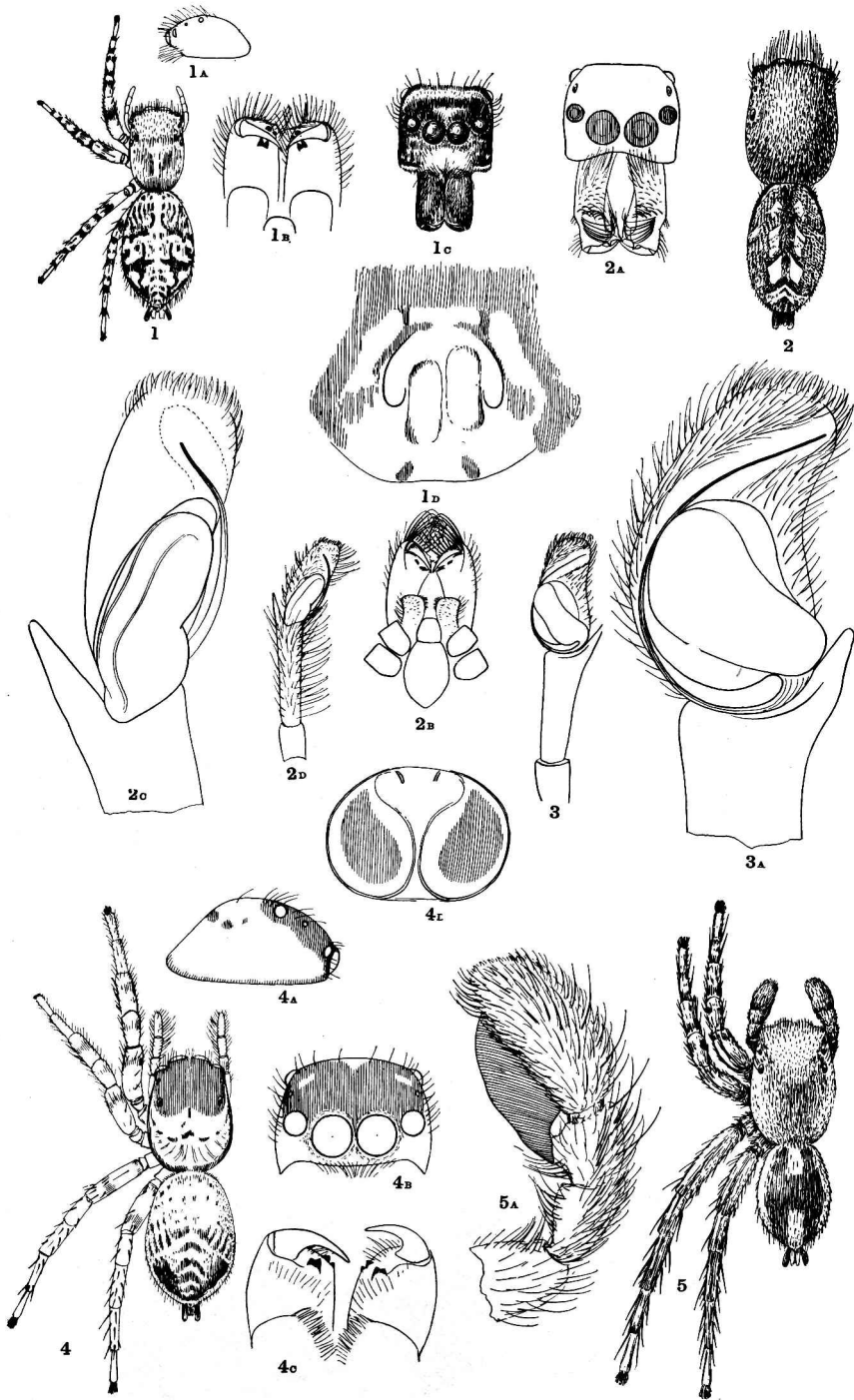
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- Fig. 5, *Langona avara*, male X 6; 5a, palpus.



## EXPLANATION OF PLATE XXIX.

- Fig. 1, *Mexcala rufa*, male X 4; 1a, palpus; 1b, side of cephalothorax; 1c, sternum and mouthparts; 1d, mouthparts and falces.
- Fig. 2, *Mexcala elegans*, male X 4; 2a, sternum and mouthparts; 2b, side of cephalothorax; 2c, palpus; 2d, young female X 4, under alcohol.
- Fig. 3, *Kima africana*, male X 4; 3a, palpus; 3b, sternum and mouthparts; 3c, side of cephalothorax; 3d, first row of eyes.
- Fig. 4; *Kima variabilis*, male X 5; 4a, sternum and mouthparts; 4b, palpus.
- Fig. 5, *Myrmarachne solitarius*, palpus; 5a, falx of male from below.
- Fig. 6, *Myrmarachne Marshallii*, falx of male from below; 6a, epigynum.

