

DESCRIPTIONS OF NEW GENERA AND SPECIES OF
SOUTH AFRICAN SPIDERS.

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Plates X., XI.

The present paper contains descriptions of 4 new genera and 62 new species of South African Spiders contained in the Collection of the South African Museum.

With the exception of 3 new species of *Prodidomidae*, all of them belong to the groups *Mygalomorphæ* (*Migidae*, 1 n. sp.; *Ctenizidae*, 1 n. gen. and 5 n. spp.; *Barychelidae*, 2 n. spp.), *Cribellatae* (*Uloboridae*, 1 n. gen. and 3 n. spp.; *Dictynidae*, 4 n. spp.; *Eresidae*, 6 n. spp.), and *Ecridellatae Haplogynæ* (*Sicariidae*, 19 n. spp.; *Dysderidae*, 1 n. gen. and 11 n. spp.; *Caponiidae*, 1 n. gen. and 8 n. spp.).

FAMILY MIGIDÆ.

MOGGRIDGEA NIGRA, n. sp.

2 ♀ ♀ (Nos.* 12761-2) with their nests, found in a wall at Ashton, Robertson Div., Cape Colony, by Mr. T. O'Connor in May, 1903. Very closely allied to *M. coegensis*, Purc. (Ann. S. Afr. Mus., vol. iii., p. 71).

Colour much darker, dark brown to nearly black, the 2 posterior pairs of legs and the patellæ of the 2 anterior pairs a little lighter; under surface (also of abdomen) pale ochraceous or greenish ochraceous, the coxæ of the pedipalps and the labium reddish-yellow.

Carapace longer and less rotundate, its width not more than $1\frac{3}{4}$ times that of the ocular area (the width of the carapace in *M. coegensis*

* Numbers in Museum Catalogue.

being almost twice that of the ocular area), its length equal to or less than that of the fourth tibia and metatarsus.

Total length (including chelicera) 19 mm.; length of carapace 8, width $6\frac{4}{5}$.

Nests.—The nest consists of a longish oval sack, which was evidently embedded in the mud wall. The opening is placed at one end of the longer surface, so that the door when closed lies parallel to the long axis of the sack. The door itself is D-shaped, thick and rigid, but thinner at the edge, like that of *M. mordax*, Purc. (Ann. S. Afr. Mus., vol. iii., p. 70, fig. 1), but with a narrower hinge. The upper surface of the door is covered with mud and small pebbles, while the lower surface is lined with white web and is slightly concave, becoming convex only towards the margin. The centre of the under surface is either without pits or is provided with several pairs. Length of a nest 50 mm., width at 10 mm. from opening 16. Width of door taken parallel to hinge $21\frac{1}{2}$, at right angles to hinge $16\frac{1}{2}$; width of hinge $16\frac{1}{2}$, thickness of door in middle $2\frac{1}{4}$; width of carapace of occupant $6\frac{1}{2}$.

FAMILY CTENIZIDÆ.

GEN. IDIOPS, Perty.

IDIOPS PUNGWENSIS, n. sp.

1 ♂ (No. 13576) from the north side of the Pungwe River in Portuguese East Africa, about 50 miles east of Umtali, at an altitude of about 2,100 feet (*D. L. Patrick*). Very like *Ctenolophus cregoei* (Purc., Trans. S. A. Phil. Soc., vol. xi., p. 352, 1902), but differing principally in the following respects:—

Colour pale ochraceous, in parts, especially the posterior part of the cephalic area and the anterior pair of legs, rufescent, the tibiae of these legs deep red on the inner side at apex; granular areas on cephalic portion of carapace infuscate; under side pale yellowish; abdomen purplish-black above.

Carapace granular, with a pair of spines posterior to the ocular area; its length equal to that of the metatarsus and $\frac{2}{3}$ of the tarsus of first leg. Ocular area short, its length only slightly exceeding $\frac{1}{2}$ of the distance from its anterior margin to the middle of the fovea. Area formed by the four anterior eyes decidedly wider behind than in front, its length scarcely $1\frac{1}{2}$ times its posterior width; frontal eyes very prominent, somewhat conically pointed above, close together but separated by a deep cleft. Posterior median eyes 3–4

times as far from one another as from the lateral eyes, the latter regularly oval and not attenuated behind, scarcely reniform; area formed by the 4 median eyes much wider than long and only very slightly wider behind than in front.

Pedipalps.—Tibia moderately turgid, its length more than twice its height (which is equal to the length of the tarsus) and less than twice the length of the patella, the short spines and spinules bordering the notch irregularly uniseriate in the distal half of the band but about 4-seriate in the broad proximal half, which ends behind the middle of the under surface. Tarsus with an apical group of spines, its outer distal angle produced into a narrow lobe; process of bulb large, very thick, the distal portion curving forwards and concave in front, the apex broad, rounded externally but angular internally, and provided behind with a short curved spine.

Legs.—*Tarsi* I.–II. with 0 inner and 3–4 outer spines, III. with 2 anterior and 3 posterior spines, IV. with 1 inner and 4–5 outer spines. *Metatarsus* I. slightly curved and slightly thickened near the middle, its inner side not concave and only slightly thickened near the middle where it is unarmed or provided with a short spine, the apex with 2 spines; outer side with 6 inferior spines, extending to near base. *Tibia* I. a little shorter than the metatarsus.

Sternal sagilla small, submarginal, the posterior pair a diameter and a half from the edge.

Chelicera with two well-developed rows of teeth below, each composed of 3–4 large teeth alternating with two small teeth, the rows of equal length.

Total length (including chelicera) 12 mm., length of carapace $4\frac{3}{4}$, length of first tibia $3\frac{1}{4}$.

GEN. CTENOLOPHUS, n. gen.

Allied to *Idiops*. Chelicera with a single row of large teeth below, the teeth of the outer row being reduced to a few small posterior denticles remote from the anterior end of lower margin; the apical process rather large and well developed. Posterior row of eyes procurved, the lateral eyes emarginate internally, the area formed by the 4 median eyes wider behind than in front in the ♀. Labium slightly (type) or more considerably broader than long, with 2–4 apical teeth in a single row. Sternum with 2 pairs of small marginal sagilla. Coxæ of third pair of legs without (type) or with a strip of stout setæ along hind margin of under side; anterior coxæ without spinules on the sides.

Type: *C. kolbei* (Purc.) (Trans. S. A. Phil. Soc., vol. xi., p. 353, 1902, sub *Acanthodon*).

The following species also belong to this genus:—

C. kentanicus (♀), *C. spiricola* (♀), *C. cregoci* (♂) and *C. pectinipalpis* (♂), (Purc.), all described under *Acanthodon*. In the two latter (males) the area formed by the 4 median eyes is parallel-sided.

The following is a synopsis of the South African *Idiopinae** known to me:—

- a. Under side of chelicera with both outer and inner row of teeth well developed and reaching to distal margin.
 - a¹. Tibia of third leg impressed above at base (Gen. *Heligmomerus*). Selati Distr., Transvaal ♀ *H. caffer*, † Purc.
 - b¹. Tibia of third leg not impressed above at base (Gen. *Idiops*).
 - a². ♀ ♀.
 - a³. Anterior surface of coxæ of first two pairs of legs thickly covered with short, sharp spinules. Area formed by the 4 median eyes broader behind than in front. Umtali, Mashonaland.
 - I. versicolor* (Purc.).
 - b³. Coxæ of legs without spinules. Area formed by the 4 median eyes parallel-sided. Johannesburg *I. fryi* (Purc.).
 - b². ♂. Portuguese East Africa (Pungwe River) .. *I. pungwensis*, n. sp.
- b. Under side of chelicera with an inner row of 4–6 strong teeth, which extends from distal margin to middle, and is flanked on outer side at posterior end by a very short single or double series of teeth.
 - a⁴. Sternum with 2 pairs of sagilla, the anterior pair marginal, the posterior pair marginal or submarginal, at most about their own length from the lateral margin. Under side of chelicera with 2–9 small or minute outer flanking teeth in middle.
 - a⁵. Abdomen soft-skinned (Gen. *Ctenolophus*, n.g.).
 - a⁶. ♀ ♀.
 - a⁷. Coxa of third leg with a strip of stout spiniform setæ along posterior margin of lower surface. Frontal eyes large and very close together; ocular area long, almost $\frac{1}{2}$ of the length of the carapace. Kentani Distr. *C. kentanicus* (Purc.).
 - b⁷. Coxa of third leg with slender setæ. Frontal eyes further apart, placed on quite separate tubercles; ocular area short, less than $\frac{1}{4}$ of the length of the carapace.
 - a⁸. Abdomen with setigerous tubercles above. Size larger. Kentani Distr. *C. kolbei* (Purc.).
 - b⁸. Abdomen without tubercles above. Size smaller. Kentani Distr. *C. spiricola* (Purc.).
 - b⁶. ♂ ♂.

* The generic position of the following South African species is not known to me: *Acanthodon flaveolum*, *hamiltoni*, *ochreolum*, and *pretoriae*, Poc., *Idiops thorelli*, O. P. Cambr.

† *H. deserti*, Pocock (Ann. Mag. N. H. (7), vol. vii., p. 286, 1901), from the Kalahari Desert is not known to me.

- a*⁹. Distal portion of process of palpal organ flattened and broad, strongly bent. Durban *G. cregoei* (Purc.).
- b*⁹. Distal portion of process of palpal organ slender and subterete, slightly curved. Zululand *G. pectinipalpis* (Purc.).
- b*⁵. Abdomen hard-skinned above (Gen. *Galeosoma*). Johannesburg.
♀ *G. scutatum*, Purc.
- b*⁴. Sternum with 3 pairs of sagilla, all of them remote from the margin. Under side of chelicera with 2 (sometimes 1) powerful outer flanking teeth in middle, sometimes accompanied by a smaller posterior third tooth (Gen. *Gorgyrella*).
- a*¹⁰. Coxa of first leg with large denticulate area, which is almost as extensive as that on coxa of second leg. Van Rhyns Dorp and Namaqualand Divs. ♀ *G. namaquensis*, Purc.
- b*¹⁰. Coxa of first leg without denticulate area, or this area very much less extensive than that on coxa of second leg. Hanover Div.
♀ *G. schreineri*, Purc.

GEN. ANCYLOTRYPA, E. Sim.

ANCYLOTRYPA CORNUTA, n. sp.

1 ♂ (No. 12801) from Dunbrody, Uitenhage Div., Cape Colony (*Rev. J. A. O'Neil*).

Colour.—Carapace and chelicera reddish-brown; sternum and legs yellowish-brown, the latter paler distally; abdomen blackened above and at the sides, pallid below, the lung-opercula and the spinners pale yellowish.

Carapace as long as the metatarsus and tarsus of first leg, and as the metatarsus and $\frac{2}{3}$ of the tarsus of fourth leg, provided with a few black spines and fine setæ behind. *Ocular area* over $2\frac{1}{2}$ times as wide as long and a trifle wider behind than in front; both margins of anterior row of eyes (seen from above) a trifle procurved, the median eyes rather small, much smaller than the laterals, and scarcely, if at all, longer than the posterior laterals; posterior row of eyes as in *A. pusilla*, Purc. (*Ann. S. Afr. Mus.*, vol. iii., p. 27, 1903), except that the median eyes are oval.

Pedipalps.—Femur produced at apex above into a *short obtuse horn*, behind which are a pair of low tubercles; palpal organ much as in *A. pusilla*, except that the spine is longer, with the thick basal portion also slightly (spirally) curved.

Legs.—*Tarsi* scopulate, I. with a double (irregular) row of about 14 small, stout spines below, beside a distal spine on the outer surface; II. with about 7 inferior but no outer spines; III. with 1-2 dorsal and about 7 outer and 3 inner spines, besides 1-2 in the scopula; IV. with about 4 spines along inner lower edge, 8 (several paired) along outer lower edge, and 5 smaller ones in the scopula. *Metatarsi* with small distal patch of scopular hairs, the anterior

pairs slightly curved; I. with 13-16 rather short spines below, roughly arranged in 2 rows, the inner surface with a strong mesial spine besides; II. with 6 outer and 3 inner spines below, besides a mesial one on the inner surface. *Tibia* I. very slightly curved, scarcely longer than the metatarsus, with 5 rows of spines, viz., an outer row of 3, an outer inferior row of 6, an inner inferior row of 4-5, and an inner row of 3, besides an odd apical and sometimes a basal spine situated between the two latter rows.

Posterior spinners with the apical segment acuminate, slightly longer than the middle one.

Abdomen with numerous short spines above.

Sternal sagitta slightly nearer to the margin than in *A. pusilla*.

Total length $9\frac{1}{2}$ mm.; length of carapace 4.

GEN. PELMATORYCTER, Poc.

PELMATORYCTER PALLIDIPIES, n. sp.

1 ♂ (No. 12780) from Matjesfontein, Cape Colony, October, 1903 (*W. F. P.*).

Colour.—Carapace pale ochraceous and lightly infuscated in places on the thoracic portion, the cephalic portion brown; chelicera darker brown; legs, sternum, coxæ, and abdomen pale yellowish, the 4 distal segments of first leg reddish, the sternum slightly infuscated at anterior and lateral margins, the abdomen blackened on the dorsal surface and round the group of spinners; hairs black.

Carapace as long as the tibia and $\frac{1}{2}$ the metatarsus, but slightly exceeding the metatarsus and tarsus of first leg, and a little shorter than the metatarsus and tarsus of fourth leg; posterior marginal spines subsetiform, present above the coxæ of fourth pair of legs only, the posterior surface with a few sigmoid spines.

Ocular area a little wider behind than in front; the anterior row slightly procurved, the eyes equi-distant, the laterals large, about $\frac{1}{3}$ longer than the medians; the posterior row strongly recurved, the lateral eyes long, oval, distant about their own length or slightly less from the anterior laterals and a little longer than the anterior medians; posterior median eyes slightly oval, about two-thirds as long as the laterals.

Pedipalps as in *P. nigriceps* (Purc.) (*Trans. S. Afr. Phil. Soc.*, vol. xi., p. 358, 1902), except that the spine of the palpal organ is a little longer than the bulb.

Legs.—*Tarsus* I. rather thinly scopulate, lightly concave on under side and not inflated, without spines; II.-IV. slightly inflated below,

being convex along under side and more densely scopulate, II. also unspined, III. with 1 dorsal spine, IV. with 0-1 spine on inner surface at apex and 2 on outer surface. *Metatarsi* I. and II. not scopulate, I. slightly concave along both inner and under sides, under surface with 0-1 inner (basal) and 3 outer spines, outer surface with 1 inferior apical spine, and inner surface with 1-2 (mesial and basal) spines; III. and IV. with small apical patch of scopular hairs. *Tibia* I. as long as the metatarsus, the under side with a double row composed of 5 outer and 4 inner spines, the outer side besides with 1 and the inner side with 5 other spines.

Abdomen with some long setiform spines at base above. *Posterior spinners* with the apical segment subequal to or slightly longer than the middle segment, these 2 segments together longer than the basal segment.

Sternal sagilla as in *P. nigriceps* (Purc.).

Total length (including chelicera) $12\frac{1}{2}$ mm.; length of carapace $5\frac{1}{4}$.

GEN. SPIROCTENUS, E. Sim.*

1. SPIROCTENUS PALLIDIPES, n. sp.

Specimens.—6 ♂♂ and 18 ♀♀, all adults, collected at Touws River Station, Worcester Div., by my wife, Mr. R. M. Lightfoot, and myself in August, 1903.

Closely allied to *S. lightfooti*, (Purc.) (Trans. S. A. Phil. Soc., vol. xi., p. 363), which it resembles in most respects.

Colour pale yellowish, the chelicera reddish ochraceous, the carapace often faintly infuscated, the dorsal surface of the abdomen with a well-defined pattern composed of a series of arcuate, transverse, black or purplish-black stripes united by a median longitudinal stripe, the anterior stripe not expanded into a large patch; sides of abdomen and under surface without marks, excepting a black spot above and sometimes a smaller one in front of each of the posterior spinners; legs very pale yellowish, concolorous, the femora not darker than the distal segments.

♀♀. *Carapace* as long as or slightly longer than the tibia and $\frac{1}{2}$ the metatarsus of fourth leg, but a little shorter than or subequal to the tibia and metatarsus of first leg; fovea a deep transverse

* According to Simon *Spiroctenus*, E. Sim. = *Hermachastes*, Poc., and I may add that *Bemmeris pardalina*, E. Sim. (Bull. Soc. Ent. Fr., 1902, p. 42), is evidently an immature example of *Hermachastes collinus*, Poc., while *Ctenonemus pectiniger*, E. Sim. (*ibid.*, p. 43), is also a young *Hermachastes*. Both these genera, therefore, must be added to the synonyms of *Spiroctenus*.

(rarely slightly recurved) cavity. Anterior lateral eyes oval, not large, and about as long as the strongly convex anterior median eyes.

Chelicera longish, with the spines and spiniform setæ of the rastellum in a single row, numerous but not very densely crowded together; the under surface (measured along the groove) longer than the median length of the sternum; the outer row of teeth very feeble, composed of 5-9 minute granules, occupying not more than the middle third of the inferior groove, and less (generally much less) than half as long as the inner row.

Posterior spinners with the apical segment as long as the penultimate one or only slightly shorter.

Labium with 0-4 apical teeth. *Coxæ of pedipalps* with few (2-14) teeth at base.

Legs without scopulæ. *Metatarsi* I. and II. with 2 (rarely 1) inner and 3-4 (rarely only 2) outer spines below (the outer apical spine being generally duplicated); II. with 1-2 superior inner spines as well; IV. and generally also III. with an infero-posterior apical tuft of 2-4 small spiniform setæ placed between 2 stout spines. *Tibiae* I. and II. with 0-1 inner and 3 outer spines below (the proximal ones slender and often setiform at apex), and 1-2 slender spines in upper part of inner surface. *Claws* of anterior legs with 5-6 (rarely 4) teeth in the basal row, and 5-7 small teeth in the row nearest the axis of the leg, these rows overlapping for a small portion of their length; claws of fourth leg with 4-6 teeth in the basal row and 3-5 in the distal row.

♂♂. *Carapace* a little longer than the first but considerably shorter than the fourth metatarsus. Fovea slightly recurved.

Chelicera with the inferior groove subequal to or longer than the median length of the sternum, the inferior teeth as in the ♀.

Labium muticous. *Coxæ of pedipalps* with 0-6 teeth at base.

Pedipalps.—Spine of palpal organ longer than the bulb, conical and thick in basal half but slender and filiform in the distal part.

Legs.—*Tarsi* muticous, lightly curving upwards distally, the under surface with rather thin scopula, which is distinctly divided in I.-III. by a row, and in IV. by a narrow band of black bristles. *Metatarsi* I. and II. straight or lightly incurved, their under side sparsely scopulate distally and provided with 2 inner and 4-5 outer spines, the outer surface besides with 2-3 upper spines, and the inner surface with 1 distal and 1 nearly straight mesial spine; III. also sparsely scopulate distally; IV. with very few or scarcely any scopular hairs. *Tibia* I. only slightly or hardly at all incrassated distally, spurred as in *lightfooti*, but more numerous and stoutly

spined, the under surface having 1-2 inner, 3 outer, and often 1-2 mesial spines, the outer and inner surfaces each with 2-4 other spines in addition; the inner apical spine on under surface stout but much slenderer than the adjacent spur and situated close to it on its inner side, the spur and spine being separated at base by not more than the width of the spur.

Length of trunk (carapace + abdomen), ♂ ♂ $11\frac{1}{3}$ -14 mm., largest ♀ 20; length of carapace, ♂ ♂ $5-5\frac{1}{2}$, ♀ 7.

Nests.—The nests, of which I dug up a large number in the loose

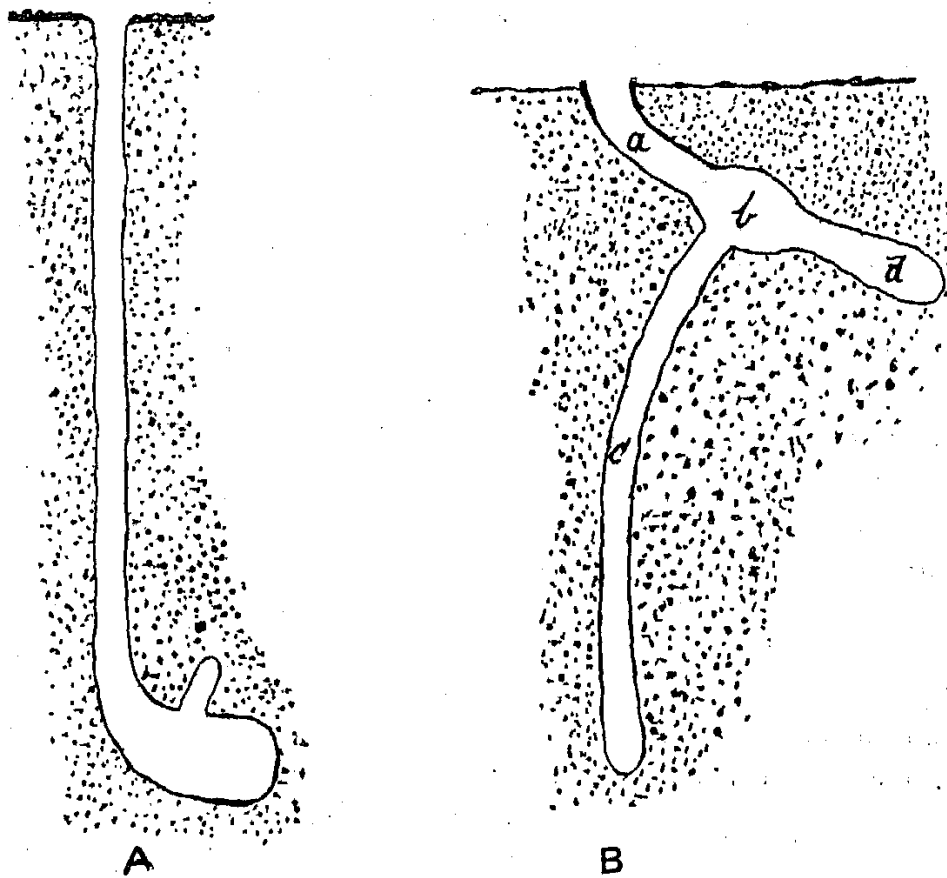


Fig. A. Burrow of *Spiroctenus pallidipes*, n. sp., in vertical section ($\frac{1}{3}$ nat. size).

Fig. B. Burrow of *S. pectiniger* (E. Sim.) in vertical section ($\frac{1}{3}$ nat. size).

red sand near the river, were all built on the same plan, and consisted of a vertical burrow, sometimes inclined for 2-3 cm. at the entrance, where it is about 8-11 mm. in diameter, while at a depth of about 18-23 cm. the burrow curves sideways and enlarges into a chamber $2\frac{1}{2}$ cm. or more in diameter and generally about 5 cm. in length. At $2\frac{1}{2}$ - $7\frac{1}{2}$ cm. from the end of the chamber in its upper wall is a small side chamber just large enough to contain the spider, and here she almost always hides when her burrow is dug up. This side-chamber is sometimes nearly vertical and sometimes nearly

horizontal. In the large chamber remains of beetles were generally found. The burrows were generally very deep, frequently 35 cm. in depth, but sometimes (in hard clay) only 18 cm. Most of the burrows were without any silken lining (owing, perhaps, to the moist nature of the soil at the time, which prevented the sand from falling in), but in some cases the upper part was lined with web. No attempt at a turret round the entrance was met with.

The ♂♂ were mostly found under stones and old tins, but one was discovered in a burrow $7\frac{1}{2}$ cm. deep.

S. pectiniger (*Otenonemus pectiniger*, E. Sim.), of which we obtained 3 ♂♂, 14 ♀♀, and 3 juv. at Matjesfontein, is very closely allied to *pallidipes*, n. sp., from which the ♀ differs as follows: Colour slightly darker, the legs tinged with greenish; abdomen with large patch of blackish-purple in front, the posterior stripes also often continued down the sides. Chelicera shorter, the length of the inferior groove subequalling but not exceeding the median length of the sternum, the outer row of teeth below longer and much stronger, its length being $\frac{1}{2}$ (rarely only $\frac{2}{3}$) of that of the groove and exceeding (rarely subequalling) half that of the inner row, the teeth 10–16 in number, the posterior part of the row being frequently doubled and the anterior ones much stronger than in *pallidipes*. The ♂ differs further in having the scopulæ in tarsi I.–III. denser and broader and practically entire, the setæ of the dividing line being very minute or obsolete, the fourth tarsus quite without scopula, and the inner apical spine on under side of first tibia placed more proximally to the distal spur, the spur and spine being separated at base by nearly or quite twice the width of the spur.

I also examined a large number of the nests of *pectiniger*, which were common everywhere from the river to the tops of the hills. Fig. B, which was sketched from an actual nest, represents the general plan upon which these nests are constructed, and shows (a) a short, inclined, silk-lined tube, 11 mm. in diameter at the entrance and $4\frac{1}{2}$ cm. in length, leading into (b) an enlarged chamber, 23 mm. in diameter, out of which two other tubes lead, namely, (c) a deep and more or less vertical burrow, $9\frac{1}{2}$ mm. in diameter and descending to a depth of about $20\frac{1}{2}$ cm. from the surface, and (d) a short and more horizontal burrow 42 mm. in length. At the entrance the burrow is, as a rule, not more than 13 mm. in diameter (rarely as much as 16 mm.), and the silken lining spreads out slightly and is either flush with the surface of the ground or more generally projects slightly to form a very short turret, which does not, however, exceed $3\frac{1}{2}$ mm. in height, and is covered with bits of wood and stone adhering to its outer surface. The short blind chamber (d) is very variable in position,

being sometimes directly opposite the entrance tube and in a line with it, but often to the right or left of it; it may also descend or ascend slightly or be horizontal. It seems to be used as a dining-room, for it almost always contained remains of insects, sometimes in considerable quantities. The deepest tube is always narrower than the entrance tube, and descends to a depth of about $20\frac{1}{2}$ cm., and sometimes even as much as $25\frac{1}{2}$ cm. The spider was always found at the bottom of this, the deepest burrow.

2. SPIROCTENUS LATUS, n. sp.

1 ♂ (No. 12804) from Wellington (*G. French*, October, 1903).

Colour.—Carapace reddish-yellow, the head and the median part behind infuscated, the margins blackened; chelicera dark brown, reddish-yellow at base; legs infuscated, also below, paler at distal extremity, especially below, the patellæ pale yellowish to reddish-yellow on the naked strips above; coxæ and sternum pale ochraceous; abdomen pale yellow, the dorsal and upper part of lateral surfaces with thick black reticulation, ventral surface with a transverse row of black marks before the spinners, the lung-opercula brownish laterally.

Carapace as long as the metatarsus and $\frac{2}{3}$ of the tarsus of the fourth leg, but subequal to the tibia and metatarsus and longer than the metatarsus and tarsus of first leg. Eyes disposed much as in *S. collinus* (Poc.), the anterior laterals much larger than the anterior medians and posterior laterals, the posterior medians very small, much smaller than the other eyes.

Chelicera with the inferior groove much shorter than the median length of the sternum, the outer row of teeth in the groove extending forwards a little beyond the middle of the inner row and composed of numerous minute teeth, the row duplicated behind.

Labium with 2 apical teeth. *Coxæ of pedipalps* with about 25 basal teeth.

Sternum with the sagilla of the posterior pair narrow, elongate.

Posterior spinners short, the apical segment almost hemispherical and about half as long as the penultimate segment.

Pedipalps.—Tibia with an internal spine near apex; spine of palpal organ shorter than the bulb, conical at the base but finely subulate distally.

Legs short. *Tarsi* muticous, those of the third pair slightly curving upwards at base, the others quite straight, I.—III. scopulate below, the bristles along the middle of the scopula very minute, almost obsolete in I. and II., distinct but very slender in III.; IV.

without scopula. *Metatarsus* I. strongly curved, being concave below in the basal two-thirds, the under side scopulate distally and provided with 1 inner and 3 outer spines, the outer surface besides with 1 spine and the inner surface with a pair of strong mesial spines; II. only slightly curved, scopulate distally, with 1-3 inner and 2-3 outer spines below, the outer surface besides with 0-1 spine and the inner surface with 2-4 other spines; III. and IV. not scopulate distally. *Tibia* I. stout, only slightly incrassated distally, the 2 spurs resembling those of *S. collinus*, the under surface with 1-2 inner and 3 outer spines, the outer surface with no other spines but the inner surface with 3; the inner apical spine on under surface situated as in *pallidipes*, n. sp.

Length of trunk $10\frac{1}{2}$ mm., of carapace 5; width of carapace $4\frac{1}{4}$.

A very distinct species, related to *S. collinus* (Poc.), *tricalcaratus* and *goldi* (Purc.), but with much slenderer palpal spine and darker and shorter legs. In the shortness of its legs it resembles *S. light-footi* (Purc.).

FAMILY BARYCHELIDÆ.

HARPACTIRELLA SCHWARZI, n. sp.

1 ♀ (No. 12928) from Vleikuil, north of Blyde Berg, Willowmore Div., Cape Colony (*E. H. L. Schwarz*).

Closely allied to *H. karrooica*, Purc. (Trans. S. A. Phil. Soc., vol. xi., p. 344, 1902), but slightly darker in colour.

Carapace (measured laterally to the ocular area) slightly longer than the tibia and metatarsus of first leg. Posterior median eyes small, shortly oval or subrotund, much shorter than the anterior median eyes, and separated from the latter by their own width. (In *karrooica* these eyes are larger, more strongly truncated behind, and separated by less than half their own width from the anterior median eyes.)

Tibia of first leg slightly exceeding the metatarsus in length, but much shorter than the distance from the fovea to the posterior margin of the ocular tubercle. Anterior *metatarsi* not spined.

Apical segment of *spinners* distinctly (about $\frac{1}{2}$) longer than the middle segment but a little shorter than the ocular tubercle.

Length (including chelicera) 27 mm., length of carapace $10\frac{1}{4}$.

BRACHIONOPUS PRETORIÆ, n. sp.

1 ex. (No. 12769) from Pretoria (*J. Williamson*).

Colour brownish-yellow, the legs pale yellowish in parts; especially

below; the abdomen blackened above, with yellow dots, its under surface pale yellowish; carapace with its lateral and posterior edges finely blackened.

Carapace as long as the patella, tibia, and $\frac{2}{3}$ of the metatarsus of first leg, but shorter than the fourth tibia and metatarsus. Ocular tubercle distant only about $\frac{1}{4}$ of its length from the anterior edge of the carapace.

Legs.—*Tarsi* I. and II. with the scopula entire; III. with a row of fine setæ at most imperfectly dividing the scopula; IV. with the scopula distinctly divided by a row of long setæ. *Metatarsi* I. and II. without apical spine, the scopulæ quite entire, more extensive than in *annulatus* or *tristis*, Purc. (Ann. S. Afr. Mus., vol. iii., p. 105), the length covered by it being only a little less than that covered by the scopula of the tarsus; III. with a row of bristles imperfectly or hardly dividing the scopula; IV. with the scopula divided by a row of stout setæ. *Tibiae* I. and II. unspined, III. and IV. with longish spines on both outer and inner surfaces, besides several at the apex below.

Labium with about 21 teeth in several rows. *Coxæ of pedipalps* with dense basal patch of about 90 teeth.

Spinners very short, the apical segment hemispherical, only about $\frac{1}{2}$ as long as the middle segment, these 2 segments together about equalling the basal segment in length.

Total length about 16 mm.

This species approaches *Harpacticrella* more closely than do any of those previously described.

FAMILY ULOBORIDÆ.

GEN. MENNEUS, E. Sim.

MENNEUS DROMEDARIUS, n. sp.

1 ♀ (No. 11536) from the Pirie Bush, King Williamstown (*F. A. Pym*, March, 1902).

Carapace yellowish down the middle, blackened laterally and with several triangular yellow marks at the lateral margins; the surface clothed with minute black and brown spinules and patches of fine white hairs. Length of carapace $\frac{1}{2}$ that of the first metatarsus. Eyes agreeing with Pocock's description of those of *M. camelus* (Ann. Mag. Nat. Hist., ser. 7, vol. x., p. 326), except that the posterior medians appear larger and slightly less than 3 diameters apart; anterior row of eyes much wider than the posterior row.

Abdomen yellowish, variegated with black, the hairs and spines like those on the carapace; the under surface whitish laterally and with large dark area along middle; the dorsal process thick, cylindrical, abruptly truncated at apex, asymmetrically coloured, its length only about $\frac{2}{3}$ that of the carapace. Portion of vulva which is externally visible forming a broad transverse plate with parallel, blackened lateral edges, straight posterior margin and somewhat rounded anterior margin; within the epigastric fold the plate is broadly dilated towards each side behind.

Sternum blackened laterally. *Labium* black, the tip and the lateral margins narrowly blackened. Free portion of *maxilla* blackened laterally but white internally below.

Chelicera with a lateral and 2 anterior black stripes and with 4 teeth in the anterior and 5 in the posterior row, the fourth tooth from the distal end being the smallest in each row.

Legs yellow, variegated with black, with black spines and numerous hairs, the under side of the femora of the second and third pairs with a longer mane of reddish, white-tipped hairs.

Total length (not including chelicera) $11\frac{1}{2}$ mm.; length of carapace 4.9; length of abdomen $6\frac{1}{2}$, length to apex of tubercle $7\frac{3}{4}$, width 3.6; length of first leg (from apex of coxa) 33, of fourth leg $16\frac{1}{2}$.

GEN. AVELLOPSIS, n. gen.

Resembling the Australian form *Avella* as described and figured by O. P. Cambridge (P. Z. S., 1877, p. 574, pl. lvii., fig. 10), and differing from *Menneus*, E. Sim., in having the thorax dilated on each side at the middle, the sternum broader and the abdomen bituberculate near the middle above, but differing from *Avella* in having the tarsi in both sexes cylindrical and quite unsegmented. The head also is higher than in these two genera.

AVELLOPSIS CAPENSIS, n. sp.

Specimens.—4 ♀ ♀, 2 ♂ ♂, and a number of young (Nos. 748, 9187, 12330) from the Cape Peninsula (St. James, Camps Bay, Bergvliet Flats, Kalk Bay Mountain) (♀ ♀ in March and April, ♂ ♂ in March).

♀ ♀. *Carapace* slightly longer than half the metatarsus of first leg, strongly dilated on each side just before the middle, being strongly constricted in front of the dilation and much narrowed posteriorly; the cephalic region distinctly elevated and marked off on each side by an oblique depression, its anterior surface rather high, vertical, at least as long as half the length of the chelicera, its

upper surface depressed between the 2 posterior eyes but convex behind the depression. Integument olive-greenish or olive-brown, with a median white stripe running along the thorax and spreading over the posterior part of the head up to each posterior lateral eye; anterior surface of head more blackened and bordered behind and laterally by a transverse arcuate white line running from each anterior lateral angle upwards between the pair of median eyes on each side to the median line. Median band on carapace densely clothed with silvery-white hairs, which extend to each posterior lateral eye; on each side of this is a very broad band of more scattered reddish hairs; lateral margins of thorax with a band (or series of triangular patches) of white hairs; anterior surface of head clothed with white and reddish hairs intermixed.

Anterior median *eyes* small, about 2 diameters apart, and a little more than a diameter from the posterior median eyes; these eyes large, a little more than twice as wide as an anterior median eye and nearly $1\frac{1}{2}$ diameters apart; lateral eyes on each side subequal and larger than the anterior medians, each posterior lateral eye with a large white bristle overhanging it, the tubercle bearing the anterior laterals long; row formed by the anterior eyes much wider than that formed by the posterior ones.

Abdomen with a large conical process on each side above just before the middle and a smaller median one in front overhanging the thorax; integument covered for the most part with silvery-white hairs; posterior part of dorsal surface with a longitudinal, olivaceous, leaf-like band, which has wavy margins and is covered with reddish and some white hairs; anterior part with a longitudinal, median, olivaceous or black mark, which is dilated on each side behind into a long curved horn (reaching to the apex of the lateral tubercle), and is bordered posteriorly by a transverse ridge clothed with yellow hairs and joining the two tubercles; the median dark mark enclosed anteriorly by a horseshoe-shaped white mark covered with silvery hairs. Sides of abdomen with some olivaceous markings and a wavy line. Ventral surface clothed with ruddy and white hairs intermixed and marked with 4 white lunate spots, these spots densely clothed with silvery hairs and bordered externally by a longitudinal (sometimes indistinct) white line; median line darker. Vulva formed of a simple triangular plate acuminate in front, truncated behind, and slightly transversely dilated within the epigastric fold; a small brown stripe on lateral edge of plate present at each hind angle.

Chelicera with longitudinal bands of pale yellow and olivaceous, spotted with black on the distal half and furnished with 5-6 teeth in

the anterior and 4-6, besides, sometimes, some very minute ones, in the posterior row.

Labium blackened, with white apex. *Sternum* about $\frac{1}{2}$ longer than wide, blackened (or yellowish and spotted with black), the median pale band clothed with white hairs, the lateral parts with reddish hairs.

Legs for the most part olivaceous or blackened, marked and banded with yellow; femora with a narrow yellow band at end of basal two-thirds (sometimes absent); tibia of third leg (and sometimes of first and second legs) in middle and of fourth leg near the base with yellow band; metatarsi of the 2 anterior pairs with 2 yellow bands or spots (sometimes absent or confluent), those of the 2 posterior pairs with a broad band in middle; tarsi pallid, at least at base.

♂ ♂. *Carapace* about $\frac{1}{4}$ as long as the first metatarsus, the median band on the thoracic portion narrower than in the ♀, the anterior median eyes larger, less than 2 diameters apart, and not more than a diameter from the posterior median eyes.

Abdomen more cylindrical, the anterior half of the dorsal surface differently marked, being provided with a large, triangular, longitudinal, yellowish or whitish area, which extends on each side behind to the apex of the dorsal tubercles, and is divided, at least posteriorly, by a dark median stripe without lateral horns; the yellow area bordered on each side by a broad dark band. Under surface of abdomen with broad median dark band bordered on each side by a narrower white stripe, the 4 lunate marks not differentiated.

Legs longer, olivaceous, the metatarsi mostly paler, the tarsi pallid, the 2 posterior pairs of metatarsi with a broad white band in middle, the other bands obsolete.

Pedipalps pallid at base, the distal part of femur and the 3 distal segments infuscated or black, the tibia clavate, the tarsus hemispherical, the palpal organ with a curved and flattened, claw-like (but not cruciform) lobe ascending from the centre of the coiled stylus.

Measurements.—Length of abdomen and carapace, ♀ 7, ♂ $6\frac{3}{4}$ mm.; length of carapace, ♀ $3\frac{1}{3}$, ♂ 3, of first leg (from apex of coxa), ♀ 20, ♂ 32, of fourth leg, ♀ 12, ♂ $14\frac{3}{4}$.

GEN. MIAGRAMMOPES, O. P. Cambr.

MIAGRAMMOPES CONSTRICTUS, n. sp.

1 ad. ♀ (No. 982) from Durban, Natal (*J. P. Gregoe*, October, 1896), resembling *M. brevicauda*, O. P. Cambr. (*P. Z. S.*, 1882, pl. xxxi., fig. 12A), in general shape.

Carapace parallel-sided, evenly rounded in front, its length $1\frac{1}{2}$ times its width in the middle, its surface dark olivaceous-brown, yellowish at the anterior and lateral margins. The 4 principal eyes subequal, forming a slightly recurved row, the medians nearly twice as far from each other as from the lateral eyes and placed just behind the anterior fourth of the carapace, the lateral eyes placed in the centre of a broad low elevation.

Anterior pair of *legs* olivaceous, the sides of the femur and the sides and under surface of the tibia more or less yellowish, the sides of the tarsus and metatarsus reddish-yellow, the hair covering somewhat rubbed off, the short hairs white but the under side of the tibia and the upper and under sides of the metatarsus with a thick mane of longer white-tipped brown hairs; the three posterior pairs of legs pale yellowish, but the inner surface of second pair on the femur, of third pair on patella and distal part of femur and both inner and outer surfaces of patella and distal part of femur of fourth pair dark olivaceous or blackened.

Abdomen cylindrical, constricted near the anterior end, the caudal portion short, as in *brevicauda*; colour whitish or yellowish-white, the dorsal surface with a strong, blackish olivaceous, median band which widens posteriorly and spreads over the caudal portion, and is marked on each side with 3 small, deep black dots; anterior half of abdomen also with a dark dorsal mark on each side and a larger deep black mark in the lower part of the lateral surface; under surface with 2 narrow, dark, parallel, longitudinal lines; caudal portion, especially below, densely covered with fulvous hairs.

Sternum dark along the middle, yellowish laterally in the expanded portion.

Measurements.—Length of trunk (carapace + abdomen) 9 mm., of carapace $2\frac{1}{4}$, of abdomen $6\frac{3}{4}$; width of carapace in middle $1\frac{1}{2}$.

FAMILY DICTYNIDÆ.

GEN. AUXIMUS, E. Sim.

1. AUXIMUS SCHREINERI, n. sp.

Specimens.—(a) 4 ♀♀, 3 ♂♂, and a number of young (Nos. 9460 and 11876) from Hanover, Cape Colony, collected by Mr. S. C. Cronwright Schreiner in 1901.

Closely resembling *A. capensis*, Poc., but with different vulva and with the pattern of yellow spots on the abdomen practically obsolete.

Carapace as long as the metatarsus and $\frac{2}{3}$ — $\frac{3}{4}$ of the tarsus of first

leg in the ♀, and equal to the tibiae but shorter than the metatarsus in the ♂.

Vulva.—Large excavation on the surface longer than broad, its bottom bordered on each side by a curved dark reddish band which terminates posteriorly in a large round black mark (Pl. X., fig. 1).

Tibiae of 2 anterior pairs of legs with 3 pairs of spines below.

First leg in ♂ with the metatarsus a little longer than the tibia, bent slightly but rather suddenly inwards near end of basal $\frac{3}{4}$, and gently and slightly curved along the greater part of its length (the concavity below), and more sharply in the opposite direction at the base (the concavity above).

Length of carapace and abdomen, ♀ ♀ 9–13, ♂ ♂ 9–9½ mm.

(b) 2 ♀ ♀ from Willowmore (*Dr. H. Brauns*, 1903). Legs with fewer spines, the tibia of the first pair with only 2 pairs of spines below (the basal spines being absent), that of second leg with 1–2 basal spines.

2. AUXIMUS SILVATICUS, n. sp.

Specimens.—2 ♀ ♀ and 1 juv. (No. 12797) from the forest at the Knysna (March, 1896, *W. F. P.*).

Resembling *A. capensis*, *Poc.*, in general coloration, &c., but with much longer and slenderer legs and very different vulva.

♀ ♀. *Carapace* a little longer than the metatarsus of first leg; posterior median eyes further apart, being only a trifle nearer to one another than to the laterals.

Vulva a large, strongly convex, shiny plate, bearing a large, longitudinal, median groove anteriorly, and a transverse, blackish, σ -shaped band (in a groove) on each side posteriorly (Pl. X., fig. 2).

Length of carapace and abdomen 14 mm.

3. AUXIMUS LONGIPES, n. sp.

Specimens.—(a) A number of ♀ ♀, ♂ ♂, and young from the Cape Peninsula (mostly found in the moister ravines on the slopes of mountains).

Differs from *A. capensis* and the 2 preceding species in having the sternum very broad and scarcely at all narrowed in front, and in other characters.

Carapace pale ochraceous to reddish-yellow, finely blackened at the edges, generally with a pair of infuscate marks on posterior part of cephalic portion, and occasionally with faint lateral infuscate marks on thoracic portion (often strongly marked in immature

specimens); its length considerably less than that of the first tibia or metatarsus in both sexes.

Abdomen infuscated, with a double series of transverse, whitish or yellowish stripes above extending more or less down the sides, the anterior pairs with a median white stripe running between them; under surface with a white line on each side. *Vulva* consisting of a hairy, yellowish, convex plate, more or less depressed in the middle and marked with a pair of thick infuscate bands, which converge anteriorly or form a Λ , the hind margin of the plate produced in the mesial part into a broad naked tongue, which is sharply grooved on each side of its surface (Pl. X., fig. 3).

Legs very long and slender, a little longer in the σ than in the ♀ , the first metatarsus in the σ longer than the tibia and slightly curving upwards; colour pale ochraceous, frequently with infuscate bands (faint in the adult but strong in immature specimens), the distal segments reddish-yellow to dark reddish.

Pedipalps of σ very different from those of *A. capensis* and *schreineri*; patella short, truncated at right angles at distal end, its height almost equal to its length along upper surface; tibia much shorter than thick, the distal end deeply emarginate in the middle both above and below and above the middle on the inner side, the apical spur at the inner upper margin short and small, not produced beyond the level of the outer distal edge; tarsus large, much longer than the femur and than the patella and tibia together; stylus of palpal organ very long, forming a large C-shaped curve, over which is stretched a white membrane completely covering the under side of the tarsus (the stylus commences at the middle of the inner edge of the tarsus and ends a little behind its origin in a short, claw-like obtuse spur); outer edge of bulb with a short sharp spinous process in the middle (hidden under the tarsus).

Length of carapace and abdomen, ♀ $5\frac{3}{4}$ – $10\frac{1}{2}$, σ $6\frac{1}{2}$ mm.

(b) 1 ♀ from the summit of the Hottentots Holland Mountains at Sir Lowry's Pass, Caledon Div. (*W. F. P.*).

(c) 1 ♀ and 1 σ from Lourensford, Hottentots Holland, Stellenbosch Div. (*H. Hermann*). Pedipalp of σ with the apical spur of tibia stouter and larger than in the types.

GEN. PSEUDAUXIMUS, E. Sim.

PSEUDAUXIMUS PALLIDUS, n. sp.

1 ♀ (No. 9461) from Hanover, Cape Colony (*S. C. Cronwright Schreiner*, October, 1901).

Colour like that of the palest specimens of *P. reticulatus*, Sim.

(Bull. Soc. Ent. Fr., 1902, p. 243), the abdomen being pale greyish, with a pair of infusate lines near median line in front and a row of fainter, more lateral, infusate marks on each side more posteriorly on dorsal surface, the sides and under surface with some scattered infusate dots posteriorly; carapace and legs marked as in *reticulatus*.

Other characters also very similar except:

Tibia and metatarsus of *first leg* each with only 3 pairs of spines below and 1 other spine on the inner surface (the metatarsus sometimes with 3 and the tibia sometimes with only 1 apical spine).

Vulva a simple convex area with a large blackish mark on each side; the hind margin narrowly browned, emarginate in the middle (Pl. X., fig. 4).

Length of carapace and abdomen 6 mm.

FAMILY ERESIDÆ.

GEN. STEGODYPHUS, E. Sim.

1. STEGODYPHUS CANUS, n. sp.

Specimens.—(a) 43 ♀♀ and 9 young (No. 3697) from Naroep, Great Bushmanland, Namaqualand Div. (*Max Schlechter*, March, 1898).

♀♀. *Colour*.—Carapace bright red, pale yellow behind and along the lateral borders, darker red on the lower part of the sides of the cephalic portion, the anterior edge narrowly blackened; whole carapace hoary with a thick coat of white or creamy-white hairs, except the facial portion below the level of the posterior median eyes, which is clothed with a triangular patch of yellowish-brown or golden hairs on each side of the median line, the two patches separated by a vertical wedge-shaped strip of white hairs; anterior edge with a thick fringe of white hairs. Chelicera red, thickly clothed with creamy-white hairs. Legs pale yellowish, the two anterior pairs more reddish, especially distally, all thickly covered with short white or creamy-white hairs, the 4 distal segments with black bands (often absent from the tarsi and metatarsi of the 2 anterior pairs), these bands covered with white or (especially in the fourth leg) with black hairs; fourth femur sometimes with a distal patch of dark hairs on inner and outer sides, and the coxæ and trochanters often with a group of fine black setæ below. Sternum reddish-yellow, with white hairs and a few fine black setæ, and generally marked with an infusate submarginal line on each side. Abdomen pale yellowish, clothed

with short whitish hairs, practically unspotted above, with the exception of the stigmata and 2 clusters of small brown spots at anterior margin; the sides almost without spots or with a number of olivaceous spots; under surface variable, the middle area olivaceous, bordered on each side by a curved white band, and traversed longitudinally by 2 white stripes—or this area pallid, with the olivaceous hairs reduced to a small spot on each side; hairs on pulmonary segment pallid, black only immediately round the vulva.

Carapace as long as the tibia and $\frac{4}{5}$ or more of the metatarsus of first leg. Median eye-area decidedly narrowed in front, but the anterior eyes rather large, not much smaller than the posterior ones and larger than the anterior lateral eyes, which are placed on a large prominent tubercle.

Vulva a hard plate containing a large, deep, posterior cavity, which is bordered in front and at the sides by a high, thick, semi-circular ridge; bottom of cavity containing a pair of lateral ridges converging anteriorly and bordered internally by a curved black groove, the median part occupied by a large brown lobe with a pair of convexities, the lobe separated from the black grooves by a narrow white ridge on each side (Pl. X., fig. 5).

Length of adult ♀♀ 13½–18 mm.

(b) 2 ♀♀ and 1 juv. from Eities, Great Bushmanland, Kenhart Div. (*Max Schlechter*, March, 1898).

2. *STEGODYPHUS TENTORICOLA*, n. sp.

Specimens.—11 ♀♀ and 2 ♂♂ (No. 11836, &c.) from Hanover. A number of other specimens also from Hanover, Vlag Kop (5–6 miles north of Hanover), and Eierfontein (8–9 miles west of Hanover) (*S. C. Cronwright Schreiner*, 1902). Adult ♀♀ in February and March, ♂♂ in February.

♀♀ from Hanover. *Colour*.—Carapace covered with white hairs (the head in one specimen with yellow hairs); the thoracic portion nearly black, broadly reddish-yellow at the sides, the posterior and lateral margins narrowly blackened; the cephalic portion red or reddish-yellow behind, blackened on the sides anteriorly and on the upper part posteriorly, the upper part reddish again anteriorly; the region of the posterior lateral eyes reddish or reddish-yellow (connecting the posterior and anterior reddish patch on both sides) or black (connecting the posterior and anterior lateral black patches on each side); median posterior and anterior reddish patch also connected by a narrow reddish median line dividing the posterior black patch; face black, bisected by a median line of white hairs, usually

entirely covered with white hairs (replaced occasionally by black ones), and bordered on each side by a band of white (rarely yellow) hairs. Chelicera nearly black, covered with white hairs, except quite at apex, where the hairs are black. Sternum pale yellow or reddish-yellow, the sides broadly blackened, the hairs white, with a few black setæ. Legs pale yellowish, the 2 anterior pairs more reddish, all very strongly banded with black, the femora with a broad, intensely black, apical band, and one or two paler ones near the base, tarsi and metatarsi of 2 anterior pairs often darkened, the base of the metatarsi then yellowish or reddish-yellow; all or most of the coxæ and trochanters with black patches; the hairs on the legs white, those on some of the black bands black. Abdomen pale yellow, covered for the most part with yellow or cream-coloured hairs, without spots above, excepting the stigmata and generally also a few tiny black spots or groups of black setæ; the sides with a number of black spots and an inferior black patch (with black hairs); under surface with 2 large roundish or oval yellow marks posterior to the 2 pulmonary spiracles, and separated by a broad median black band, which is cleft anteriorly and clothed with black hairs; epigastric area black in the middle but yellow on the pulmonary opercula, these again often narrowly encircled with black, the hairs (except those immediately round the vulva) white; spinners black.

Carapace longer than patella and tibia and as long as the tibia and $\frac{5}{6}$, or nearly the whole of the metatarsus of first leg. Eyes much as in *S. canus*, n. sp., except that the anterior row of median eyes is wider, being not much narrower than the second row.

Vulva with the edge of the large cavity deeply emarginated in front, the cavity with a median keel and bounded behind by a curved ridge, which is notched in the middle; hind margin of the plate of vulva convexly projecting backwards beyond the hind margin of the epigastric area on each side of it (Pl. X., fig. 6).

♂♂. *Colour*.—*Carapace* much less densely hoary, often with some yellow hairs on each side on thoracic portion and yellowish-brown ones on the face; abdomen clothed above and on the upper part of the sides with rusty-red or brownish hairs, but the middle of the dorsal surface with a large, fusiform median band of pallid hairs; 2 anterior pairs of legs much less intensely banded, the bands being obsolete or almost so on the tibia above.

Carapace with the cephalic portion much higher and more abruptly defined, its length equal to the tibia and $\frac{1}{6}$ – $\frac{1}{5}$ of the metatarsus of first leg.

Legs much longer, especially the anterior pair; tibia of first leg without fringe of long hairs, but the proximal black band clothed

with numerous minute, thick, black setæ (resembling spinules) on the side and below, but not above.

Tibia of *pedipalps* (measured along upper side) distinctly a little shorter than the patella and furnished with an external fringe of white hairs; the tarsus long, a little longer than the femur, clothed with short white hairs and longer black bristles.

Length of ♀♀ 10½–13 mm.; of ♂♂ 8–10 mm.

Habits.—According to Mr. Schreiner this species is never gregarious, for the females live singly, each in her own nest, being, however, sometimes accompanied by the male.

These nests, one of which was sent to me by Mr. Schreiner, are in the form of a hollow elongate cone, or "fool's cap," nearly 5 cm. in length, and formed of a closely woven inner lining, loosely covered externally by pieces of leaves and *débris* of insects. The nests are fixed on bushes.

GEN. ADONEA, E. Sim.

ADONEA VARIEGATA, n. sp.

Specimens.—(a) 2 ♀♀ (Types: No. 3701) from Naroep, Great Bushmanland, Namaqualand Div., Cape Colony (*Max Schlechter*, March, 1898).

Colour.—Carapace and abdomen densely mottled with white and olivaceous hairs, the sides of abdomen with olivaceous spots, the dorsal stigmata each in the centre of a rather large white spot; posterior pairs of legs reddish-yellow, the anterior pairs darker, especially distally, all clothed with white and olivaceous hairs.

Carapace with the cephalic portion rather high (about the same height above the fovea as in *Eresus fumosus*, C. L. Koch), depressed, convex above and strongly sloping behind, its width much less than that of the thorax, and less than the length of the patella and tibia of first leg and than the distance from the fovea to the hind margins of the posterior median eyes. Posterior median eyes about 3 times as long as the anterior medians, and separated from the anterior margin by about their own diameter or less, from one another by about 1½ times this distance, and from the anterior lateral eyes by less than 3 diameters; width of posterior row of eyes about equal to the length of the oblique row formed by a posterior lateral eye and a posterior median eye of the opposite side.

Vulva a semicircular plate containing a large, deep, semicircular emargination, the bottom of which is occupied by a shallow sub-quadrangle pan (Pl. X., fig. 7).

Under surface of tarsi and metatarsi and the apex of the tibiæ of

3 posterior pairs of *legs* spined, and also the tarsus and apex of metatarsus of first pair.

Length of carapace and abdomen 14–18 mm.

(b) 1 ♂ from Namies, Great Bushmanland, Kenhart Div. (*Max Schlechter*, March, 1898).

Carapace nearly black, but the upper part of the head dark reddish, the hair covering dark olivaceous, but the lateral margins of the thorax with a broad band of snow-white hairs; cephalic portion of carapace very much more suddenly and strongly elevated and more convex above than in the ♀, the hind surface rising almost perpendicularly from the fovea (but not overhanging it), the width exceeding that of the thoracic portion, about equal to the distance from the hind margin of head to the posterior median eyes, and almost equal to the length of the tibia and half the metatarsus of first leg. Posterior median eyes slightly smaller than in the ♀.

Abdomen covered with black hairs below and with creamy-white ones above, and furnished with a broad, fusiform, black mark occupying the space between the two rows of dorsal sagilla.

Legs longer and slenderer than in ♀, especially the 2 distal segments, the femur of first pair stouter than the others; reddish to almost black, with olivaceous hairs, but the dorsal surface of the patellæ, of the tibiæ, and, to a lesser extent, of the metatarsi clothed with white hairs, femora with an apical fringe of white hairs.

Pedipalps clothed with dark olivaceous hairs, the tarsus and palpal organ small.

Length of carapace and abdomen $10\frac{1}{2}$ mm.

(c) 1 ♀ from Kykgat, Great Bushmanland, Namaqualand Div. (*Max Schlechter*, March, 1898).

(d) 2 ♀ ♀ from the Bokkeveld Mountains about Nieuwoudtville, Calvinia Div. (*M. Schlechter*, August, 1897; *C. L. Leipoldt*, September, 1898). Width of head in these specimens less than or greater than the length of the first patella and tibia.

(e) 3 ♀ ♀ and 1 juv. from Touws River, Worcester Div. (*R. M. Lightfoot* and *W. F. P.*, August, 1903). Length of ♀ ♀ $9\frac{3}{4}$ –15 mm.

(f) 1 ♀ from Matjesfontein, Worcester Div. (*W. F. P.*, August, 1903).

The nests of this species are constructed under stones.

GEN. SEOTHYRA, Purc.

SEOTHYRA FASCIATA, n. sp.

1 ♀ (No. 12772) from the South-West Kalahari (*Dr. Eric Nobbs*, August, 1903). The nests of this species were seen in large numbers

along a considerable tract in Gordonia to the North-West of Uppington, between this town and the Molopo River.

Very like *S. schreineri*, Purc. (Ann. S. Afr. Mus., vol. iii., p. 32, 1903), but larger, and differing besides in the following respects:—

Colour of anterior legs more reddish-yellow, the distal segments red; carapace reddish-yellow, the head orange-red; abdomen with a row of transverse black patches on each side above, producing a transversely banded appearance, the short hairs between the bands yellowish.

Vulva with the anterior cavity very large, wider than the posterior portion of the median area, the median area transversely grooved both before and behind the constricted part, which is longitudinally grooved (Pl. X., fig. 8).

First *leg* apparently unspined, the tibia without a fringe of longer hairs on inner side, tibiae II. and III. with a couple of apical spines below, IV. unspined.

Length of carapace and abdomen $8\frac{1}{2}$ mm.

Nests.—The webs of two nests which were sent to me by Dr. Nobbs show that the nests of this species are constructed on the same plan as those of *S. schreineri*, Purc. (already described and figured, *loc. cit.*, pl. i., figs. 5–7), but on a much larger scale. A well-developed side-chamber is present, but it was not possible to distinguish the tongue-shaped flap at the entrance to the hole in the specimens at my disposal. The lobes of the lid are very much longer and narrower than those of *S. schreineri*, and according to Dr. Nobbs the sand is removed from the edge at the end of each lobe for a short distance to form a semicircular groove thus (○), while between these 4 grooves the edges are not distinguishable. It is evident that in this species the spider crawls out from under the lid at the ends of the lobes only, and not all round the edges, as is the case in *S. schreineri*.

The nests were always found in the loose red sand of the desert.

GEN. DRESSERUS, E. Sim.

1. DRESSERUS ANGUSTICEPS, n. sp.

2 ♀ ♀ (No. 11693) from Stompneus, St. Helena Bay, Malmesbury Div., collected by Mr. J. E. C. Goold in May and June, 1902.

Allied to *D. collinus*, Pocock (Ann. Mag. N. H., ser. 7, vol. vi., p. 323, 1900); from the Cape Peninsula, but differing in the following respects:—

Abdomen speckled with spots of white hairs above and lines of

white hairs at the sides, the dorsal stigmata also ringed with white, as in *Eresus fumosus*, Koch.

Carapace with the cephalic portion narrow and not so high as in *collinus*, the width of the head being equal to the tibia, metatarsus, and about $\frac{1}{5}$ – $\frac{1}{6}$ of the tarsus of first leg, equal to or slightly shorter than the distance from the fovea to a line joining the hind margins of the posterior median eyes, but slightly less than the width of the thorax.

Eyes much as in *collinus*, the posterior medians perhaps a trifle smaller.

Vulva is in Pl. X., fig. 9, the posterior median portion rectangular, truncated, with a small cavity at each hind angle.

Legs short, the length of the carapace * being equal to the patella, tibia, metatarsus, and $\frac{1}{2}$ – $\frac{3}{4}$ of the tarsus of first leg.

Length of carapace and abdomen 11 mm.

2. *DRESSERUS LATICEPS*, n. sp.

1 ♀ (No. 12831) from Tsabis, 20 miles N.E. of Concordia, Namaqualand Div., Cape Colony (*J. H. C. Krapohl*, 1902).

Carapace as long as the patella, tibia, metatarsus, and about $\frac{1}{6}$ of the tarsus of first leg, the cephalic portion reddish-black, very high and broad, flattened above, rising abruptly behind far above the height of the fovea, its width equal to the patella, tibia, and at least $\frac{1}{2}$ the metatarsus, and to the tibia, metatarsus, and $\frac{2}{3}$ of the tarsus of first leg, and considerably exceeding the distance from the fovea to the anterior margin of the ocular tubercle.

Posterior median *eyes* moderately large, about $1\frac{1}{2}$ diameters apart, their distance from the anterior laterals equal to 3 diameters at least.

Abdomen pale yellowish, covered with olive-brown hairs. *Vulva* as in Pl. X., fig. 10, the lateral emarginations rather shallow.

Length of carapace and abdomen 15 mm.

FAMILY SICARIIDÆ.

GEN. LOXOSCELES, Lowe.

LOXOSCELES SPINULOSA, n. sp.

1 ♀ (No. 7915) from the Pass at Avontuur, near Stormsvlei, Swellendam Div. (*W. F. P.*, August, 1900).

* Length of carapace is measured between 2 parallel lines touching the anterior and posterior margins and includes the ocular tubercle.

Colour of carapace and limbs rufescent; abdomen very pale yellowish, covered with numerous reddish, setigerous granules.

Carapace broad, with very large longitudinal fovea; its length $\frac{1}{2}$ that of first metatarsus; its surface clothed with long curved spines and smaller hairs and setæ, those on the thoracic region arranged in 6 radiating bands and a circumferential row at the extreme margin, the interspaces almost naked. Eyes rather large, the laterals not quite contiguous and rather far forward, a line touching the anterior edges of the anterior pair, passing only just behind the centres of the median eyes (when viewed from above); distance between a lateral and a median eye less than the width of a median eye.

Abdomen clothed with numerous fine hairs and setæ, the dorsal surface also with a number of curved spines, which are strongest anteriorly and become much slenderer posteriorly.

Legs very long and slender, bearing the scars of numerous spiniform setæ (mostly rubbed off); fourth leg longer than first.

Sternum with numerous long, curved spines and setæ.

Length 6 mm.; length of first leg (to base of femur) 18 mm.

GEN. SCYTODES, Latr.

1. SCYTODES MONTANA, n. sp.

Specimens.—(a) 1 ♀ (No. 12248) and several young from the top of Kalk Bay Mountain, Cape Peninsula (*W. F. P.*, February, 1902).

♀. *Colour* pale yellow. Carapace with five black stripes in middle part above, the median stripe narrow, running from anterior margin backwards and ending just in front of the highest point of the carapace; the black stripes next to the median one about twice as wide as the latter, almost parallel (only slightly converging posteriorly), extending from between the lateral eyes to the highest part of the carapace, and suddenly curving outwards at each end to unite with the outer stripes; these latter about twice as broad as those next to them, and extending from the anterior lateral angles of the clypeus over the lateral eyes to a little distance behind the highest part of the carapace; from the lateral eyes to the highest part these stripes bulge gently outwards, thus (), but behind this they diverge very slightly for a short distance and are truncated at the hind end; the 4 yellow stripes between the black ones narrow, equalling the median stripe in width. Sides of the carapace traversed by a narrow, horizontal black stripe, above which are 2 wavy stripes (or series of short stripes), transected by fine vertical lines and enclosing a row of 4 small yellow areas on each side; below the lowest encircling

stripe are a couple of short black stripes on each side. Abdomen spotted on anterior half and below, encircled in the middle by a transverse band (open below), behind which are a pair of dorsal dots and of lateral stripes, the posterior surface with a pair of vertical stripes; genital operculum blackened on each side. Sternum infuscated, with a row of 3 yellow spots on each side, an anterior and posterior yellow area and a median yellow stripe. Femora of legs faintly infuscated, not banded with black, the tips pale yellow; patellæ deeply infuscated; tibiæ like the femora but deeply infuscated at the tips; metatarsi and tarsi pale yellow.

Under side of *abdomen* with a pair of fine, not very distinct, brown ridges (visible when viewed from behind), which commence behind the lateral angles of the genital opening, strongly converge posteriorly, and are inturned at the hind ends and form the outer and posterior borders of a pair of oval light brownish areas (Pl. X., fig. 11).

Length of trunk (carapace and abdomen) $4\frac{1}{2}$ mm.

(b) 1 ♀ from the southern slopes of Table Mountain (*W. F. P.*, September, 1901), with much more black on the abdomen and on the sides of the carapace; the black stripe on each side of the median one united with the outer band by a transverse black bar at the anterior end of the (-) shaped portion.

(c) 1 ♀ from Houw Hoek, Caledon Div. (*W. F. P.*), with the tibia of fourth leg marked with 3 distinct black bands; the black stripe on each side of the median one on the carapace fused in its middle portion for a considerable distance with the outer band.

2. *SCYTODES LYCOSELLA*, n. sp.

1 ♀ (No. 8373) from Rietvlei, Umvoti District, Natal (*Harold A. Fry*, 1899).

Colour pale yellow. Carapace with only 3 black stripes above; the median one abbreviated behind, reaching only to the middle of the carapace; the outer stripes very broad, nearly meeting posteriorly, each containing an oval yellow spot just before the middle of the carapace; the median yellow area just behind the median black stripe broad and spindle-shaped; sides of the carapace with black reticulation and several tiers of yellow areas. Sternum with 4 7-shaped marginal black marks on each side and 2 rows of dots in middle. Abdomen with numerous black markings. Legs very strongly banded, the femora with 3 strong black bands, the anterior pair also spotted with black near apex; patellæ black, paler above; tibiæ banded with black at base and apex and in the 2 posterior pairs

in the middle also, the 2 anterior pairs thickly spotted all over, the posterior pairs with a few spots only; metatarsi speckled with black, darkened at apex.

Brown horny plates on under sides of *abdomen* rounded, transversely oval, somewhat resembling those of *montana*, except that they are more distinctly bordered all round by a fine brown line and are further apart (Pl. X., fig. 12).

Length of trunk 5 mm.

3. SCYTODES TRIANGULIFERA, n. sp.

Specimens.—(a) 2 ♀♀ (No. 3917) from Prince Albert Village (W. F. P., September, 1896).

Colour yellow. Carapace with a pair of very broad black bands above, resembling the outer bands of *S. montana*, but each provided in the broadest part at some distance behind the lateral eyes with a cuneate, oblique yellow spot or stripe, and with a smaller yellow spot at hind end; the median stripe reduced to a very short fine line between the lateral eyes and also in front of the median eyes; the median yellow band broad, but not so broad as the black bands; sides of the carapace with 2 stripes only, both, especially the upper one, strongly and angularly zigzag, and enclosing a series of yellow spaces on each side. Abdomen transversely striped, with 2 or 4 large spots above posteriorly. Sternum with 3-4 black spots on each side, the margins sometimes blackened. Femora of legs infuscated, with a paler band near the apex; the patellæ pale yellow above; the tibiæ pale, with dark band at base and apex and in the posterior pair in the middle also; metatarsi and tarsi yellowish.

Horny plates on under side of *abdomen* bearing each a very strong, well-marked, nearly straight, dark ridge running near outer margin of the plate from just behind the lateral angles of the genital opening and only slightly converging posteriorly, the edges of the ridges finely wavy, their hind ends far apart but slightly nearer together than the outer angles of the genital opening (Pl. X., fig. 13).

Length of trunk 8 mm.

(b) 1 ♀ from Willowmore (Dr. H. Brauns, 1904), with the abdomen banded at the sides only.

4. SCYTODES LEIPOLDTI, n. sp.

2 ♀♀ (No. 3569) from Clanwilliam (C. L. Leipoldt, October, 1897).

Colour pale yellowish. Carapace with 4 black stripes above, the median stripe being entirely absent posteriorly to the median eyes,

and represented by a short stripe before these eyes; the inner stripes narrow, free and converging posteriorly, united a little in front of their middle by a thick transverse patch with the outer stripes and again at their anterior ends; the outer stripes not very thick; sides of the carapace with a black reticulation with large meshes. Abdomen with transverse rows of spots above and at the sides, the median line in front with 1-2 black marks. Femora of legs with 2 distal black bands, the more proximal band less distinct in the anterior pairs, which are also spotted at the sides; patellæ blackened at apex (except above); tibiæ with 3 black bands; metatarsi mostly darkened at apex. Sternum with 4 curved black marks on each lateral margin.

Horny plates on under side of *abdomen* very like those of *S. triangulifera*, n. sp., but the ridges slightly further apart and slightly more curved, thus (), rarely nearly straight.

Length of trunk 6 mm.

5. SCYTODES FLAGELLATA, n. sp.

6 ♀♀ and 2 ♂♂ (No. 8322) from Houw Hoek, Caledon Div. (*W. F. P.*, August, 1900).

Colour pale yellowish. Carapace with the mesial yellow stripe strongly dilated (often lozenge-shaped) in the middle of the dorsal surface, and strongly constricted (sometimes even interrupted) posteriorly by the strongly approximated outer black bands; the median black stripe very narrow, reaching highest part of upper surface, and sometimes obliterated in the middle, the outer black stripes very broad, with jagged outer and concave inner margins, and containing several small yellow dots; lateral surface of carapace with black reticulation showing several tiers of yellow spaces. Sternum spotted, with 4 transverse black marks on each side, or the sides broadly blackened and each with a row of 3-4 yellow spots. Abdomen with transverse bands of black and speckled all over. Femora of legs numerous spotted and furnished with a distal black band, and generally also a more mesial one and a basal one; patellæ black distally; tibiæ with 3 dark rings, the mesial one fainter in the anterior pairs.

Horny plates on under side of *abdomen* with a pair of outcurved ridges remote from each other, the hind ends of the ridges out-turned and a little nearer together than the front ends* (*Pl. X.*, fig. 14).

* The distance between the ridges varies somewhat in different specimens, being relatively closer together in less distended abdomens. The same applies to the other species.

Process of *palpal organ* in ♂ in this and the following forms consisting of a thicker proximal and a slenderer distal portion. The proximal portion in this species slightly thickened at apex and considerably shorter than the very long, slender, lightly curved, distal portion; the length of the whole process much exceeding the entire length of the tarsus (Pl. X., fig. 15).

Length of trunk in ♀ $6\frac{1}{2}$ mm., ♂ 5.

6. *SCYTODES ARENACEA*, n. sp.

1 ♀ (No. 5363) from Beenbreek, near the Orange River, Kenhart Div., Great Bushmanland (*Max Schlechter*, August, 1899).

Colour very pale yellowish. Carapace with 3 black stripes above passing through the 3 groups of eyes, the median stripe narrow, reaching highest part of carapace, the outer stripes also narrow, only about twice as broad as the median stripe and remote from it; between the 3 stripes just behind the line of lateral eyes are 2 short fainter patches, representing the inner pair of lines; sides of carapace with a row of oval black rings (or 2 wavy lines), and above them a couple of infuscate spots. Sternum without markings. Femora of anterior legs with narrow distal band and a few spots of black; patellæ blackened at apex on each side; tibiæ blackened at apex and middle and in some at the base, but the third pair scarcely blackened at all; metatarsi slightly darkened at apex; abdomen with some small black dots above.

Horny ridges on under side of *abdomen* similar to those of *S. flagel lata*, n. sp., but shorter.

Length of trunk $4\frac{1}{8}$ mm.

7. *SCYTODES TESTUDO*, n. sp.

Specimens.—(a) 3 ♀ ♀ and 1 ♂ (No. 12079) from Lion's Hill, Cape Peninsula.

Colour pale yellow. Carapace with 5 black stripes down back, corresponding to those of *S. montana*, n. sp., the median stripe very narrow and generally more or less obliterated in its middle part but distinct posteriorly and for some distance before and behind the median eyes; the black stripe on each side of the median one also narrow, inturned at the free posterior end but united by a thick transverse black patch with the outer stripe at the anterior end of the very thick ()-shaped part of the latter; sides of the carapace divided by the black reticulation into several tiers of yellow areas. Abdomen spotted and banded. Sternum with 4 7-shaped marks

on each lateral margin, and 6 dots in 2 rows down the middle. Femora of legs yellow, with 2 black rings in distal part, the proximal part with numerous black dots in rows; patellæ black distally, yellow at base; tibiæ yellow, with 3 well-marked black rings; metatarsi and tarsi yellow, the former often darkened at apex.

Horny plates on under side of *abdomen* with a pair of strongly curved (-shaped brown ridges, closer together than in *S. flagellata*, the anterior ends of the ridges diverging further apart than the posterior ends (Pl. X., fig. 16).

♂. *Palpal organ* about as long as the tarsus, the proximal portion of the process cylindrical, the slender distal portion very short and bearing at its base a small rounded laminate lobe, the length of the whole process less than that of the tarsus (Pl. X., fig. 17).

(b) Many other ♀♀ and ♂♂ from all parts of the Cape Peninsula. Some specimens have much more black than the types, the sternum being then thickly spotted and the abdomen almost entirely infuscated. Femora sometimes with a black band in front or behind at base. Length of ♀ up to 6½ mm.

(c) 1 ♂ and 2 ♀♀ from Stellenbosch (*L. Péringuey*).

(d) 1 ♂ and 1 ♀ from Lourensford, Hottentots Holland, Stellenbosch Div. (*H. Hermann*).

(e) 3 ♂♂ and 1 ♀ from Brandvlei, Worcester Div. (*W. F. P.*).

(f) 1 ♀ from Rabiesberg, near Nuy Station, Worcester Div. (*W. F. P.*).

(g) 1 ♀ from Houw Hoek, Caledon Div. (*W. F. P.*).

(h) 1 ♀ from Caledon (*Mrs. W. F. Purcell*).

(i) 1 ♂ and several ♀♀ from French Hoek (*W. F. P.*), with the femora strongly banded at the base.

Karoo variety.—In the following specimens the more proximal of the 2 distal black bands of the femur is absent in the first pair of legs and frequently also in the other pairs:—

(j) 3 ♂♂ and 9 ♀♀ from Kogmans Kloof (captured by my wife and myself).

(k) 2 ♂♂ and 7 ♀♀ from Avontuur and Stormsvlei, Swellendam Div. (*W. F. P.*), with the femora sometimes almost entirely blackened in the proximal two-thirds.

(l) 1 ♀ from River Zonder Einde, Caledon Div. (*W. F. P.*).

8. *SCYTODES GOOLDI*, n. sp.

Specimens.—(a) 1 ♀ (No. 12839) and 1 ♂ (No. 11675) from Stompneus, St. Helena Bay, Malmesbury Div. (*J. E. C. Goold*).

Allied to *S. testudo*, n. sp., but more heavily blackened. Carapace

with 3 black stripes above, the median stripe narrow but well developed, of equal width throughout behind the eyes and bordered on each side by a still narrower, straight, yellow line; the extremely broad, outer black bands with 2 pairs of yellow spots (one pair behind the lateral eyes and the other at the middle of the carapace). Sides of carapace as in *S. testudo*. Sternum black, with a median yellow patch and a row of yellow spots on each side in the ♀, but more like that of *S. testudo* in the ♂. Legs heavily banded with black and yellow, the femora with 3 black and 3 yellow bands but not spotted at the base, which is black, the apex being yellow; patellæ black; tibiæ with 3 black bands; metatarsi with 3, mostly faint, infuscated rings; tarsi pale yellow. Abdomen thickly covered with black markings.

Horny plates on under side of *abdomen* triangular, their inner angles provided with a pair of angular ><-shaped ridges (Pl. X., fig. 18).

Palpal organ of ♂ very like that of *S. testudo*, but the distal laminate lobe very thin and transparent, only seen with difficulty. Length of whole palpal organ a little exceeding that of the tarsus.

Length of trunk in ♀ 5 mm.

(b) 1 ♂ from the mountain-side at St. James, Cape Peninsula (W. F. P.).

9. SCYTODES SUBULATA, n. sp.

3 ♀ ♀ and 2 ♂ ♂ (No. 12838, &c.) from Stompneus, St. Helena Bay, Malmesbury Div. (*J. E. C. Goold*).

Allied to *S. testudo*, n. sp.

Colour pale yellowish, the markings closely resembling those of *S. leipoldti*, n. sp., except that on the carapace the posterior half of each inner stripe is separated off from the anterior half (which often ends free) just behind the transverse bridge which joins the outer and inner stripes, while the femora of the legs are not spotted but provided with a very distinct basal, mesial, and distal black band. The inner stripes on the carapace are situated close to the outer stripes.

Horny plates on under side of *abdomen* resembling those of *S. testudo*, but with the ridges often somewhat more angularly bent.

Palpal organ of ♂ resembling that of *S. flagellata*, n. sp., but the slender distal portion shorter, equalling the subcylindrical proximal portion in length, the length of the whole process subequal to the length of the tarsus; the anterior keel at base of distal portion very slender and transparent, scarcely visible.

Length of trunk in ♀ $5\frac{3}{4}$ mm.

10. *SCYTODES LYRIFORMIS*, n. sp.

5 ♀ ♀ and 1 ♂ (No. 11816) from Hanover (*S. C. Cronwright Schreiner*, 1901).

Colour pale yellowish. Carapace with 5 black stripes above, but the median stripe short, continued only a little distance behind the median eyes; the inner of the paired strips narrow, subparallel, somewhat remote from the outer stripes and connected before their middle with the latter by a transverse bridge, and often again at the outcurved anterior ends, the posterior ends converging and free; outer stripes not very broad; sides of the carapace with a row of 4 black-bordered yellow areas on each side and with black marks above and below these. Abdomen pale yellow, with transverse black stripes and rows of spots. Sternum with 4 curved, marginal black stripes on each side and 3 pairs of black spots near the centre. Femora of legs striped longitudinally with rows of spots and black lines (sometimes absent in fourth pair), the distal part with 2 black bands; patellæ blackened at apex (except above); tibiæ with black mesial and distal bands, the anterior pairs also with a basal band; metatarsi darkened at apex.

Horny plates on under side of *abdomen* with the ridges curved as in *S. testudo* and *S. flagellata*, n. spp., their distance apart being less than in the latter but somewhat greater than in the former species.

Palpal organ of ♂ resembling that of *S. subulata*, n. sp.

Length of trunk in ♀ 6 mm.

This species scarcely differs in structure from *S. subulata*, n. sp., and may perhaps be merely a colour variety.

11. *SCYTODES KARROOICA*, n. sp.

3 ♀ ♀ (No. 12872) from Matjesfontein, Worcester Div. (*W. F. P.* August, 1903).

Very like *S. lyriformis*, but larger in size, and with the horny ridges on the under side of the abdomen nearer together and longer (*Pl. X.*, fig. 19).

Length of trunk $6\frac{1}{2}$ –7 mm.

12. *SCYTODES SILVATICA*, n. sp.

Specimens.—(a) 2 ♀ ♀ and 1 ♂ (Types: No. 855) from the Knysna Forest (*W. F. P.*, March, 1896). Also 2 other ♀ ♀ with cocoons from the same locality.

Colour a deep brown or purplish-black, mottled with yellow. Carapace with well-developed median stripe lying between a pair

of broader yellow stripes, on each side of which is a very broad, curved, black band, the latter bearing a small yellow spot just before the middle of the carapace; sides of carapace broadly blackened inferiorly, with a row of 4 yellow spots on each side and a row of larger or smaller, more irregular yellow marks above these; posterior part of carapace with median yellow spot. Abdomen with transverse yellow stripes, the under side often yellow. Sternum usually with 3 paler, transverse, marginal marks on each side. Femora of posterior legs with 2 distal yellow bands; patellæ yellowish at base; tibiæ of posterior legs generally with 2 yellowish bands; metatarsi variable, the posterior pairs being generally pale yellowish and the anterior pairs infuscated and with or without 2 yellow bands.

Horny plates on under side of *abdomen* of ♀ and the *palpal organs* of ♂ much as in *S. lyriformis*, n. sp.

Total length of trunk in ♀ 6½ mm.

In the 2 ♀ ♀ with cocoons almost the whole animal, with the exception of the 2 distal leg-segments and the 2 submedian yellow stripes, is dark brown.

(b) 3 ♀ ♀ from Port Elizabeth (*J. L. Drège, J. P. Cregoe*) in which the legs are without yellow bands and are paler and more yellowish from the tibia on; the tibiæ generally infuscated at base and apex.

13. *SCYTODES CAFFRA*, n. sp.

1 ♀ (No. 9933) from Zululand (*W. Anderson*).

Colour.—Carapace black, the anterior two-thirds with a median yellow stripe containing a narrow, median black line which almost reaches to middle of carapace; posterior surface of carapace with median yellow patch; sides with 4 tiers of rather small yellow spots. Abdomen transversely striped with black and yellow. Sternum black, with a posterior, an anterior, and 3 pairs of lateral yellow spots. Femora of legs infuscated, yellowish at the base above and, in the posterior pairs, also behind; patellæ yellowish above; tibiæ yellowish, but infuscated at base and apex; metatarsi yellowish, darkened at the base.

Horny plates on under side of *abdomen* with a pair of strong curved ridges. (In the type one ridge is more angularly bent than the other.) (Pl. X., fig. 20.)

Length of trunk 9½ mm.

14. *SCYTODES CEDRI*, n. sp.

1 ♀ (No. 4255) from Keurbosch Kraal River, Cedarberg Range, Clanwilliam Div. (*R. M. Lightfoot*, August, 1898).

Colour.—Carapace with the well-developed, median black stripe reaching to highest part of dorsal surface and lying between 2 still narrower, parallel yellow stripes, which extend from behind the median eyes to the hind margin and unite to a single stripe behind the median black stripe; on each side of the yellow stripe is a very broad black band with practically straight inner and strongly sinuous outer margins, and containing a longitudinal yellow spot in the middle; sides of the carapace with a network of thick black lines enclosing several tiers of yellow markings and uniting above with the broad black bands. Abdomen pale yellowish, apparently hardly spotted at all. Sternum yellow, with some dots and lateral marginal lines. Legs infuscated, the distal segments paler, the tibiæ darkened at base and apex, and the posterior ones with mesial band as well.

Horny plates on under side of *abdomen* with a pair of longitudinal ridges, which almost touch the median line and then suddenly bend outwards almost at right angles in front (Pl. X., fig. 21).

Length of trunk 5 mm.

15. SCYTODES LANCEOLATA, n. sp.

2 ♂♂ (No. 9471) from Hanover (*S. C. Cronwright Schreiner*, 1901).

Colour pale yellowish. Carapace with 3 black stripes above, the median yellow stripe rather broad, the median black stripe very fine posteriorly and not reaching behind the middle of the carapace, the outer black stripes broad, each with a longitudinal series of 3 or 4 yellow spots or stripes; sides of carapace reticulated with black, showing several tiers of yellow spaces. Abdomen with transverse black bands and rows of spots, the under side black-spotted. Sternum with 4 pairs of marginal black lines and 2 central rows of dots. Femora of legs with black bar at apex, the anterior surface, at least in the anterior pairs, also sprinkled with black; tibiæ sparsely sprinkled with black, the apex with a black band; patellæ blackened below.

Palpal organ about as long as the tarsus; the process compressed and lanceolate distally, the short apical part subulate, with sigmoid curvature and with slender keel in front (Pl. X., fig. 22).

Length of trunk $4\frac{3}{4}$ mm.

16. SCYTODES ELIZABETHÆ, n. sp.

2 ♂♂ (No. 5665) from Port Elizabeth (*J. L. Drège*, November 1899).

Colour pale yellowish. Carapace with 3 black dorsal stripes, the

yellow lines separating them narrow, straight, and parallel, passing anteriorly round the median eye-tubercle, the median stripe well developed, reaching highest part of dorsal surface, the lateral stripes broad and provided each with 2 more or less distinct yellowish spots near the middle; sides of carapace with a series of black-bordered spaces in 1 or 2 tiers. Sternum with 4 marginal infuscate marks on each side and a few more central dots. Abdomen with transverse black bands and rows of spots. Femora of legs infuscate at apex and sometimes faintly so nearer the middle, the anterior pair faintly infuscate along anterior and posterior surfaces; patellæ infuscate, pallid above; tibiæ darkened at apex and often also at base.

Palpal organ a little longer than the tarsus, which is about equal to the process in length; the process broadened distally, with a strong brownish keel on inner side, the short apical portion with very strong sigmoid curvature (Pl. X., fig. 23).

Length of trunk 5 mm.

Synopsis of the South African species described above* :—

♀ ♀.

- a. Horny plates behind vulva on under side of abdomen with a pair of rectangularly bent ridges, which almost touch in the median line (fig. 21). Clanwilliam Div.
S. cedri, n. sp.
- b. Horny plates not almost touching in the median line.
 - a¹. Horny plates on under side of abdomen with the ridges straight or incurved or circular.
 - a². Horny plates with a pair of very strong \ /- or ()-shaped ridges.
 - a³. Carapace with a single, very broad black band on each side of the median yellow stripe above. Prince Albert, Willowmore.
S. triangulifera, n. sp.
 - b³. Carapace with 2 much narrower, curved black stripes on each side of the median yellow stripe. Clanwilliam *S. leipoldti*, n. sp.
 - b². Horny plates oval, bordered by very weak ridges.
 - a⁴. Femora of legs not banded. Cape and Caledon Divs.
S. montana, n. sp.
 - b⁴. Femora of legs strongly banded with black and yellow. Umvoti Distr. (Natal) *S. lycosella*, n. sp.
 - b¹. Horny plates with a pair of well-marked, outcurved ridges, thus) (.
 - a⁵. Femora of legs (at least some of them) more or less speckled with black, the dots generally forming rows.
 - a⁶. Horny ridges on under side of abdomen far apart (fig. 14).
 - a⁷. Femora yellow, with only a few dots and a feeble distal black band. Great Bushmanland *S. arenacea*, n. sp.
 - b⁷. Femora thickly spotted and provided with strong distal black band. Caledon Div. *S. flagellata*, n. sp.
 - b⁶. Horny ridges nearer together (figs. 16 and 19).

* The only other South African species which have been described are *S. broomi* from Namaqualand and *S. marshalli* from Estcourt (Pocock, Ann. Mag. N. H., ser. 7, vol. x., pp. 321-323, 1902). Both are unknown to me.

- a*⁸. Median black stripe on carapace reaching to highest part of upper surface, although sometimes interrupted in the middle. Cape, Stellenbosch, Paarl, Caledon, Worcester, Robertson, and Swellendam Divs. *S. testudo*, n. sp.
- b*⁸. Median black stripe strongly abbreviated behind, ending before the middle of the carapace.
- a*⁹. Larger. Horny ridges on under side of abdomen nearer together (fig. 19). Matjesfontein *S. karrooica*, n. sp.
- b*⁹. Smaller. Horny ridges further apart. Hanover. *S. lyriformis*, n. sp.
- b*⁵. Femora not speckled.
- a*¹⁰. Femora of anterior legs strongly banded with black and yellow.
- a*¹¹. Black median stripe on carapace well developed, reaching to highest part of dorsal surface. Cape and Malmesbury Divs. *S. gooldi*, n. sp.
- b*¹¹. Black median stripe obsolete posteriorly to the median eyes. Malmesbury *S. subulata*, n. sp.
- b*¹⁰. Femora of anterior legs infuscated.
- a*¹². Length about 9½ mm. Zululand *S. caffra*, n. sp.
- b*¹². Length about 6½ mm. Knysna and Port Elizabeth. *S. sylvatica*, n. sp.

♂♂.

- a*. Distal portion of process of palpal organ filiform, very long and slender, much longer than the slightly clavate proximal portion. Caledon. *S. flagellata*, n. sp.
- b*. Distal portion of process not or scarcely longer than the proximal portion.
- a*¹. Slender distal portion of process of palpal organ subulate, about as long as the subcylindrical proximal portion.
- a*². Femora yellow, banded with black but not speckled. Malmesbury. *S. subulata*, n. sp.
- b*². Femur yellow, speckled at base, banded distally. Hanover. *S. lyriformis*, n. sp.
- c*². Femora infuscated. Knysna *S. sylvatica*, n. sp.
- b*¹. Slender distal portion of process much shorter than the thicker proximal portion.
- a*³. Process of palpal organ straight, the proximal portion not thickened distally.
- a*⁴. Process of palpal organ with a small but conspicuous keel in front at base of distal portion. Femora speckled. Cape, Stellenbosch, Worcester, Paarl, Robertson, Swellendam *S. testudo*, n. sp.
- b*⁴. Process with the anterior distal keel very slender and scarcely distinguishable. Femora not speckled. Cape and Malmesbury. *S. gooldi*, n. sp.
- b*³. Process of palpal organ not straight.
- a*⁵. Distal portion of process lightly sinuous (fig. 22). Hanover. *S. lanceolata*, n. sp.
- b*⁵. Distal portion very strongly sinuous (fig. 23). Port Elizabeth. *S. elizabethæ*, n. sp.

GEN. DRYMUSA, E. Sim.

1. DRYMUSA SILVICOLA, n. sp.

Specimens.—2 ♀♀, 1 ♂, and 3 juv. (No. 871) from the forest at Knysna (*W. F. P.*, March, 1896).

♀ ♀. *Colour* of carapace and limbs reddish-brown, the ends of the legs pale yellowish, the upper side of the patellæ, the apex and base of the tibiæ and the base of the metatarsi also more or less yellowish; carapace with 2 black marks at middle above, which converge posteriorly and emit from each side 3 wavy, black, radiating lines, and from the front 6 subparallel lines, the latter anastomosing anteriorly on the head.

Anterior median *eyes* a little larger than the laterals and situated slightly in front of the line joining the anterior margins of the anterior lateral eyes. Clypeus a little exceeding twice the length of a median eye.

Abdomen narrow oblong, shortly acuminate at apex. Epigastric area very long, entirely covered below by a very large, brown, smooth, semicylindrical, somewhat fiddle-shaped plate extending from anterior end to middle of under surface of abdomen, and occupying the whole space between the pulmonary opercula, whose stigmata lie a little before the middle of the plate; anterior end of plate strongly emarginate, the edges strongly reflexed on each side of the emargination; hind end of plate sinuated in the middle, the sinus closed by a small, hard brown plate placed vertically behind the genital opening, and itself emarginate in the middle of its lower edge (Pl. XI., fig. 24).

♂. *Pedipalps* with the 3 distal segments nearly pallid, turgid, the femur darker, much slenderer, cylindrical; tarsus subglobular, very broad, appearing, when seen from above, transverse and sinuate in the middle at apex, covered with long hairs on upper and inner surfaces; bulb small, globular, the spine strong, much curved distally, and pointed at apex (Pl. XI., fig. 25).

Length of ♀ ♀ $8\frac{1}{2}$ – $9\frac{1}{2}$, ♂ $6\frac{3}{4}$ mm., of carapace in largest ♀ 4, ♂ 3, of first leg (to base of femur) in ♀ $33\frac{1}{2}$, in ♂ 35.

Young coloured much as in the adult, the abdomen without yellow transverse stripes.

2. *DRYMUSA PRODUCTA*, n. sp.

Specimens.—3 ♀ ♀ (No. 7905) from the forest on the mountain-side at Swellendam (*W. F. P.*, August, 1900).

Colour not quite so dark as in the preceding species, the legs much more yellowish in the distal half at least, the abdomen marked above with about 3 pairs of yellow spots in the middle part, followed behind by indications of fine, yellow, transverse lines.

Clypeus about equal to twice the length of a median eye.

Abdomen like that of the foregoing, but the hardened brown plate before the genital opening much smaller, not reaching anterior end of abdomen, although extending backwards to or nearly to the middle

of the ventral surface, the plate somewhat saddle-shaped, the anterior part not raised and gradually passing over into the soft integument, the hind part distinctly hardened and browned, emarginate in the middle of hind margin, with transverse cluster of short setæ. No differentiated plate posterior to genital opening (Pl. XI., fig. 26).

Length $7\frac{1}{2}$, of carapace $3\frac{1}{2}$, of first leg $26\frac{1}{2}$ mm.

The adult ♀♀ of the 3 South African species may be distinguished as follows:—

- a. Vulva placed far forward; the epigastric area not produced backwards in the middle below, where its hind margin is broadly sinuated, the sinus touching a line joining the hind ends of the pulmonary spiracles. Cape Peninsula.
D. capensis,* E. Sim.
- b. Vulva placed at or near middle of ventral surface of abdomen, the epigastric area very strongly produced backwards in the middle below far behind the spiracles, the posterior part at least being hardened to form an epigynum.
 - a¹. Plate of vulva very large, reaching anterior end of abdomen; vulva closed behind by a small, transverse, vertical sclerite. Knysna. *D. silvicola*, n. sp.
 - b¹. Plate of vulva much smaller, not reaching anterior end of abdomen; the vulva without additional posterior sclerite. Swellendam.
D. producta, n. sp.

FAMILY DYSDERIDÆ.

GEN. ARIADNA, Aud.

I. ARIADNA DENTIGERA, n. sp.

1 ♀ (No. 8600) from the side of Table Mountain above Newlands (W. F. P., August, 1900).

Colour.—Carapace dark reddish-brown, paler behind but almost black anteriorly, with iridescent sheen, the margins finely blackened; chelicera black, with strong iridescent sheen (in spirits); abdomen pale fulvous yellow below, brown between the pulmonary opercula, the dorsal surface dark violaceous; legs and sternum reddish-ochraceous, the anterior legs slightly more reddish distally but without dorsal markings, the sternum brown at the margins, iridescent, darker in the strong, intersegmental, lateral depressions.

Carapace as long as the tibia and $\frac{3}{4}$ of the metatarsus of first leg, very broad in front, its width just behind the ocular area almost equalling the length of the first tibia. Ocular area wide, the distance between the median and posterior lateral eyes slightly exceeding the width of the 2 median eyes together; the eyes subcontiguous

* The type of this species was very immature, for the adult ♀, which is larger than either of the two new species, attains a length of $13\frac{1}{2}$ mm., the length of the first leg (from base of femur) being 47 mm.

in pairs, the posterior row with its hind margin forming a slightly recurved line, wider than the anterior row; the lateral eyes oval, subequal, longer than the rotund medians.

Legs longish, not stout, the fourth femur not thickened, equalling the first in thickness. The hairs mostly rather short and not dense. *Metatarsus* I. a trifle longer than the tibia, with a double outer and treble inner series of spines, the superior spines shorter; II. spined as in I.; III. with 1 posterior row of spines and an anterior band 3 rows deep; IV. with 1 inner and 3 outer rows, the middle outer row composed of 3-4 spines, the others mostly of 1 spine each, the transverse apical comb at inferior inner edge composed of a single series of many long setæ of equal length and very close together. *Tibia* I. with broad inner and outer bands of stout spines, arranged in 3-4 irregular rows in each band (16-17 in inner and 12-13 in outer), the lowest spines not very long but longer than the others; the 2 inferior rows not very far apart; II. with about half as many spines in the bands, the spines 2-3 deep in each band; III. with 1 anterior and 3 posterior rows; IV. with 3-4 inferior outer, 1 inferior inner, and 2 superior inner spines. *Patella* III. with 1 anterior upper spine, the rest unspined. *Femora* with 2 (rarely 3) dorsal spines and 1 distal inner spine, the latter absent only in the fourth pair.

Inner margin of *chelicera* with 3 teeth in the upper row and with a single inferior apical tooth in addition, the latter very distinct and as strong as the others.

Length of abdomen and carapace $13\frac{1}{2}$, of carapace $5\frac{2}{3}$ mm.

2. *ARIADNA LIGHTFOOTI*, n. sp.

1 ♀ (No. 12903) from Hermanuspetersfontein, Caledon Div. (*R. M. Lightfoot*, February, 1902).

Colour.—Carapace pale yellowish, with black hairs, lightly infuscated at the sides posteriorly, the margins finely blackened. Legs pale yellowish, the femora, patellæ, and tibiæ more or less infuscated on the sides, the infuscation darkest on the 2 anterior pairs, especially on the femora (which are longitudinally banded with yellow), but very faint on the posterior pairs, the upper surface of the femora and of the anterior tibiæ also faintly infuscated along the middle line. Chelicerae yellowish. Abdomen purplish-black, with narrow yellow line on each side, the epigastric area, excepting the black transverse patch in front of vulva, pallid. Sternum black. Labium and coxæ pale yellowish, narrowly blackened at the tips.

Carapace only a little shorter than the tibia and metatarsus of first

leg, narrowed in front, its width just behind the ocular area about $\frac{1}{2}$ of the length of the first tibia. Ocular area much as in *dentigera*, n. sp., but the distance between the posterior laterals and the medians subequal to the united width of the latter.

Legs relatively shorter, and, especially the first tibia and fourth femur, stouter than in *dentigera*, the fourth femur being distinctly a little thicker than that of first leg; also, the anterior legs, especially, more densely clothed with black hairs. *Metatarsus* I. a little longer than the tibia, I. and II. with a single series of stout spines on each side, II. with an additional inner spine above the inner row near base; III. with 1 posterior and 3 anterior rows of 2-3 spines each; IV. with 1 basal and 1 apical outer spine only, the apical tuft composed of 6 setæ. *Tibia* I. with 3-4 rows of spines (7-8 in the lowest row and 5-8 in the others together) on each side, the 2 inferior rows very far apart; II. with 2 rows on each side and often a single additional spine between the rows, the inner rows each of 5 spines, the lower row abbreviated at base, the outer rows of 3-5 (upper) and 8-9 (lower) spines; III. with 1 anterior and 3 posterior rows; IV. unspined. *Patellæ* unspined. *Femora* I. and II. with 4-5, III. with 2, IV. with 0-2 medio-dorsal spines, I. also with 3 (in 2 rows), II.-III. with 2 and IV. with 0-1 inner distal spines, I. and II. besides with 1-2 outer distal spines.

Chelicera with 3 superior and 1 tiny inferior tooth.

Length 11, of carapace 5 mm.

3. ARIADNA JUBATA, n. sp.

2 ♀ ♀ (No. 12830) from Tsabis (in Bushmanland), 20 miles north-east of Concordia, Namaqualand Div. (*J. H. C. Krapohl*, 1902). Allied to *lightfooti*, n. sp.

Colour.—Carapace light brown, the cephalic portion darkened on each side in front, veined with black posteriorly in one specimen. Chelicera dark reddish-brown. Posterior pairs of legs pale ochraceous, not at all or only faintly infuscated, the anterior pairs reddish-yellow or reddish, infuscated at least on the under surface and on distal part of inner surface of femora and on distal part of upper side of tibiæ along the median line. Abdomen purplish-black, with narrow lateral yellow line, or the lateral and ventral surfaces almost entirely pallid but with a pair of purplish marks posteriorly below. Sternum and labium brownish-yellow, the latter dark brown on each side.

Carapace as long as the tibia and nearly $\frac{3}{4}$ of the metatarsus of first leg, narrowed in front, its width just behind the ocular area about

$\frac{3}{4}$ of the length of the first tibia. Ocular area narrower than in *lightfooti*, the posterior lateral eyes being separated from the medians by a space subequal to the width of one of the latter eyes.

Legs.—Fourth femur thicker than the first; anterior pair of legs thickly clothed with long olive-brown hairs on the patella, tibia, and metatarsus, forming a thick mane, particularly on the upper side, the first tibia thick, its width subequal to the space between the posterior lateral eyes. *Metatarsus* I. as long as the tibia; I. and II. with a single series of spines on each side below; III. with 2 anterior and 2 posterior rows of 2–3 (rarely 1) spines each; IV. with 1 apical and 0–1 basal spine below and 3–4 setæ in the apical comb. *Tibia* I. with 5–7 spines in each inferior row, besides 3–4 others on each side; II. with 3 spines on each side above the inferior row; III. with 1 anterior and 2 posterior rows; IV. unspined. *Patella* I. with 1 outer and 1–2 inner spines; II. and III. also spined on one or both sides. *Femora* I.–III. with dorsal, inner distal, and generally also outer distal spines, the inner distal spines on I. numerous, 7–9 in number, and placed in 3 rows; IV. unspined.

Chelicera without distinguishable inferior tooth.

Length $9\frac{1}{2}$ mm.

4. *ARIADNA KOLBEI*, n. sp.

1 ♀ (No. 5316) from the Kentani District, Transkei (*Rev. F. C. Kolbe*, 1899).

Colour.—Carapace dark reddish-brown, very dark anteriorly. Chelicera black. Posterior legs rufescent, the anterior legs reddish, the first pair dark red, with lighter patella. Abdomen pallid, suffused with dark purplish above, especially posteriorly. Sternum yellowish-brown. Labium dark brown.

Carapace as long as the tibia and $\frac{3}{4}$ of the tarsus of first leg, its width behind the ocular area $\frac{3}{4}$ of the length of first tibia. Ocular area much as in *lightfooti*, n. sp.

Legs much as in *lightfooti*, except: *Metatarsus* I., if anything, a trifle shorter than the tibia, IV. with about 8 setæ in the comb; *tibia* I. with 6–8 spines in the lower rows and 3–4 in each upper row, II. with 9–11 outer and 4 inner spines below and 4 inner and 2 outer more superior spines, III. with 1 inferior row of 3–4 and 1 anterior upper row of 2 spines; *patella* I. with strong inferior inner spine; *femora* each with about 4 medio-dorsal spines, otherwise as in *lightfooti*.

Chelicera as in *lightfooti*.

Length $14\frac{1}{2}$, of carapace $7\frac{1}{4}$ mm.

5. *ARIADNA BILINEATA*, n. sp.

Specimens.—(a) 4 adult ♀♀ (Nos. 3443, 3532, &c.), several with cocoons, from Signal Hill and the slopes of Devil's Peak (*R. M. Lightfoot, W. F. P.*), and a number of others, apparently immature, also from the Cape Peninsula.

♀♀. *Colour*.—Carapace reddish-yellow to dark reddish-brown, sometimes nearly black anteriorly, the margins finely blackened, the surface hairy and usually finely veined with black, the posterior part of the cephalic portion generally finely outlined in black. Chelicera yellowish-red to black. Abdomen with a fine, pale yellowish line running from end to end down middle of each lateral surface, the dorsal surface violet-black, generally with several very fine, transverse, arcuate, yellowish lines posteriorly, the ventral and lateral surfaces (below the lines) either violet-black (except the pulmonary opercula and a pale yellowish patch on each side posteriorly) or pale yellowish, with a pair of posterior black patches below, a black patch between the lungs and an anterior black area on each side. Legs faintly or strongly infuscated, the 2 anterior pairs darker than the posterior ones, the femora with 2 upper and 1 outer pale yellow stripe, the outer stripe on fourth leg very short, basal; patellæ pale yellowish, infuscated distally; tibiæ with 2 widely separated, superior, yellowish stripes; metatarsi and tarsi paler than the tibiæ and femora, the metatarsi nearly all blackened at apex, at least on inner side. Sternum reddish-yellow, lightly infuscated, the lateral margins and depressions generally much blackened. Labium darkened at base.

Carapace as long as the tibia and about $\frac{2}{3}$ of the metatarsus of first leg, narrowed in front, its width just behind the eyes only about $\frac{3}{4}$ of the length of the first tibia, its surface sparsely hairy. Ocular area rather narrow, the distance between the posterior lateral eyes and the median eyes being less than the united width of the latter, the hind margin of the posterior row forming a straight or slightly recurved line.

Legs clothed with brown hairs, the hairs on anterior tibia neither long nor very dense; fourth femur slightly thicker than the first, the first tibia not much thickened. *Metatarsus* I. a little shorter than the tibia; I. and II. with a single outer and inner row of stout spines below; III. with 2 inferior rows of spines, besides an outer and an inner row of 1–2 spines each; IV. with a slender apical and sometimes a basal spine below, the apical tuft composed of 4–7 setæ. *Tibia* I. with an outer and an inner row of 6–9 stout spines each below, in addition to an outer and an inner row of 3 (rarely 2) spines

each on the sides; II. spined much as in I., except that the inner row is composed of fewer spines than the outer; III. with an anterior row of 0-2 and 2 posterior rows of 2-4 spines each; IV. unspined. *Patellæ* not spined. *Femora* I.-III. with a medio-dorsal row of several spines and an outer distal row of 1-2 spines, I. also with an inner distal group of 3-4 spines; II. and III. with 1-2 inner distal spines; IV. unspined.

Chelicera with the lower tooth obsolete or scarcely distinguishable.

Length of carapace and abdomen $5\frac{1}{2}$ - $7\frac{1}{2}$ mm.

This is the smallest and at the same time the commonest of the 3 species found in the Cape Peninsula. In the apparently immature specimens the legs are pale yellow, with much less or even scarcely any infuscation, which is often limited to the tips of the segments of the anterior legs.

(b) 1 ♀, with cocoon, from the Hottentots Holland Mountains above Gordon's Bay (*R. M. Lightfoot*).

(c) 3 ♀ ♀ from the Paarl (*R. M. Lightfoot*), with the sternum darkened and with median yellow stripe.

(d) 1 ♀ from Hermanuspetersfontein, Caledon Div. (*R. M. Lightfoot*).

(e) 2 ♀ ♀ from St. Helena Bay, Malmesbury Div. (*J. E. C. Gould*), with the abdomen much more yellow than in the types.

6. ARIADNA KARROOICA, n. sp.

Specimens.—(a) A ♀ (No. 12902) and a ♂ (No. 12845) from Hanover and a ♀ (No. 11963) from Eierfontein, 8-9 miles west of Hanover (*S. C. Cronwright Schreiner*, 1901).

♀ ♀ (*Types*). Very like *bilineata*, but with stouter anterior tibiæ.

Colour of carapace and legs as in the darkest specimens of *bilineata*, but the anterior metatarsi dark reddish or almost black. Abdomen pallid, more or less suffused with purplish, at least on the dorsal and ventral surfaces, the middle of the epigastric area and sometimes a couple of posterior ventral patches dark purplish. Sternum and labium deep blackish-brown, the labium sometimes paler at apex.

Carapace as in *bilineata*, but the posterior row of eyes slightly wider and with its hind margin forming a slightly procurved line (seen from above).

Legs like those of *bilineata*, except that the anterior tibiæ are thicker and more densely clothed with long dark brown hairs; fourth

metatarsus with stout basal as well as apical spine below; tibia I. with 5-6 spines in each inferior row, besides 3-4 inner and 5-6 outer more superior spines, the latter in 2 rows, II. with 3 inner and 4-5 outer spines above the inferior row of 6-7 spines; patella I. with short internal spine; femur IV. with dorsal spines and sometimes also a distal internal spine.

Chelicera with the inferior tooth very minute, scarcely distinguishable.

♂. Resembling the ♀ ♀, but with the legs much longer, paler in colour and differently spined.

Carapace as long as the first metatarsus.

Legs.—*Metatarsus* I. sinuous, curving upwards at base and downwards at apex, as long as the tibia and a little more than $\frac{1}{2}$ the patella, spines 3 on each side below and 1 on inner surface near base; II. with 3 spines on each side below and 1-3 more superior ones on each side; III. with 2 posterior and 2 anterior rows of 2-3 spines each; IV. with 1 distal and 1 stout basal spine below and an apical comb of setæ. *Tibia* I. with 6-7 spines in outer but only 2 in inner inferior row, besides 8-10 outer and 6 inner more superior spines; II. as in I., but with 3 spines in the inner inferior row; III. with several rows of spines; IV. with 1 inner (apical) and 2 outer (mesial and basal) spines below. *Patellæ* I.-III. with 2 (sometimes 1) inner and 1-2 outer spines; IV. unspined. *Femora* with the spines more numerous, but otherwise as in the ♀.

Pedipalps with the tibia incrassated. Palpal organ, seen from outer side, as in Pl. XI., fig. 27, the spine being curved in the middle and strong, except the short distal portion, which is bent almost at right angles and very slender and filiform.

Length ♀ 10, ♂ $7\frac{1}{2}$ mm.

(b) 1 ♀ from Port Elizabeth (*J. L. Drège*, 1903), with black hairs on the anterior legs and the posterior row of eyes not procurved.

7. *ARIADNA CAPENSIS*, n. sp.

1 ♀ (No. 5830) from Wynberg Hill (*F. Treleaven*, February, 1899).

Colour brownish-red, the head darker, especially anteriorly. Legs rufescent, the anterior ones redder, the first pair brownish-red, darkest on the tibia and metatarsus; anterior femora infuscated along middle below and on distal part of inner surface. *Chelicera* reddish-black. Abdomen purplish-black, with narrow yellow line on each side. Sternum reddish-brown. Labium dark brown, paler at apex. Coxæ reddish-yellow, scarcely at all infuscated.

Carapace a little shorter than the tibia and metatarsus of first leg;

width of head behind ocular area nearly $\frac{2}{3}$ of the length of first tibia. Posterior row of eyes slightly recurved, the medians together slightly wider than their distance from the posterior laterals.

Legs moderately hairy, resembling those of *bilineata*, except: *Metatarsus* II. sometimes with an inner upper spine at base; III. with 2 inferior and 1 anterior row of spines; IV. with a stout apical and basal inferior spine and 3-5 setæ in the apical comb. *Tibiæ* I. and II. with 6 spines in each inferior row, except the inner row of II., which has only 4 spines, the superior rows always of 3 spines; III. with 1 outer spine besides an inferior row of 3. *Femur* IV. spined above at base.

Chelicera with the lower tooth obsolete.

Length $9\frac{1}{4}$ mm.

8. *ARIADNA SEGESTRIOIDES*, n. sp.

1 ♀ (No. 8396) from Dunbrody, Uitenhage Div. (*Rev. J. A. O'Neil*, 1898).

Resembling a *Segestria* in appearance.

Colour.—Carapace blackish-brown, slightly paler in the middle. Chelicera reddish-black. Legs blackish-brown to nearly black, the 2 posterior pairs paler distally, their tarsi, and, to a lesser extent, their metatarsi, pale yellowish, the 2 anterior pairs of tarsi reddish. Abdomen pallid, with a median series of purplish spots above, the under surface faintly suffused with purplish and with a dark purplish patch posteriorly before the spinners. Sternum and labium blackish-brown.

Carapace as long as the tibia and about $\frac{4}{5}$ — $\frac{5}{6}$ of the metatarsus of first leg, its width just behind the eyes about $\frac{2}{3}$ of the length of the first tibia and much shorter than the metatarsus. Median eyes in close contact, their united width slightly exceeding their distance from the laterals, the posterior row recurved.

Legs.—Fourth femur not thicker than the first, its dorsal length more than 3 times its greatest thickness. Anterior tibia stout, nearly cylindrical, its width a little less than the space between the posterior lateral eyes. Short hairs on outer upper surface of the 3 anterior pairs of patellæ and tibiæ slightly thickened at base. *Metatarsus* I. considerably shorter than the tibia. Spines as in *bilineata*, n. sp., except: *Metatarsus* II. with 2 (sometimes 1) superior spines on each side, IV. with 4-5 setæ in the apical tuft and 4 stout spines below (including an apical pair); *tibia* I. with 3 inner and 3-4 outer superior spines, II. with 5-6 outer and 3 inner superior spines, III. with 2 rows of inferior spines, besides a row of

3 on posterior surface, IV. with 3 inferior spines; *femora* I.–III. with a couple of dorsal and generally 1–2 outer distal spines, I. also with 3, II.–III. with 1–2, and IV. with 1 inner distal spine. Inferior tooth of *chelicera* indistinguishable. Length $10\frac{3}{4}$, of carapace $4\frac{1}{4}$ mm.

9. *ARIADNA UMTALICA*, n. sp.

Specimens.—(a) 1 ♀ (No. 12546) from Baviaanskop, 3 miles east of Umtali, Mashonaland (*D. L. Patrick*, June, 1902).

Colour.—Carapace dark brown, the ocular area black; *chelicera* reddish-black; abdomen pallid, suffused with purplish; legs infuscated as in dark specimens of *bilineata*, the 4 distal segments of the 2 posterior pairs, however, reddish-ochraceous above; the anterior tibia and metatarsus blackish-red; sternum and labium brown, the latter paler at apex.

Carapace as long as the tibia and $\frac{3}{4}$ of the metatarsus of first leg, much narrower in front, its width behind the ocular area about $\frac{2}{3}$ of the length of first tibia. Ocular area as in *bilineata*.

Legs.—Anterior legs, especially on the tibiae, rather thickly clothed with longish, curved, black hairs, the first tibia stout, its width at least equal to the space between the posterior lateral eyes. Legs otherwise much as in *bilineata*, except: *Metatarsus* II. with an inner basal spine above the inferior row, III. with 2 anterior rows of 2–3 spines and a postero-inferior row of 4–6 spines, IV. with 5 stout spines (including an apical pair), the comb with about 8 setæ; *tibia* I. with 4 outer spines above the inferior row, III. with an anterior upper row of 2 and a posterior lower row of 3 spines, IV. with 0–1 inferior spines; *patella* I. with a short external spine; *femur* IV. with 1 inner distal and some dorsal spines.

Chelicera with minute distal tooth on lower margin.

Length 12, of carapace 5 mm.

(b) 1 ♀ from Kuruman, Bechuanaland (*G. E. Beare*). Length $15\frac{1}{4}$ mm. Larger than the type specimen, with darker abdomen and carapace, the latter as long as the tibia and $\frac{2}{3}$ of the metatarsus of first leg; otherwise apparently not differing from the type.

10. *ARIADNA SCABRIPES*, n. sp.

Specimens.—6 specimens, including several apparently adult ♀ ♀ (Nos. 9470, &c.), from Hanover (*S. C. Cronwright Schreiner*).

♀ ♀. *Colour*.—Carapace ochraceous, its lateral margins not blackened, the cephalic portion paler behind, brown at the sides

in front and blackened at the anterior margin, at least laterally. Chelicera brown or brownish-yellow, black at apex. Abdomen pallid, or the upper surface more or less suffused with dark purplish, the ventral surface with a pair of purplish patches posteriorly and sometimes one before the vulva. Legs almost uniformly pale yellowish, the anterior tarsi often darker than the other segments, which are without infuscated marks. Coxæ and sternum pale yellowish, the latter sometimes partly purplish; labium mostly infuscated at base, pale yellowish at apex.

Carapace subequal to or almost as long as the tibia and metatarsus of first leg, narrowed in front, its width just behind the ocular area about $\frac{4}{5}$ that of the tibia and subequal to that of the metatarsus of first leg. Median eyes in close contact, their distance from the posterior laterals generally less than (sometimes subequal to) their united width.

Legs rather short, stout, especially the fourth femur and first tibia, the former very distinctly thicker than the first femur, its dorsal length being only $2\frac{1}{2}$ times its greatest thickness, anterior tibia much stouter than the second pair and somewhat fusiform, its width being subequal to the space between the posterior pair of lateral eyes. Short hairs on the dorsal surface and upper part of lateral surface of patellæ and tibiæ of the 3 anterior pairs peculiar, being very numerous, curved, and suddenly swollen at the base, the long hairs on the segments normal, the naked strips on the dorsal surface narrower than usual, those on the patellæ being narrower than the setose strip between them. *Metatarsus* I. much shorter than the tibia, I. and II. with a single series of 7-8 (rarely 9) spines on each side, rarely with an additional superior spine on one of the legs; III. mostly with 2 anterior and 2 posterior rows of 1-3 spines each; IV. with 5 (sometimes only 4) stout spines below, including an apical pair, the apical tuft composed of 5-7 setæ. *Tibiæ* I. and II. with 5-10 spines in the lower rows (the inner row of second leg composed of only 3-4 spines), the upper row on each of 3-4 spines in I. and 0-3 in II., intermediate spines absent; III. with an infero-posterior row of 3-4 spines and occasionally with a posterior spine in addition, but without anterior spines; IV. with 0-2 inferior spines. *Patellæ* unspined. *Femur* I. with an internal and sometimes also a dorsal apical spine; II. unspined or with 1 internal and 1-2 dorsal spines; III. and IV. unspined.

Chelicera with 3 tiny teeth on superior border and a very minute, sometimes scarcely distinguishable, apical denticle on inferior border of inner margin.

Length of largest ♀ $9\frac{3}{4}$, of carapace 4 mm.

Synopsis of the South African species (♀ ♀) of *Ariadna* * :—

- a. Chelicera with the apical tooth of inferior margin of inner surface well developed and as large as the 3 teeth of superior margin. Head very broad in front, its width behind the ocular area almost equalling the length of the first tibia. Metatarsi I. and II. with 2-3 rows of spines on each side. Cape Peninsula. 1. *A. dentigera*, n. sp.
- b. Chelicera with the inferior tooth minute or obsolete, smaller than the superior teeth. Head narrowed in front, its width about $\frac{2}{3}$ of the length of first tibia. Metatarsi I. and II. with only 1 row of spines on each side (sometimes with 1-2 superior spines in addition).
- a¹. Metatarsus of first leg subequal to or longer than the tibia.
- a². Tibia I. with 5-8 spines above the inferior row on each side. Anterior patella not spined. Caledon Div. 2. *A. lightfooti*, n. sp.
- b². Tibia I. with 3-4 spines on each side above the inferior row. Anterior patella spined.
- a³. Width of both median eyes together much greater than their distance from posterior lateral eyes. Bushmanland 3. *A. jubata*, n. sp.
- b³. Width of both median eyes together not greater than their distance from posterior lateral eyes. Kentani District.
4. *A. kolbei*, n. sp.
- b⁴. Metatarsus of first leg distinctly shorter than the tibia.
- a⁴. Legs short, the length of the first metatarsus being subequal to the width of the head just behind the eyes, and the fourth femur only about $2\frac{1}{2}$ times as long above as high. Colour yellow. Hanover.
10. *A. scabripes*, n. sp.
- b⁴. Legs longer.
- a⁵. Tibia I. with 5-6 superior spines on outer side. Patella I. spined internally. Hanover and Port Elizabeth 6. *A. karrooica*, n. sp.
- b⁵. Tibia I. with only 3-4 superior spines on each side. Patella not spined internally.
- a⁶. Patella I. not spined at all.
- a⁷. Metatarsus IV. with 1-2 spines below. Tibia IV. unspined.
- a⁸. Carapace as long as the tibia and $\frac{2}{3}$ of the metatarsus of first leg. Cape, Caledon, Stellenbosch, Paarl, and Malmesbury Divs. 5. *A. bilineata*, n. sp.
- b⁸. Carapace only a little shorter than the tibia and metatarsus of first leg. Cape Peninsula. 7. *A. capensis*, n. sp.
- b⁷. Metatarsus IV. with 4 stout spines below. Tibia IV. spined below. Uitenhage Div. 8. *A. segestrioides*, n. sp.
- b⁶. Patella I. spined externally. Mashonaland and Bechuanaland.
9. *A. umtalica*, n. sp.

GEN. SEGESTRIELLA, n. gen.

Allied to *Ariadna*, Aud., but differing in having the body elongate cylindrical, the abdomen obtusely produced beyond the spinners, and the fourth pair of legs very short, not reaching hind end of abdomen when stretched out and with the femur very short and stout, strongly

* Simon mentions the occurrence of the genus in South Africa, but does not appear to have described any of the species.

swollen dorsally, the width of the femur between dorsal and ventral edges about $\frac{1}{2}$ its dorsal length and almost twice the width of the first femur.

SEGESTRIELLA GRYLLOTALPA, n. sp.

1 ♀ (No. 11698) from Stompneus, St. Helena Bay, Malmesbury Div. (*J. E. C. Goold*, 1902).

Colour.—Carapace brownish red, yellowish at the sides posteriorly and at hind margin, with some radiating infuscate marks, the head dark reddish-brown to nearly black. Chelicera black. Abdomen pale yellowish, with the following purplish-black markings: A band crossing anterior end above the pedicle and extending backwards down each side to middle of abdomen; a median, moniliform, dorsal band, narrow in front but broad behind, extending along whole length; a pair of large ventral marks in front of the spinners, each sending a faint stripe anteriorly to the posterior spiracles, which are joined by a transverse band. Legs pale ochraceous, the second pair infuscated on dorsal surface of femur, apex of tibia, basal half and apex of metatarsus and distal half of tarsus; the first pair darker, with brown tibia, infuscated as in the second pair. Coxæ pale yellowish. Sternum yellow, partly blackened. Labium dark brown at base, paler distally.

Carapace as long as the tibia, metatarsus and $\frac{3}{4}$ of the tarsus of first leg, with sinuous lateral margins, narrowed in front and slightly constricted behind the narrowed part, of which the width is distinctly less than the length of the first tibia. Ocular area with slightly recurved hind margin, the width of the 2 median eyes slightly exceeding their distance from the posterior lateral eyes.

Legs with black hairs, the first tibia stout, its width equal to the space between the posterior lateral eyes. *Metatarsus* I. as long as the tibia; I. and II. with 7–9 spines in each inferior row; III. with 1 inner superior spine and 1 inner and 3 outer inferior spines; IV. with 1 apical spine below and 3–4 setæ in the comb. *Tibia* I.–II. with 5–8 spines in each inferior row; I. also with 3 outer and 4 inner, and II. with 0 outer and 3 inner more superior spines; III. with 2 outer inferior spines; IV. unspined. *Patellæ* unspined. *Femur* I. with 2–3, II. with 2, and III. with 0–1 dorsal spines; I.–III. also with 1 internal distal spine; IV. unspined.

Chelicera with 3 small superior teeth and 1 minute apical inferior denticle.

Length $10\frac{1}{2}$, of carapace $3\frac{3}{4}$, of abdomen 6 mm.; width of carapace 2, of abdomen $2\frac{1}{4}$ mm.

FAMILY CAPONIIDÆ.

GEN. CAPONIA, E. Sim.

1. CAPONIA SPIRALIFERA, n. sp.

Specimens.—20 ♂♂ and 28 ♀♀ and young (No. 9469, &c.) from Hanover (S. C. Cronwright Schreiner).

♂♂ ♀♀. *Colour*.—Carapace and limbs deep yellow or somewhat orange-yellow. Sternum yellow, with large, roundish-cordate, orange, central area, which is more distinctly defined in the ♂♂ than in the ♀♀; abdomen pale yellow, often with ventral blackish mark posteriorly in the ♀♀; the claws, the area containing the median eyes, and the base of each lateral eye black, the margins of the sternum with a black or dark brown spot at base of each leg or at least of each of the 3 posterior pairs.

Carapace as long as the tibia, metatarsus, and $\frac{1}{2}$ — $\frac{3}{4}$ of the tarsus of first leg. Anterior lateral eyes a little larger than the posterior lateral eyes, the middle lateral eyes variable, equal to (rarely slightly smaller than) the posterior eyes or intermediate in size between the anterior and posterior pair (very rarely subequal to the anterior pair).

Palpal organ of ♂.—Process of bulb curved somewhat spirally, the outwardly directed basal part rather longish, scarcely thickened at the end, which is obtuse and rounded (Pl. XI., fig. 29); the middle portion clavate distally and curving outwards and bearing a small, simply recurved, inner, distal spine, and sometimes a tiny process next to it; the distal portion strong, recurved, bifid at apex, the main branch short, compressed, obliquely lanceolate and pointed (Pl. XI., fig. 28), the inferior branch longer, slender, filiform and subterete, the apices of the 2 branches diverging.

Length of ♂♂ 7–9, of ♀♀ up to $12\frac{1}{4}$ mm.

2. CAPONIA KARROOICA, n. sp.

Specimens.—4 ♂♂ and 3 ♀♀ (No. 12876) collected at Matjesfontein, Worcester Div., by Mr. R. M. Lightfoot, my wife, and myself.

Very close to *C. spiralifera*, n. sp., but differing slightly in the structure of the palpal organ of the ♂.

Carapace and colour as in *spiralifera*, but the abdomen without posterior black patch below.

Process of palpal organ with the outwardly directed basal part

short, nearly or quite rectangular at the bend (except in one specimen, where it is almost as in *spiralifera*); the middle part with its clavate apex not or scarcely curving outwards and bearing a compressed, strongly sigmoid, inner distal spine; the distal incurved part with shorter apical fork, of which the longer inferior branch is distinctly compressed and laminate and about as broad as the evenly pointed shorter main branch (Pl. XI., fig. 30).

Length ♂♂ $6\frac{1}{4}$ – $7\frac{1}{4}$ mm., ♀ up to 9 mm.

3. *CAPONIA FORFICIFERA*, n. sp.

Specimens.—(a) 2 ♂♂ (No. 7815) from Brandvlei, Worcester Div. (*I. Meiring, W. F. P.*, August, 1900).

Colour as in the foregoing species, but the carapace and, to a lesser extent, the limbs more orange; abdomen without posterior black patch.

Carapace very slightly or very distinctly longer than the tibia, metatarsus, and tarsus of first leg. Eyes as in the foregoing species.

Process of pedipalp with the basal part short, scarcely or not at all thickened at the bend, which is obtuse and rounded; clavate end of middle part not curving outwards and bearing a lightly curved inner spine, which runs close to the inturned distal part; the latter with the fork very short, scissors-shaped, both blades compressed and subsimilar or the inferior branch slightly longer and narrower than the main branch (Pl. XI., fig. 31).

Length 7 mm.

(b) 1 ♂ from the Pass at Avontuur near Stormsvlei, Swellendam Div. (*W. F. P.*).

(c) 1 ♂ from the forest at Knysna (*W. F. P.*, March, 1896). Colour yellow (evidently that of a recently moulted specimen).

4. *CAPONIA BRAUNSI*, n. sp.

1 ♂ (No. 12905) from Willowmore (*Dr. H. Brauns*).

Closely allied to the preceding species but larger.

Carapace dark orange, the central part paler yellowish; its length equal to that of the tibia, metatarsus, and about $\frac{3}{4}$ of the tarsus of first leg.

Process of pedipalp with the basal bend thickened and angular but the apical fork small and nearly as in *forficifera*, n. sp.; the inferior branch slenderer than the main branch (Pl. XI., fig. 32).

Length $10\frac{3}{4}$ mm.

5. *CAPONIA CAPENSIS*, n. sp.

Specimens.—(a) 1 ♂ (No. 12835) from the slopes of Devil's Peak (*W. F. P.*, September, 1903) and several ♀ ♀, all from the Cape Peninsula.

♂. Closely allied to *forcifera*, n. sp., but differing slightly in the form of the palpal organ, the process of which has the basal part thickened at the bend to form a prominent angle, the fork of the distal part larger, both branches compressed and strongly acuminate at the apex, and the inferior branch a little longer than the main branch (Pl. XI., fig. 33).

Carapace and *colour* as in *forcifera*.

Length 8 mm.

(b) 2 ♂ ♂ and several ♀ ♀ from Stompneus, St. Helena Bay, Malmesbury Div. (*J. E. C. Goold*).

6. *CAPONIA HASTIFERA*, n. sp.

Specimens.—(a) 2 ♂ ♂ (No. 12847) from Willowmore (*Dr. H. Brauns*, 1903).

Carapace orange-yellow, paler in the middle, its length slightly or distinctly exceeding that of the tibia, metatarsus, and tarsus of first leg.

Process of pedipalp with the basal part short, more or less angular at the bend; the inner spine at distal end of middle part strong, acuminate, curved near base; the main branch of apical fork laminate, pointed and curving towards the inferior branch, which is longer, filiform, and much slenderer (Pl. XI., fig. 34).

Length $7\frac{1}{2}$ mm.

(b) 1 ♂ and 1 ♀ from Dunbrody, Uitenhage Div. (*Rev. J. A. O'Neil*, 1899).

7. *CAPONIA SIMONI*, n. sp.

1 ♂ and 1 ♀ (No. 3310) from Worcester (*W. F. P.*, September, 1896).

♂. *Carapace* orange, its length a little less than that of the tibia, metatarsus, and tarsus of first leg; eyes as in all the foregoing species.

Process of pedipalp with the basal part longish and strongly produced at the bend; the inner spine at distal end of the middle part short, recurved, and rod-like, with rather obtuse (not acuminate) apex; the distal part with the inferior branch of the apical fork laminate, broader than the main branch and itself bifid (Pl. XI., fig. 35).

Length $5\frac{3}{4}$ mm.

Synopsis of the species of *Caponia* (♂♂) described above* :—

- a. Process of pedipalp bifid at apex, the branches entire.
 - a¹. Inturned distal part of process strongly recurved in the direction of the clavate middle part (figs. 29–30). Carapace shorter than the tibia, metatarsus, and tarsus of first leg.
 - a². Inner spine at distal end of the clavate middle part of process simply recurved; basal part of process longish, obtuse at the bend (fig. 29). Hanover 1. *C. spiralifera*, n. sp.
 - b². Inner spine of middle part of process sigmoid; basal part of process short, more angular at the bend (fig. 30). Matjesfontein.
 - 2. *C. karrooica*, n. sp.
 - b¹. Inturned distal part of process not recurved in the direction of the clavate middle part (as in figs. 31–34).
 - a³. Apical fork of process small (figs. 31 and 32).
 - a⁴. Branches of fork more or less subsimilar; basal bend of process obtuse and rounded (fig. 31). Carapace at least as long as the tibia, metatarsus, and tarsus of first leg. Worcester, Swellendam, and Knysna Divs. 3. *C. forficifera*, n. sp.
 - b⁴. Inferior branch of fork much slenderer than the main one; basal bend of process angular (fig. 32). Carapace shorter than the tibia, metatarsus, and tarsus of first leg. Willowmore.
 - 4. *C. braunsi*, n. sp.
 - b³. Apical fork of process larger (figs. 33 and 34). Carapace at least as long as the tibia, metatarsus, and tarsus of first leg.
 - a⁵. Branches of fork compressed, nearly equally wide, not converging; basal bend of process strongly angular (fig. 33). Cape and Malmesbury Divs. 5. *C. capensis*, n. sp.
 - b⁵. Inferior branch of fork subulate and much slenderer than the laminate main branch, which converges towards it; basal bend of process less angular at the bend (fig. 34). Willowmore and Uitenhage Divs.
 - 6. *C. hastifera*, n. sp.
 - b. Process of pedipalp bifid at apex, the inferior branch being also bifid; basal part of process strongly produced outwards at the bend (fig. 35). Worcester.
 - 7. *C. simoni*, n. sp.

GEN. DIPLOGLENA, n. gen.

Closely allied to *Caponia* but with the carapace (Pl. XI., fig. 37) much more broadly obtuse in front and with only 2 eyes (corresponding to the median pair and about half a diameter apart); the clypeus many times as long as an eye's diameter and strongly convex, being vertical in front but nearly horizontal behind. Sternum with a short marginal process on each side between the coxæ of the first leg and pedipalp (Pl. XI., fig. 38). Coxæ of pedipalps much

* *C. secunda*, Pocock (Ann. Mag. N. H., ser. 7, vol. vi., p. 321, 1900), from Grahamstown, and *C. natalensis* (O. P. Cambridge) (*Ibid.*, ser. 4, vol. xiv., p. 170, 1874), from Natal are the only other species described. The ♀♀ appear indistinguishable from one another, and *C. secunda* may be identical with any of the species described here. The species figured by E. Simon (Hist. nat. Araign., 2 éd., p. 326, fig. 293) is not identical with *natalensis*.

broader than in *Caponia* but the labium similar. Legs similar in both sexes and resembling those of *Caponia*, except that the first pair, especially their tibia and femur, are much stouter than the second pair.

Male with the patella of pedipalps longer than broad, its under side at least as long as that of the tibia; tibia constricted at base, expanding funnel-shaped distally, its upper side longer than in *Caponia*, being as long as its under side; tarsus reniform, but smaller than in *Caponia*; palpal organ quite different, the bulb having a pair of short spinous processes instead of a very long one.

DIPLOGLENA CAPENSIS, n. sp.

Specimens.—(a) 3 ♂♂, 4 ♀♀, and 2 young (No. 11687, &c.) from St. Helena Bay, Malmesbury Div. (*J. E. C. Goold*, ♂♂ in May and June, 1902).

♂♂ ♀♀. *Colour*.—Carapace orange-red or orange-yellow; legs yellow; abdomen very pale yellowish; sternum orange, with dark marginal spots.

Carapace as long as the tibia, metatarsus, and $\frac{1}{2}$ — $\frac{2}{3}$ of the tarsus of first leg.

Bulb of *palpal organ* bearing at its apex 2 short spinous processes, of which one (usually situated posteriorly and curved inwards) is thick and bears a thin rounded lobe under the truncated apex, while the other (usually situated anteriorly and curved outwards) is strongly flattened and runs from a conically inflated base (Pl. XI., fig. 36):

Length ♂ $6\frac{1}{4}$, ♀ $7\frac{1}{4}$ mm.

Also ♀♀ of apparently the same species from:—

(b) Malmesbury (*W. F. P.*, 1897).

(c) Cape Peninsula (*W. F. P.*, 1896):

FAMILY PRODIDOMIDÆ.

GEN. PRODIDOMUS, Hentz.

I. PRODIDOMUS CAPENSIS, n. sp.

Specimens.—(a) 1 ♀ (No. 717) from Cape Town (*W. F. P.*, August, 1896).

Colour rufescent, the legs paler and more yellowish than the carapace; the abdomen very pale yellowish, the upper surface tinged with purple, especially posteriorly.

Carapace with the front margin obtuse and evenly rounded; hairs

rubbed off; ocular area much wider than long, the space between the 2 posterior eyes slightly exceeding the length of an eye.

Chelicera large, strongly diverging and nearly vertical, their anterior basal angles prominent.

Legs hairy or setose below, at least distally; fourth trochanter as long as the coxa; two posterior pairs of tibiae and metatarsi with 1-2 slender apical spines.

Coxae of pedipalps with the process long and slender.

Vulva consisting of a pair of oval cavities, which converge posteriorly and are bordered on the median and posterior sides by a curved brown ridge; the median line grooved (Pl. XI., fig. 39).

Length of trunk 6.8 mm.

(b) 1 ♀ from Clanwilliam (*Mrs. W. N. C. Marchant*) and 1 ♀ from near Rondegat, near Clanwilliam (*C. L. Leipoldt*). Abdomen sometimes entirely pale yellow. Anterior edge of carapace with numerous fine long hairs.

(c) 1 ♀ from Dunbrody, Uitenhage Div. (*Rev. J. A. O'Neil*).

2. *PRODIDOMUS PURPURASCENS*, n. sp.

1 ♀ (No. 3211) from the northern slopes of Devil's Peak (*F. Treleaven*, November, 1897).

Colour as in *capensis*, but the abdomen darker purple above and the carapace darkened at the edges; the hairs on under side of abdomen fulvous.

Carapace with fine short hairs; the anterior margin with fine long setae, the middle portion before the eyes convexly produced; ocular area only a little wider than long, the space between the 2 posterior eyes slightly less than the length of the eyes.

Chelicera of moderate size, directed downwards and forwards and only moderately diverging, their outer margins only slightly further apart distally than at base, their width together considerably less than that of widest part of carapace.

Legs hairy; fourth trochanter as long as the coxa; two posterior pairs of tibiae and metatarsi with 1-2 fine apical spines, the fourth tibia also with a mesial spine below.

Coxae of pedipalps with the process stout and rather short.

Vulva a transverse plate, brown on each side and pallid along the middle, with a pair of dark spots at hind margin; the surface with a broad shallow depression bordered posteriorly by the raised hind margin, which forms a transverse ridge in middle portion; each end of the ridge with a small cavity in front of it (Pl. XI., fig. 40).

Length of trunk 4.8 mm.

3. *PRODIDOMUS SCABER*, n. sp.

A ♀ and ♂ (No. 3916) from Prince Albert (*W. F. P.*, September, 1896).

♀ (*Type*). Pale yellowish, pubescent, the carapace with a fringe of long fine setæ on anterior margin.

Anterior margin of *carapace* evenly rounded in front, obtuse.

Ocular area, *chelicera*, and *coxae of pedipalps* as in *P. purpurascens*, n. sp.

Legs.—Fourth trochanter subequal to (or a trifle shorter than) the coxa; tibiæ of posterior legs with slender basal, mesial, and apical spines below, the posterior metatarsi with mesial and apical spines.

Vulva forming a broad, flat, brown plate, presenting in spirits the appearance of Pl. XI., fig. 41, and provided at its hind margin with a pair of twin tubercles, in front of which are a pair of tiny holes.

♂. Carapace and limbs rufescent. Upper surface of body and especially the limbs scabrous, with short, stout, rod-like hairs or spinules, the lower surface with finer hairs.

Posterior *legs* without mesial or basal spines on the segments.

Pedipalps.—Tibia appearing triangular from above, the outer distal angle produced and deeply bifid at apex. Palpal organ sharply aculeate at apex (Pl. XI., fig. 42).

Length of trunk ♀ $2\frac{3}{4}$, ♂ 3 mm.

EXPLANATION OF PLATES X. AND XI.

PLATE X.

FIG.		
1.	<i>Auximus schreineri</i> , n. sp.	Vulva.
2.	„ <i>silvaticus</i> , n. sp.	„
3.	„ <i>longipes</i> , n. sp.	„
4.	<i>Pseudauximus pallidus</i> , n. sp. . .	„
5.	<i>Stegodyphus canus</i> , n. sp.	„
6.	„ <i>tentoricola</i> , n. sp.	„
7.	<i>Adonea variegata</i> , n. sp.	„
8.	<i>Seothyra fasciata</i> , n. sp.	„
9.	<i>Dresserus angusticeps</i> , n. sp. ..	„
10.	„ <i>laticeps</i> , n. sp.	„
11.	<i>Scytodes montana</i> , n. sp.	„
12.	„ <i>lycosella</i> , n. sp.	„
13.	„ <i>triangulifera</i> , n. sp. ..	„
14.	„ <i>flagellata</i> , n. sp.	„
15.	„ „ „	Left palp of ♂ from outer side.
16.	„ <i>testudo</i> , n. sp.	Vulva.
17.	„ „ „	Left palpal organ of ♂ from outer side.
18.	„ <i>gooldi</i> , n. sp.	Vulva.
19.	„ <i>karrooica</i> , n. sp.	„
20.	„ <i>caffra</i> , n. sp.	„
21.	„ <i>cedri</i> , n. sp.	„
22.	„ <i>lanceolata</i> , n. sp.	Left palp of ♂; <i>a</i> , from side; <i>b</i> , from front.
23.	„ <i>elizabethæ</i> , n. sp.	Left palp of ♂ seen partly from outer side and partly from front.

PLATE XI.

24.	<i>Drynusa silvicola</i> , n. sp.	Under side of abdomen of ♀.
25.	„ „ „	Left palp of ♂ from upper side.
26.	„ <i>producta</i> , n. sp.	Epigastric area of ♀.
27.	<i>Ariadna karrooica</i> , n. sp.	Left palp of ♂ from outer side.
28.	<i>Caponia spiralis</i> , n. sp.	Palpal organ and tarsus of right pedipalp of ♂ from front.
29.	„ „ „	Right palpal organ of ♂ from below.
30.	„ <i>karrooica</i> , n. sp.	„ „ „
31.	„ <i>forficifera</i> , n. sp.	„ „ „
32.	„ <i>braunsi</i> , n. sp.	„ „ „
33.	„ <i>capensis</i> , n. sp.	„ „ „
34.	„ <i>hastifera</i> , n. sp.	„ „ „
35.	„ <i>simoni</i> , n. sp.	„ „ „
36.	<i>Diploglena capensis</i> , n. sp.	„ „ „
37.	„ „ „	Carapace.
38.	„ „ „	Anterior part of sternum and mouth parts.
39.	<i>Prodidomus capensis</i> , n. sp.	Vulva.
40.	„ <i>purpurascens</i> , n. sp.	„
41.	„ <i>scaber</i> , n. sp.	„
42.	„ „ „	Distal part of right pedipalp of ♂ from outer side.

