

VI.—*Descriptions of some New Species, and Characters of Three New Genera, of Araneidea from South Africa.*—By the Rev. OCTAVIUS PICKARD-CAMBRIDGE, M.A., F.R.S., &c.

(With Plates IX., X., XI., XII.)

THE spiders included in the following pages can only be considered a very scanty representation of the order *Araneidea* in the locality whence they hail. They are, however, of much interest in being, most of them if not all, good species, and not, I think, before described. Mr. W. F. Purcell, of the South African Museum, Cape Town, to whom I am indebted for these examples, tells me that he intends to take up this order seriously, and I will only say in addition to a strong commendation of this praiseworthy resolution, that I sincerely hope he will add copious illustrations to the descriptions and diagnoses he may give to the scientific world.

THERAPHOSIDÆ.

SUB-FAMILY **MIGINÆ.**

GEN. NOV. **CÆDMON.***

Moggridgea, Cambr.: ad partem. *M. abrahamii*, Cambr.

Migas, L. Koch-Sim. ad partem.

Closely allied to *Moggridgea*, but differs in the position of the eyes. These in *Cædmon* are (like those of *Moggridgea*) in two transverse rows, but the anterior row is very nearly straight, the slight curve, if any, having its convexity directed either forward or backward; the two rows are thus almost parallel, while in *Moggridgea* the convexity of the anterior row is very strongly directed backwards, the lateral eyes on either side (of the two rows) being in that genus also very widely separated. The laterals of the anterior row are larger than the central, and the type of *Moggridgea* is *M. dyeri*, Cambr., that of *Cædmon* is *M. abrahamii*, Cambr. Of neither species, so far as I know, has the male been described. M. Simon considered that *M. abrahamii* belonged to the genus

* Nom. propr.

Migas, L. Koch, but though its eye-position accords fairly well there is a strong and important difference in the form of the cephalothorax. This in *M. abrahamii* is as broad as long (or at any rate only slightly longer than broad) and well rounded on the sides, while in *Migas* it is considerably longer than broad, and its sides are getting on towards parallel.

The height of the clypeus is equal to half that of the facial space. The central eyes of the anterior row are rather larger than the laterals. The under sides of the metatarsi and tibiæ of the first and second pairs of legs are furnished with powerful spines. The tarsi of those pairs are very short, of an oval form in the males, tapering in the females. The superior terminal tarsal claws are armed either with 2 inferior teeth (♂) or a geminated tooth (♀), springing from a short but distinct claw-joint.

CÆDMON ABRAHAMII Cambr.

Moggridgea abrahamii Cambr.

P. Z. S., 1889, p. 41. Pl. II., fig. 3.

Hab. Natal, South Africa.

CÆDMON THORACICA, sp. n. (Pl. IX., fig. 1.)

Adult male, length very nearly $4\frac{1}{2}$ lines; length of cephalothorax 2 lines, breadth ditto.

Cephalothorax equal in length and breadth, rather flattened, and almost circular; close in front of the thoracic indentation (which is curved, the convexity directed forwards) is a strongish rounded eminence. The surface of the cephalothorax is coarsely granulose; its colour is deep brown, and the height of the clypeus equals half that of the facial space.

Eyes of anterior row equally separated by a space rather exceeding the diameter of one of the centrals. The fore-laterals are largest of the eight. The convexity of the curve of this row, looked at vertically from above and behind, is very slightly directed forwards. Eyes of the posterior row form a curve in same direction, but rather stronger than that of the anterior. The two eyes at each end of the posterior row are very near to each other but not quite contiguous. Each lateral eye of the posterior row is very little more than its own diameter's distance from the anterior lateral on the same side. In front of and between the fore-central eyes is a vertical spine with a much smaller one on each side of it.

Legs not greatly different in length—4, 1, 2, 3, tolerably strong. Colour deep brown, especially the femora and tibiae, which are nearly black. Tarsi very short, oval, and of a yellow-brown hue. Spines strong beneath the tibiae and metatarsi of the first and second pairs, abruptly bent or somewhat hooked at their extremities. They do not appear to be quite regular or symmetrical. *Metatarsi* of the first pair have 2 rows of spines; *tibiae* 3 rows varying in number in each row, 2–7. The spines beneath the *tibiae* of the second pair are neither so numerous nor so strong as on those of the first pair. The *genuae* of the first and second pairs have 4 spines at their fore end. It is impossible to say, in absence of a series, whether the number and position of the above spines may or may not eventually afford a good specific distinguishing character.

Palpi long; radial joint almost double the length of the cubital, very tumid along the under side, but pinched in or compressed there rather abruptly near its fore extremity, beneath which it is furnished with long bristly hairs. Digital joint small, cleft at its anterior extremity; palpal bulb rather large, somewhat flattened-globular, drawn out from near the middle into a tapering black spur as long as the greatest width of the palpal bulb. The colour of the bulb is pale yellow-brown, encircled with a broad dark yellow-brown zonal band margined on each side with black.

Maxillae rather long, cylindrical, slightly tapering, double as long as broad, divergent.

Labium rather broader than long at base, narrowing to the apex, which is rounded. Near the apex are 4–5 short tapering not very strong bristles, with some rather longer and shorter hairs.

Sternum much longer than broad, narrowing gradually to the fore extremity, which is the same width as the base of the labium, furnished with a few slender, tapering, bristly hairs.

Abdomen oval; broadest behind, of a dark purplish brown colour, clothed pretty thickly with short, slightly curved, obtuse spiniform bristles.

Hab. Under stones.

Loc. Simon's Town (Cape Peninsula), Cape of Good Hope.

CÆDMON AFFINIS, sp. n. (Pl. IX., fig. 2.)

Adult male, length, 5 lines; length of cephalothorax 2 lines; breadth $1\frac{3}{4}$ lines.

This spider is very nearly allied to *C. thoracica*; its cephalothorax, however, is longer than broad, and is thus of a more oblong and less

circular form, and there is scarcely any elevation in front of the thoracic indentation. The profile line of the cephalothorax forms an almost even curve in front of the thoracic indentation; the eyes occupy a rather broader transverse area, but their general position and relative size are very similar to those of *C. thoracica*. The legs are not quite so strong; the metatarsi of the two anterior pairs are longer, the tarsi narrower and more cylindrical: those of *C. thoracica* being broader and of an oval form, and the metatarsi and tibiae equal in length, while in the present species the metatarsi are longer than the tibiae. In the present species also the colour of the tarsi and metatarsi of the first two pairs is a clear yellow, and the spines beneath the tibiae and metatarsi differ a little in number and strength. The vertical spine in front of the fore-central eyes is closer to them than in *C. thoracica*, and the spine-like bristles on the abdomen are tapering in form and less coarse. The bristles at the apex of the labium are several of them dentiform.

Hab. Lion's Hill. "Dug out of a deep tubular hole in the ground with a trap-door cover."

CÆDMON CONGENER, sp. n. (Pl. IX. fig. 3.)

Adult male, length $3\frac{1}{3}$ lines.

It is possible that this spider may be only a small example of the last species, *C. affinis*. It agrees with that spider in the cephalothorax being longer than broad, and it has no elevation in front of the thoracic indentation. The eye-area, however, appears to be shorter in its transverse measurement and broader from back to front, and the surface granulations, from the eye area to the hinder extremity, are almost obsolete along a broad tapering central band; and the space between the lateral pair of eyes on each side is much larger than in either of the foregoing species. The colour of the legs is a uniform dull yellow-brown, excepting the femora, which are of a darker hue. At the apex of the labium are some longer tapering bristly hairs, and behind them several small short dentiform spines.

The armature of the two first pairs of legs is very like that of the other species, the tarsi are more like those of *C. thoracica*, and the form and structure of the palpi do not appear to present any reliable difference. The abdomen is covered pretty thickly with short curved strongish mostly slightly tapering spine-like hairs.

I have thought it best, at any rate for the present, to record this as a distinct species, though a longer series of the group can alone determine whether it may not belong to a species in which there is a

considerable variety in the details of some portions of structure in different individuals.

A single example under stones. "Lion's Hill," near Cape Town.

CÆDMON DUBIA, ? sp. n. (Pl. IX., fig. 4.)

Adult female, length 6 lines.

Length of cephalothorax $2\frac{1}{2}$ lines; breadth $2\frac{1}{3}$ lines.

Allowing for some obvious sexual difference, this example might be the female of either of the three foregoing spiders. The eye-area is most similar to that of *C. congener*, and the cephalothorax in its general form (longer than broad) agrees with both that and *C. affinis*. There is scarcely any elevation in front of the thoracic indentation. Its surface is devoid of granulations, and the hairs on the abdomen are all finer and more tapering. The broad but strongly tapering form of the tibial, metatarsal, and tarsal joints of the first two pairs of legs, with their armature, is certainly only a sexual character. The maxillæ and labium are pretty thickly covered with short dentiform spines, which is also probably a sexual character. The sternum has two roundish bare spots in a transverse line across the middle.

The general colour is a uniform yellow-brown, that of the abdomen being dull purplish brown, closely mottled (in spirit of wine), with a pale hue.

A single example. Muizenberg (Cape Peninsula).

Another example of the female sex, from "Lion's Hill," under stones, length $4\frac{1}{2}$ lines, is either a small, or immature, female of *C. dubia*.

A nest of some spider of this group from under a stone, Muizenberg, accompanied the above spiders. Its length is $9\frac{1}{2}$ lines, of an almost cylindrical bag-form, rounded at the bottom. Greatest width $4\frac{1}{2}$ lines. Closed at the top with a nearly round, thin, wafer-form, hinged lid a little over 3 lines in diameter, covered with granulations of dark sand-grains, &c.

FAMILY ZODARIIDÆ.

GENUS DIORES, Sim.

DIORES SIMONII, sp. n. (Pl. IX., fig. 5.)

Adult male, length $1\frac{2}{3}$ lines ($3\frac{1}{2}$ mm.).

Adult female, 2 lines.

Cephalothorax oval, slightly rounded before, moderately convex above, profile line forming a slight, even curve; lateral marginal compression at caput slight. Colour yellow, with the oblique indentation on each side of the caput suffused with dusky brown. The height of the clypeus is about half that of the facial space.

Eyes in two transverse curved rows of which the convexity of the curves is directed backwards (the curve of the posterior row strongest). The fore-centrals are largest, the rest much smaller and about equal in size. The quadrilateral figure formed by the four central eyes is very nearly quadrate, being a little wider than long. The interval between the fore-centrals is equal to a diameter, that between the hind-centrals is equal to two diameters, and the interval between each of the hind-centrals and the hind-lateral next to it is a diameter. The eyes of each lateral pair are separated by a distinct, but narrow, interval.

Legs rather long, slender—4, 1, 2, 3. Colour yellow, like that of the cephalothorax, in some examples (probably) slightly suffused with dusky brownish; furnished with a few small, inconspicuous spines.

Palpi short, similar to the legs in colour. Cubital and radial joints very short, about equal in length, the former bent and clavate, the latter with a short obtuse prominence, near the outer side of the under part furnished with a few bristly hairs; the outer side is produced into a long, bifid, dark brown apophysis, the two portions of which are parallel, of equal length, tapering and sharp-pointed. The digital joint is large, oval, pointed in front, with a terminal, simple, slightly curved claw. Palpal organs well developed, with corneous processes and spines.

Falces moderately long, strong, straight, vertical, and conical; similar to the cephalothorax in colour; falx very small.

Maxillæ moderate in length and strength, rounded at their extremity, with an oblique indentation in front and inclined a good deal towards the labium.

Labium broader than high, rounded at the apex.

Sternum broad, shield-shape, the hinder extremity with a small, abrupt terminating point. This part, with the maxillæ and labium, is similar to the legs in colour.

Abdomen oval, blackish above, yellow underneath and on the sides, tolerably convex above; the larger part of the upper side forwards covered with a coriaceous plate of a dark shining brown hue. Inferior spinners large, superior very small and inconspicuous.

The female resembles the male in colours and general appearance, but the abdomen wants the coriaceous covering on the upper side. The genital aperture is large and of very characteristic form. The *palpi* have some spines on the inner side of the radial and digital joints, and the latter ends with a longish, simple, slightly curved claw.

Hab. Cape Peninsula.

DIORES COGNATA, sp. n. (Pl. IX., fig. 6.)

In size, colours, and general characters this species resembles the foregoing, but the relative position of the eyes of the hinder row is different, as also is the form and structure of the *palpi*.

The *eyes* of the hind-central pair are not much further apart than each is from the hind-lateral next to it; the fore side of the central quadrangle is a little shorter than the hinder side, and the difference in the form of the radial apophysis, as well as of the structure of the palpal organs, though quite distinct, can only be satisfactorily conveyed by drawings from a similar point of view.

Hab. Cape Peninsula.

This species is very nearly allied to *D. simonii*, and was contained among the examples received of that species as though identical.

FAMILY THERIDIIDÆ.

GENUS ENOPLOGNATHA, Sim.

ENOPLOGNATHA MOLESTA, sp. n. (Pl. X., fig. 1.)

From a careful examination and comparison of nine males and twenty females sent to me by Mr. Purcell from five different localities at the Cape of Good Hope, I have concluded that they are all of one species, the individuals of which vary exceedingly in size, and in some points also of structure. Taking as the type of the following description a male example in which the characters are shown in the most highly developed form, I shall subsequently remark upon the variations in other examples.

Adult male (typical example), length 3 lines; adult female, length 4 lines. (With regard to mere size, I may note here that the variation in this respect is from a maximum in the male of 3 lines to a minimum of $1\frac{1}{2}$, and in the female of from 4 lines to 2.)

The colour of the cephalothorax and legs is a pale brownish yellow, with a slight tinge of darker brown at the joints. The legs

are 1, 4, 2, 3, furnished with hairs only, excepting the metatarsi of the first and second pairs, along the under sides of which are some short, obtuse spines mostly ending with a short, fine bristle.

The *eyes* are small and subequal in size; they are in two transverse rows. The interval between those of the hind-central pair is slightly over a diameter, or about half that between each and the hind-lateral eye next to it. The four central eyes form very nearly a square. Those of each lateral pair are contiguous to each other, and placed obliquely on a small tubercle. The fore-central pair are seated on a small, transverse, tubercular prominence. The height of the clypeus is half that of the facial space.

The *palpi* are similar in colour to the legs, slender, furnished with hairs only. The cubital joint is curved, slightly claviform, the radial enlarges slightly and gradually to its anterior extremity and is nearly double the length of the cubital. The digital joint is small oval; the palpal organs are compact and not very complex in structure.

The *falces* are yellow-brown, very strong, divergent, equal in length to the cephalothorax, directed forwards, of a somewhat tapering form, largest near the middle and rather prominent on the upper side, which is furnished with minute denticles each ending with a small bristle; a group of the same also occupy a space beneath the base of each falx. About the middle of the under side of the falx is a very strong, but tapering, sharp-pointed tooth directed forwards, its point being level with the articulation of the fang. In front of this large tooth are two others very much smaller, nearly but not quite in a straight longitudinal line; the anterior is the strongest, nearly triangular, and not far from the articulation of the fang, the other smaller and of a somewhat bent form, like that of the large one before mentioned. Towards the base, in front, of the large tooth is a minute denticle. The fang is long, strong, and curved; when at rest it is directed backwards in the same line as the falx; it is a little protuberant from near the base to about the middle.

The *maxillæ*, *labium*, and *sternum* are suffused with a darker, dull, yellow-brown hue.

Abdomen oval, of a dull chalky-white colour, the whole upper side occupied by a leaf-shaped marking outlined by a more or less continuous black angulated line; the hinder extremity of the marking truncated in an incurved form. Along the middle of this marking is a longitudinal black central line crossed anteriorly by another. The spinners are on a black patch, above which on each side are some

short broken black lines. The under side of the abdomen is whitish, divided longitudinally along the middle with a black line.

Found under stones.

The female resembles the male in colours and markings. Her falces are much shorter and smaller, though still powerful, nearly perpendicular and not divergent; their colour is a rich dark reddish brown, and their anterior side is pretty thickly granulose, or furnished with small denticles. In the female the legs generally show traces of a faint dull brownish annulation, and the colours are generally darker than those of the male, with often a more or less considerable diffusion and obliteration of the pattern on the abdomen. The genital aperture, though characteristic, is not apparently so regular and symmetrical in its form as in numbers of other spiders, and a considerable similarity will probably be found in different species of this genus.

The chief variations, besides those of size, which I have noted are in the male. These occur in the relative position of the eyes; in some examples the hind-centrals are nearer together than in others. There is also a difference in the length and strength of the falces and of their armature. The relative length also of the cubital and radial joints of the palpi differ; in some examples the radial is nearly double the length of the cubital, in others it only slightly exceeds it. The short blunt spines also beneath the metatarsi of the first pair of legs vary in number and strength.

The examples received were from the Cape Peninsula, Nieuwoudtville, Bokkeveld Mountains, Calvinia Division, Ceres Village, and Clanwilliam Village, Cape Colony.

ENOPLIGNATHA INORNATA, sp. n. (Pl. X., fig. 2.)

Adult female length rather over 1 and $\frac{1}{2}$ line. The whole of the fore part (the maxillæ, labium, and sternum being of a darker yellow-brown hue) is a pale dull yellow-brown, and the abdomen is pale dull whitish, with a cruciform dull blackish longitudinal central stripe on the fore-half of the upper side, and a curved bordering stripe at the fore extremity, followed on each side towards the hinder end by slightly oblique similarly coloured stripes; in some examples these oblique stripes are represented by an almost isolated spot at the extremity of the stripe; in such examples the characteristic leaf-like pattern on the abdomen of the foregoing species, and others known to me, is very visible. The eyes in this species differ from those of *E. molesta* in those of the hinder row being much more nearly

equally separated from each other, the intervals being scarcely more than a diameter interval apart, and the length of the line formed by the fore-central pair of eyes being rather less than that of the hind-central pair. The genital aperture differs a little in form from that of *E. molesta*, but bears a general resemblance to it.

Examples received from "Ceres Village" and Clanwilliam Village, Cape Town.

GENUS LATRODECTUS.

LATRODECTUS CONCINNUS, sp. n. (Pl. X., fig. 4 ♂ ; Pl. X., fig. 3 ♀ .)

This spider is in its markings very much like *L. geometricus*, C. L. Koch, but on comparing typical specimens (in my possession) of that species figured and described, from Minas Geraes. S. Amer.), by the late Count Keyserling, in "Spinnen Amerikas," p. 148, pl. vii. fig. 92, it appears to be quite distinct. It is very much larger, and the palpi of the male as well as the genital aperture of the female are different.

Adult male length rather over $1\frac{1}{2}$ lines; adult female from 4 to 5 lines.

(The measurements of *L. geometricus*, C. L. Koch-Keys., are ♂ $1\frac{1}{4}$ lines; ♀ from 2 to 3 lines.)

In the male the colour of the cephalothorax is yellow-brown with a rather diffused central longitudinal and lateral marginal stripes on each side of a darker hue; the legs are pale yellowish with a brown tinge at the fore-extremities of the joints.

The *abdomen* is oval, of a dark brownish grey colour, along the central line are three round-oval, white spots margined with black, the hinder spot produced backwards into a stripe which reaches the spinners; on each side of the central stripe and spots is a longitudinal row of four round, black spots, each of which is included in and close to the beginning of a long, nearly vertical lateral tapering white stripe edged with black; these oblique stripes are parallel to each other and end at the margin of the under side of the abdomen. This last is black or blackish, and has a large dicebox-shaped white central marking, and the spinners are encircled by several white spots.

The *palpi* are short, the radial joint very short, spreading on its outer side, and with a marginal row of bristly hairs; the digital joint is oval, rather large, the palpal organs have a long, closely coiled filiform black spine at their extremity, and one large separated coil running completely round the base of the digital joint and palpal

organs, one or two small prominent sinuous processes near their outer extremity issuing from behind the coiled spine.

The *eyes* of the hinder row in the male form a very nearly straight line (its curve, if any, has its convexity directed forwards), and are equally separated by an eye's diameter. The anterior row is curved, the convexity of the curve also directed forwards. The four central eyes form a large square; the interval between those of each lateral pair is less than an eye's diameter, and there is no more than half that space between the hind and fore-central pairs of eyes. This last pair are seated on a strong tubercular transverse oval prominence.

The *sternum* is dark brown, bisected longitudinally by a pale brownish yellow line.

The *female* has the cephalothorax unicolorous, the curve of the hinder row of eyes is also stronger than in the male, as also is that of the anterior row. The eyes of the central pair are nearer to each other than each is to the hind-lateral on its side, and the interval between those of each lateral pair is less than that between the fore and hind-central pairs. The abdomen is very large, subglobular-oval. The markings on it are similar to those in the male, excepting that the round form of the white spots is sometimes subangular, and the colours of the spots and stripes interchange with the ground colour, thus the white markings with black edging becomes dark, sometimes black, with white edges, and sometimes the ground is grey-white, with black edges to the white markings. The genital aperture is of characteristic form, though bearing a general resemblance to some other species of the genus.

It is to be noted that in this species, as well as in the South American examples above mentioned as typical of *L. geometricus*, the two rows of eyes are not divergent as given in the characterisation of this genus by authors, and in males this is more marked than in females, and so the interval between the eyes of each lateral pair is not greater or even as great as that between the fore- and hind-central eyes. Whether this might not justify the species in which this occurs being separated into another genus would depend on how far this difference from the usual generic character might show sufficient and uniform persistence.

Females of the above were received from Cape Town, where it appears to be very common, and males from Devil's Mountain (Cape Town Slope).*

* Since writing the above I have been able to refer to a paper lately published on the genus *Latrodectus*, P.Z.S., 1902, p. 247. The author there gives as a locality of *L. geometricus*, C. L. Koch, Cape Colony and Table Mountain. Whether

LATRODECTUS INDISTINCTUS, sp. n. (Pl. XI., fig. 1.)

Adult female length 5 to $5\frac{1}{2}$ lines.

The whole of the forepart of this spider is of a dark dull yellow-brown, the cephalothorax with some scratchy converging darker lines; the *abdomen* has a dull, sooty-brown hue with indistinct dull whitish markings on the upper side, but with no distinct pattern traceable. The under side of the abdomen is marked by two indistinct transverse whitish stripes, and between and at the base of the inferior pair of spinners is a distinct colulus, pointed-oval at its extremity. The genital aperture bears a general resemblance to that of others of this genus, but is still of a characteristic form. The hairs on the abdomen are of a short coarse stubby nature.

The *eyes* of the hind-central pair are much nearer together than to the hind-laterals. The posterior row has its curve directed forwards, while that of the anterior row is directed very slightly backwards, the interval between the eyes of each lateral pair being distinctly greater than that between the fore- and hind-central pairs; and the anterior side of the central square is rather shorter than the rest. The lateral eyes are seated on strong, prominent, and divergent tubercles.

Hab. Mamre Mission Station, Malmesbury Division, Cape Peninsula.

TEUTANA LEPIDA, sp. n. (Pl. XI., fig. 2.)

Adult male, length 2 to $3\frac{1}{2}$ lines.

Adult female, length 3 to nearly 5 lines.

Adult Male.—*Cephalothorax* elongate-oval, broadest in the middle, rather pointed at each end, slightly produced behind in a rounded cylindrical form. Colour deep rich blackish red-brown, the surface thickly and coarsely granulose, the caput is a little elevated before and the ocular area prominent, the thoracic area also is a little gibbous close behind the normal indentation. *Eyes* subequal, tolerably closely grouped together, those of the posterior row form a straight transverse line; the interval between the hind-central pair being

the spiders thus allocated are identical or not with Koch's species from South America I cannot of course say. One would hesitate to pronounce as identical, spiders from these two widely distant and distinct regions, without being able to compare types or typical examples of each. I cannot say whether the spiders referred to *l.c. supra* are or are not identical with those I have described here as a new species, but seeing that Keyserling's examples in my possession, described by him as *L. geometricus*, C. L. Koch, are South American, and are certainly distinct from the very common Cape Town species, though undoubtedly resembling it closely in pattern and variety of colouring, one may well suspect that the Cape Colony species alluded to may not be *L. geometricus*, C. L.

slightly less than that which separates each from the hind-lateral eye next to it. The anterior row is curved, the convexity of the curve directed backwards. The fore-central eyes are smaller than the fore-laterals, and the height of the clypeus which has its lower margin prominent exceeds half that of the facial space.

Legs long, 1, 4, 2, 3 furnished with fine short hairs only, colour brownish yellow, the genuæ and the extremities of the tibiæ and femora strongly suffused with dark brown.

Palpi similar to the legs in colour, moderately long; cubital and radial joints of equal length, the former bent, the latter gradually enlarged to the extremity; digital joint rather large, oval, as long as the cubital and radial together, palpal organs complex, compact, with a strong prominent somewhat twisted corneous process near their extremity on the outer side, and close by is also a pale prominent process.

Sternum similar in colour to the cephalothorax. Covered thickly with coarse granulations.

Abdomen oval; at its fore extremity is a socket with a corneous rim against which the produced hinder extremity of the cephalothorax works. The colour of the abdomen is black or black-brown, marked by white lines at the fore-end on the upper side with a large, somewhat exaggerated T-shaped marking, followed by a central quadrate figure formed by four white spots, the posterior extremity of the square being shorter than the anterior; between this and the spinners there are one or two other small white spots or markings more or less visible, and one or two lateral white vertical lines, the most conspicuous being one which runs from within the central quadrate figure nearly to the under side of the abdomen. On the under side is a central reddish and one or two other white spots. The spiracular plates are included in a large continuous, rather prominent coriaceous, or rather corneous-looking plate of a somewhat shining reddish brown colour.

In the female the colours do not appear to be so vivid nor the markings on the abdomen so distinct as those in the male; in some cases they would probably be almost obsolete. Mr. Purcell remarks that in all examples the markings (♂, ♀) are white except a red patch on the under side of the abdomen. This patch is large in some cases in the female, but seems to vary much. The form of the genital aperture is distinct and characteristic.

An abundant species, known as the "knoppies spider," and its bite is dreaded by the natives.

Hab. Cape Peninsula, "under stones everywhere."

TEUTANA CONNEXA, sp. n. (Pl. XI., fig. 3.)

Adult female, length 5 lines.

Among examples of *T. lepida* there was a female of a nearly allied but quite distinct species. In general colouring and appearance the two seem much alike, but the markings on the upper side of the abdomen in the present species consist only of a curved whitish stripe around the anterior portion, followed, towards the middle, by two whitish spots in the median line, the fore one of which is the largest and of a subtriangular form. The lower part of the sides is marked by two largish suffused white patches, and the middle of the under side has a small central pale spot, which in life may possibly be red. The form of the genital aperture differs from that of *T. lepida*.

This spider appears to be nearly allied to *Teutana grossa*, C. L. Koch, of Europe.

Cape Peninsula, under stones.

FAMILY THERIDIIDÆ.

GEN. NOV. MOERO.

Cephalothorax short, broad-oval, truncate in front, a little longer than broad; lateral marginal impressions at caput slight, tolerably convex above; profile line forms an even curve, sloping downwards from its highest point to and with the ocular region.

Eyes much as in *Theridion*, but occupying the whole of the width of the caput; of moderate size; sub-equal; the central quadrangle* longer than broad; the fore-centrals have their visual axis directed pretty straight forwards; all pearly white excepting the fore-centrals; the anterior row has its curve directed forwards, the posterior backwards.

Legs short, slender, furnished with hairs and bristles; a long, slender spine on the femoral joint and two on the tibiæ of the first and second pairs; relative length 1, 4, 2, 3.

Palpi (female) devoid of terminal claw.

Maxillæ strong at base, moderately long, tapering at their extremities and greatly inclined over the labium.

Labium broader than high; somewhat subtriangular and pointed at the apex.

* In the male the anterior side appears to be slightly shorter than the posterior, while in the female it is slightly longer; and in the male the length of the quadrangle seems to be slightly shorter than in the female.

Sternum large, broader than long, very broadly truncate at its hinder extremity in an incurved line.

Abdomen large; globular and much projected over the thorax; spinners in a short circular sheath-like prominence.

MOERO QUADRIMACULATA, sp. n. (Pl. XI., fig. 4.)

Adult male, length rather less than 1 line.

Female adult, 1 line.

Adult male *Cephalothorax* orange-yellow; height of clypeus a little more than half that of the facial space.

Central eyes of posterior row divided by a diameter's interval and nearer to each other than to the hind laterals; fore-centrals on a strong prominence; those also of each of the lateral pairs are contiguous on a prominence.

Legs yellow-brown except the femora, which are orange-yellow.

Palpi (♂) short, radial and cubital joints very short; equal in length, the former a little obtusely produced in front; digital joint large, short, oblong-oval, with a strong, somewhat quadrate prominence on the outer side.

Palpal organs highly developed, complex, compact, encircled with a closely fitting black filiform spine.

Falces rather long; moderate in length and strength, and a little divergent at their extremities; some small teeth along the inner margin, one being much longer than the rest; colour orange-yellow, slightly suffused with yellow-brown.

Maxillæ orange-yellow. *Labium* yellow-brown, sternum orange-yellow, convex and slightly granulose or roughened, and furnished with a few prominent bristly hairs.

Abdomen pale, whitish yellow, covered very thickly with coarse erect bristly hairs, and marked towards the hinder part of the upper side with four conspicuous black spots in a large square.

The *female* resembles the male in general characters, colours, and markings; the genital aperture is of a very characteristic and distinctive form.

Hab. Platteklip Ravine, on the slopes of Table Mountain near Cape Town.

THERIDION DELICATUM, sp. n. (Pl. XI., fig. 5.)

Adult female, length $1\frac{2}{3}$ lines.

Cephalothorax pale yellowish white, with converging yellow-brown stripes, those on the thorax not reaching the margins.

Eyes in normal position, very nearly equal; all pearly white, on black spots; the convexity of the slight curve of the posterior row directed outwards, that of the anterior forwards. Those of the posterior row equally separated by more than a diameter; the central quadrangle forms a square; a few longish bristles on the caput directed forwards; of these the two longest are in a transverse line at the middle of the central quadrangle. The height of the clypeus is two-thirds of the facial space.

Legs moderately long, 1, 4, 2, 3 slender, furnished with hairs and slender bristles, a very few almost spiniform; colour like that of the cephalothorax, the femora and tibiæ of the fourth pair suffused with dull brown, as also less strongly those of the other legs.

Falces moderately long and strong, normal; these with the *Maxillæ*, *Labium*, and *Sternum* (which last is broadly and somewhat roundly truncated at its hinder extremity) are pale yellow.

Abdomen large, almost globular; projecting much over the cephalothorax; of a dull orange-yellow colour, marked faintly with a white longitudinal central line from which two or three slightly oblique lateral ones issue on each side; the sides also have two or three similar oblique lines, and one encircles the fore extremity on the upper side. The genital aperture is of very characteristic form. The lines on the abdomen are formed by minute white spots. It is possible that other examples, when found, will exhibit some modification in colours and markings. In that case the form of the genital aperture will become all important.

Hab. Constantia Flats, Cape Peninsula.

Theridion dedux, sp. n. (Pl. XII., fig. 1.)

Adult male, length $1\frac{1}{3}$ lines.

Adult female, $1\frac{1}{2}$ to $1\frac{3}{4}$ lines.

Cephalothorax pale yellow, marked rather diffusely and indistinctly with yellow-brown along the converging lines of the normal indentations and the fore part of the caput. The height of the clypeus is nearly two-thirds of the facial space.

Eyes normal; sub-equal, fore-centrals smallest; all pearly-greyish white; the slight curve of the posterior row directed backwards, that of the anterior row forwards. The two rows are very nearly of equal length, anterior slightly shortest. The interval between the hind-centrals a little larger than that between each and the hind-lateral next to it. The fore-centrals are smallest. The central quadrangle is a square with its fore side rather the shortest. The prominence

bearing the fore-central eyes is moderately strong, those of the lateral pairs are strong.

Legs tolerably long, 1, 4, 2, 3 furnished with hairs and bristles, of which there is a patch, more thickly furnished than elsewhere, inside the fore-extremity of the femora of the third pair; colour dull yellow-brown.

Palpi short; similar in colour to the cephalothorax; cubital and radial joints very short; the former strongly claviform and furnished with several long, strong bristles, the latter shortest and produced obtusely at its extremity on the outer side and furnished with long bristles. Digital joint large, oval; palpal organs well developed, but simple, divided transversely into two large lobes, anterior and posterior, with a short, pointed spiny process beneath and from within their fore-extremity, but not projecting beyond the point of the digital joint.

Falces moderate in length and strength; colour like that of the cephalothorax, tinged with yellow-brown.

Maxillæ and *labium* yellow, slightly suffused with pale yellow-brown.

Sternum convex, yellow, broadly and squarely truncate at the hinder extremity, and furnished with a few long bristly hairs.

Abdomen oval, pale whitish, thinly covered with long bristles. There was no pattern visible above, but two or three very indistinct oblique dusky lines on the sides.

The *female* has the legs and palpi of a darker dusky yellow-brown than the male. The abdomen is large, globular, and of a dull mouse-brown colour with some indistinct oblique yellow-brownish lines. The genital aperture and process are large, prominent, and very distinctively characteristic. Probably a series of examples would show some variation in colour, and perhaps some other markings on the abdomen in both sexes.

Hab. Durban, Natal, South Africa.

Theridion Purcellii, sp. n. (Pl. XII., fig. 2.)

Adult male, length $1\frac{1}{2}$ lines.

Adult female, very nearly 2 lines.

Excepting its much larger size, this pretty species is in general appearance, colours, and markings, very like the English species *Theridion familiare* Cambr. The structure of the palpi is, however, very different.

Adult male.—*Cephalothorax* yellow, with a thin, central longitudinal brown line, sometimes enlarged behind the eyes.

Eyes small, subequal, those of the posterior row nearly equally separated, the centrals rather nearer to each other than to the laterals, the curve of the row very slight, and its convexity directed backwards. The central quadrangle is nearly square, its fore-side a little the longest; the height of the clypeus exceeds half that of the facial space. The fore-central eyes are largest, and seated on a prominence. A few spiniform tapering bristles on the caput are directed forwards, the longest being exactly in the middle of the central quadrangle of eyes.

Legs moderately long, 1, 4, 2, 3 furnished with longish bristly hairs of varied strength. Colour yellow, faintly annulated with brownish.

Palpi short, radial joint excessively so, similar in colour to the legs; cubital joint with several long curved bristles in front; digital joint very large, oblong-oval, and the palpal organs rather simple, with an obtuse prominence at their extremity on the outer side—a strong, black, tapering spine encircles the hinder portion, and another is also curved in a circular form beneath the fore extremity.

Maxillæ, labium, and sternum yellow, tinged with brown.

Abdomen subglobular, furnished thinly with bristly hairs. Ground colour dull luteous yellowish, with a longitudinal central strongly and sharply dentated band, obtuse in front, enlarging to near the middle and thence tapering to the spinners, this band is more or less marked with white spots, and the dentations are formed on each side by a distinct white lateral line more or less strongly margined outside by a black stripe; the sides are marked obliquely, but not very regularly, with black and white. The under side has the fore-part (including the plates of the spiracles) prominent, of a deep black-brown, with a central white patch, and the spinners are on a large blackish area; nearly in front of the spinners is a conspicuous long transverse curved fold in the epidermis, in which probably are concealed entrances to spiracular organs.

The *female* resembles the male in colour and markings, but the abdomen is more globular, and its central dentated band better and more sharply defined, though with less black on its edges. A series of examples would, however, probably show variations in these respects.

Hab. Salt River Flats, near Cape Town.

LINYPHIA, Latr.

LINYPHIA INTERPOLIS, sp. n. (Pl. XII., fig. 3.)

Adult male, length 2 lines.

Adult female, length $1\frac{1}{2}$ to rather over 2 lines.

Male.—*Cephalothorax* rather narrow, oblong-oval, rounded in front, lateral marginal construction at the caput slight. Profile line very slightly curved, with a slight dip at the hinder margin of caput. Clypeus half the height of the facial space, and its lower margin prominent. Colour, yellow-brown.

Eyes on tubercular prominences; those of the posterior row are about equally separated, and form a curved line whose convexity is directed forwards. The two centrals of this row are apparently largest of the eight, and are apparently one diameter and a half from each other. The anterior row, slightly shortest, is very nearly straight, its convexity, if any, directed backwards, and its eyes are of nearly equal size, separated by a diameter's interval, or slightly over, from each other, but by more than double that interval from the fore-laterals. The four central eyes form a square, whose anterior side is the shortest.

Legs long, slender, 1, 4, 2, 3 yellow-brown, rather paler than the cephalothorax and tinged with greenish olive. The femora in one example striped longitudinally, but not conspicuously, with dark brown. Spines normal.

Falces long, moderately strong, divergent, directed backwards; similar in colour to the cephalothorax.

Palpi short, similar to the legs in colour, cubital and radial joints short, the former shortest, both clavate; the digital joint rather large, long-oval; palpal organs complex, with a long, slender, filiform spine on their outer side, forming a very large, prominent circle.

Abdomen elongate, strongly compressed transversely past the middle on the upper side and obtuse at the hinder extremity. Colour black, with a conspicuous white spot on each side close to the fore extremity.

The *female* resembles the male in general colours and markings, but the abdomen has a lateral marginal line of white lines and spots, and others along the median line, but probably often either obsolete or variable. The abdomen is also wanting in the constriction characteristic of the male. The genital aperture is small, inconspicuous, but characteristic.

This spider is nearly allied to *Linyphia pusilla*, Sund. (of Europe)

resembling it closely in the long spine connected with the palpal organs.

Hab. Ramskop (Clanwilliam Division), Cape Colony.

SUB-FAMILY ERIGONINI.

GEN. LUCRINUS.

Cephalothorax longer than broad, obtuse before, broad and somewhat excavate behind in profile line, considerably elevated at the junction of caput and thorax, lateral marginal impressions at the caput well marked; height of clypeus rather exceeds half the facial space.

Eyes rather closely grouped together, those of the posterior row are in a straight transverse line, equally separated. The convexity of the curve of the anterior line directed forwards. The fore-centrals are much smallest, the rest subequal, the fore-laterals perhaps the largest. The central quadrangle nearly a square, but narrowest in front.

Legs moderately long, slender, subequal in length, 4, 1, 2, 3 furnished with hairs only.

Falces normal.

Maxillæ short, and inclined towards the labium.

Labium apparently very short, broader than high, and rounded at the apex.

Sternum about equal in length and breadth, convex, rather round, obtuse at the posterior extremity.

LUCRINUS PUTUS, sp. n. (Pl. XII., fig. 4.)

Adult female, length three-fourths of a line.

Cephalothorax, *falces*, *maxillæ*, *labium*, and *sternum* dark yellow-brown; legs and palpi paler; *abdomen* black.

This little spider appears to be nearly allied to *Gongylidiellum* and other European forms, but I cannot fit it in satisfactorily to any of our genera, and have therefore, though with some hesitation, based a new genus upon it.

Hab. Village of Clanwilliam, Cape Colony.

LIST OF SPIDERS DESCRIBED.

FAMILY THERAPHOSIDÆ.

CÆDMON THORACICA.....	p. 144.	Pl. IX., fig. 1
„ AFFINIS	p. 145.	„ „ 2
„ CONGENER	p. 146.	„ „ 3
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FAMILY ZODARIIDÆ.

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FAMILY THERIDIIDÆ.

ENOPILOGNATHA MOLESTA	p. 149.	Pl. X., fig. 1
„ INORNATA	p. 151.	„ „ 2
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„ INDISTINCTUS	p. 154.	Pl. XI., fig. 1
TEUTANA LEPIDA	p. 154.	„ „ 2
„ CONNEXA	p. 156.	„ „ 3
MOERO QUADRIMACULATA	p. 157.	„ „ 4
THERIDION DELICATUM	p. 157.	„ „ 5
„ DEDUX	p. 158.	Pl. XII., fig. 1
„ PURCELLII	p. 159.	„ „ 2
LINYPHIA INTERPOLIS	p. 161.	„ „ 3
LUCRINUS PUTUS	p. 162.	„ „ 4

EXPLANATION OF PLATES.

PLATE IX.

FIG.

1. *Cædmon thoracica*, 1a, spider in profile; 1b, eyes from above and behind; 1c and 1d, palpus in two positions.
2. *Cædmon affinis*, spider in profile; 2a, eyes from above and behind; 2b, 2c, palpus in two positions.
3. *Cædmon congener*, spider in profile; 3a, eyes from above and behind; 3b, 3c, palpus in two positions.
4. *Cædmon dubia*, 4a, spider in profile; 4b, eyes from above and behind.
5. *Diores Simonii*, 5a, spider in profile; 5b, eyes from above and behind; 5c, 5d, palpus in two positions.
6. *Diores cognata*, eyes of spider from above and behind; 6a, 6b, 6c, palpus in three positions.

PLATE X.

1. *Enoplognatha molesta*, 1a, spider in profile; 1b, eyes from above and behind; 1c, one of the falces in profile; 1d, palpus; 1e, portion of palpus showing palpal organs.
2. *Enoplognatha inornata*, 2a, profile; 2b, eyes from above and behind; 2c, genital aperture.
3. *Latrodectus concinnus* ♀, 3a, profile; 3b, underside of abdomen; 3c, eyes from above and behind.
4. *Latrodectus concinnus* ♂, 4a, profile; 4b, eyes from above and behind; 4c, 4d, palpus in two positions.

PLATE XI.

1. *Latrodectus indistinctus*, 1a, profile; 1b, eyes from above and behind; 1c, genital aperture.
2. *Teutana lepida* ♂, 2a, profile; 2b, eyes from above and behind; 2c, 2d, palpus in two positions.
3. *Teutana connexa*, 3a, eyes from above and behind; 3b, genital aperture.
4. *Moero quadrimaculata* ♂, 4a, profile; 4b, eyes from above and behind; 4c, maxillæ, labium, and sternum; 4d, 4e, palpus in two positions; 4f, genital aperture of ♀.
5. *Theridion delicatum*, 5a, profile; 5b, eyes from above and behind; 5c, genital aperture,

PLATE XII.

1. *Theridion dedux* ♂, 1*a*, profile; 1*b*, eyes from above and behind; 1*c*, 1*d*, palpus in two positions; 1*e*, genital aperture ♀.
2. *Theridion Purcellii* ♂, 2*a*, profile; 2*b*, eyes from above and behind; 2*c*, 2*d*, palpus in two positions; 2*e*, genital aperture ♀.
3. *Linyphia interpolis* ♂, 3*a*, profile; 3*b*, eyes from above and behind; 3*c*, 3*d*, palpus in two positions; 3*e*, abdomen ♀, upper side.
4. *Lucrinus putus*, cephalo-thorax, 4*a*, profile; 4*b*, eyes from above and behind; 4*c*, hinder part of sternum; 4*d*, genital aperture.



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