

Genus 132. PLESIONEURA, Felder.

426. PLESIONEURA ELIGIUS.

Papilio eligius, Cramer, Pap. Exot. iv. pl. 354. fig. H (1782).

Genus 133. ACHLYODES, Hübner.

427. ACHLYODES OBSCURUS.

Anastrus obscurus, Hübner, Samml. ex. Schm. (1816-41).

428. ACHLYODES OZOTES.

Achlyodes ozotes, Butler, Trans. Ent. Soc. p. 515 (1870).

429. ACHLYODES OZEMA.

Achlyodes ozema, Butler, Trans. Ent. Soc. p. 515 (1870).

430. ACHLYODES SEMPITERNUS.

Achlyodes sempiternus, Butler & Druce, Cist. Ent. v. p. 114 (July 1872).

431. ACHLYODES VIRIDICEPS.

Achlyodes viridiceps, Butler & Druce, Cist. Ent. v. p. 115 (July 1872).

Genus 134. HELIAS, Fabricius.

432. HELIAS PHALÆNOIDES.

Urbanus vetus phalænoides, Hübner, Samml. ex. Schmett. (1806-16).

433. HELIAS LACTIFERA.

Helias lactifera, Butler & Druce, Cist. Ent. v. p. 115 (July 1872).

Genus 135. ANTIGONUS, Hübner.

434. ANTIGONUS NEARCHUS.

Hesperia nearchus, Latreille, Humb. Bonpl. Obs. Zool. ii. p. 135, pl. 43. figs. 3, 4 (1811-23).

Since the above was written, Mr. Druce has received from Costa Rica and described three new species—*Papilio sadyattes*, *Eresia coela*, and *Mesosemia ceropia* (see Ent. Mo. Mag. 1874, pp. 36, 37).

4. On some new Species of *Drassides*.

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[Received May 6, 1874.]

(Plates LI. & LII.)

Of the species (forty in number) described in the present paper from types in my own collection, thirty-nine are believed to have been hitherto unknown to science. *Nineteen* are from Egypt, *eleven* from Bombay (one of these, also in great abundance, from

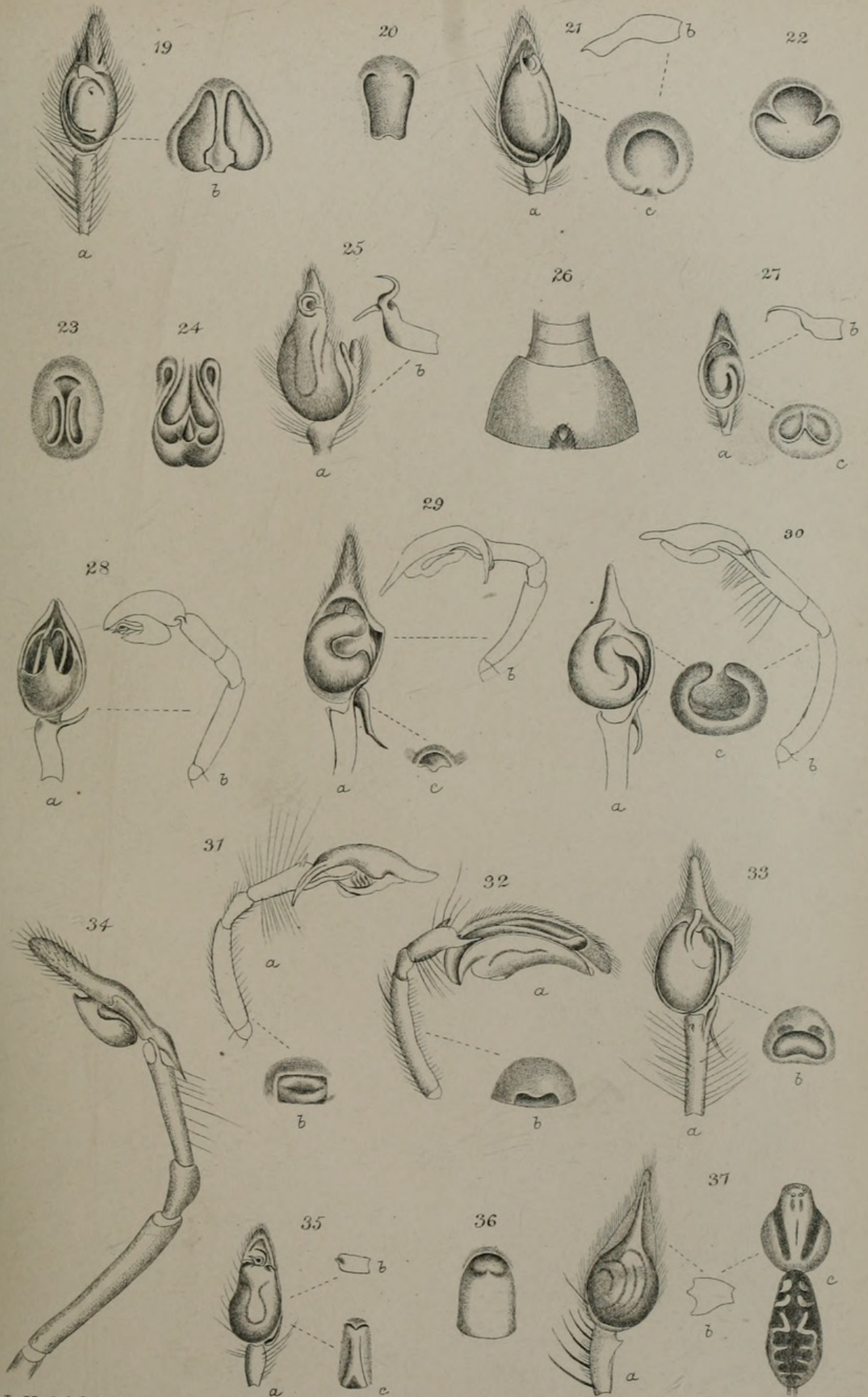


L.Koch&O.P.Cambridge del:
A.T.Hollick lith.

W.West&C^o imp.

New Species of Drassides.





L. Koch & O. P. Cambridge del.
A. T. Hollick lith.

W. West & Co. imp.



Ceylon), *eight* are European, *one* South-American, and *one* North-American. The larger number were intended to have been included in Dr. L. Koch's work on the Drassides ('Die Arachniden-Familie der Drassiden,' Nürnberg, 1866); but that work having long since been discontinued before its completion, I have thought it best not to delay their publication any longer. My thanks are especially due to Dr. Koch for the kind readiness with which he has placed at my disposal all the dissectional drawings made from the type specimens for his own work; these, supplemented with a few others drawn by myself, form the materials of the Plates intended to illustrate this paper. It will be observed that almost all the drawings are taken from portions of the genital organs—the palpi in the males, the genital aperture in the females. The form and structure of these parts afford the best, and in some instances the sole reliable, criteria for the determination of the species. The constant value of the palpi and palpal organs of male spiders for this purpose was first pointed out by our veteran araneologist Mr. John Blackwall; and it has since been abundantly recognized by all araneologists of any note, though, as far as I am aware, the credit of its discovery has not been sufficiently awarded by continental writers to its discoverer. The form of the genital aperture in female spiders as a specific character was first, I believe, made use of by Dr. L. Koch in the work on the Drassides above mentioned; and it seems likely to prove a most valuable differential character with respect to the females of other groups as well as that of the Drassides. In regard to them especially, it is not too much to say that, but for this character, many species would be quite indeterminable, from their great similarity in general form and colour to others nearly allied. And the same remark applies to the males also, many of which are with great difficulty recognizable as distinct species, except by the form and structure of the palpi and palpal organs. The Drassides are a very plainly coloured sombre-looking group; but few present any marked pattern or colouring; and in the absence of these a well-defined and easily observed structural character is peculiarly valuable. It is perhaps hardly necessary to say here that these sexual and, as observed before, so strongly specific characters are not developed either in the male or female spiders until the last moult or change of skin, when they become adult.

Family DRASSIDES.

Genus GNAPHOSA, Latr.

GNAPHOSA HARPAX, sp. n. (Plate LI. fig. 1.)

Adult male, length $2\frac{3}{4}$ lines.

This Spider is of ordinary form. The *cephalothorax* is broad oval, most pointed before, and somewhat depressed; the profile slopes gradually in a curved line from the thoracic junction to the eyes, and the lateral constriction forwards is but slight; its colour is yellow-brown with blackish margins; the normal grooves and in-

dentations are well marked, and suffused with black-brown and dark dusky yellow-brown. The sides of the cephalothorax are furnished with pale dull yellowish adpressed hairs.

The *eyes* are in the usual position, two rather widely separated divergently curved lines of four eyes each; the central eyes of the hinder row are smaller than the laterals, oval, and oblique; and the space between them is greater than that between each and the lateral of the same row on its side, these last two being almost contiguous to each other. The height of the clypeus is less than half that of the facial space. The eyes of each lateral pair are widely separated from each other; and the intervals between the eyes of the front row are the same apparently as that between those of the hinder one.

The *legs* are rather long and strong; their relative length is 4, 1, 2, 3; they are of a brownish-yellow colour, furnished sparingly with hairs and a few, mostly slender, spines.

The *palpi* are short, strong, and similar in colour to the legs: the radial and cubital joints are both short and of about equal length; but the former is the stronger, and has its outer extremity produced into a strong apophysis, whose length is about a third of that of the digital joint and longer than the radial joint itself; the extremity of this apophysis is flattened, curved, and pointed; and a little way from the extremity is a corneous-looking, sharp-pointed, hooked prominence directed outwards and backwards: the digital joint is strong, equalling in length the humeral one, and exceeding the radial and cubital together; it is oval, drawn out at its fore extremity. The palpal organs are well developed and rather prominent, but not very complex, with a slender curved filiform spine issuing from their fore extremity.

The *falces* are moderate in length and strength, vertical, conical, and of a deep red chestnut-brown colour.

The *maxillæ* and *labium* are of normal form, and of a dark yellow-brown colour, the extremities of the former being whitish.

The *abdomen* is of an oblong-oval form, thinly furnished with hairs; the upper part and sides are of a sooty brown colour, marked with numerous pale whitish drab spots and blotches somewhat symmetrically arranged; some of them form some transverse broken angular bars or chevrons on the hinder half of the upperside, the dark intervals forming transverse curved bars, at the extremities of which on either side is an circular depressed spot of a darker hue. On the fore half of the upperside is an elongate central band of a deep sooty brown, on either side of the posterior part of which are three more conspicuous depressed spots in a parallel line. The underside of the abdomen is of a pale dusky drab-yellow hue, with the plates of the spiracles large and of a yellow-brown colour; two irregular blackish lines run from this point, a little converging towards the spinners, which, however, they do not nearly reach.

The inferior pair of spinners are long, strong, and of a yellow-brown colour; those of the superior pair are paler and not half the length of the inferior.

A single adult male of this distinct species, which is allied to both

G. plumalis (Cambr.) and *G. exornata* (Koch), was received in a fine collection of spiders kindly made for me in the Bombay Presidency by Major Julian Hobson, H.M.S. Corps.

GNAPHOSA PROCERA, sp. n. (Plate LI. fig. 2.)

Adult male, length 4 lines (very nearly).

This Spider, in size, general form, structure, colours, and markings, is exceedingly like *G. cambridgii* (Cambr. & Koch), *G. lunata* (Cambr.), *G. kochii* (Cambr.), and *G. conspersa* (Cambr.) (see "Spid. of Palestine and Syria," P. Z. S. 1872, pp. 227-230), but may be at once distinguished by the form of the palpi; these are rather short and strong. The radial is of the same length as the cubital joint, and there is but little difference in their strength; the former has its outer extremity prolonged into a short, slightly bent, strongish, tapering, sharp-pointed, red-brown, corneous-looking apophysis, of about half the length of the joint itself, and contiguous to the base of the digital joint; these joints are furnished with hairs and strong bristles. The digital joint is large, and rather exceeds in length that of the radial and cubital together; its form is oval, gradually drawn out at its fore extremity. The palpal organs are well developed, and composed of various curved corneous spines and processes, not easy to be described differentially, but seen at a glance to be different on comparison with those of the other closely allied species; one conspicuous spine issues from the middle near the base of the palpal organs, and, curving over round their inner side, terminates in a sharp point near their outer extremity.

The *cephalothorax* is yellow, lightest towards the margins, which are bounded laterally by a black line; the sides have some blackish irregular markings; and two curved lines run backwards from the hind lateral eyes, converging to the thoracic junction.

The *legs*, *palpi*, *falces*, *maxillæ*, *labium*, and *sternum* are also yellow, the falces, however, being suffused with red-brown; and the digital joints of the palpi of a brownish hue.

The *abdomen* is of a clear straw-yellow colour, marked above with small black spots and points; those along the centre are mostly in parallel pairs, forming two irregular longitudinal rows; others are more thickly scattered along the margins, whence some run over upon the sides in curved oblique rows; and near the base of each of the superior and inferior spinners is a larger black spot or blotch, finishing on each side the two hinder oblique lateral rows; along the central line of the fore half is a rather tapering oblong yellow-brown marking. The underside is unspotted. The superior pair of spinners are small and short, less than one third the length of those of the inferior pair. The abdomen in the present species is more clearly and distinctly spotted, and less liable, apparently, to crowding, or to suffusion and running together than in the others.

The *female* is rather larger than the male, but resembles it exactly in colours and markings; the form of the genital aperture is exceedingly like that of the female of *G. cambridgii*; and should the two species ever be found in the same locality, it will require great care

to discriminate them; there is, however, a perceptible difference to be seen on comparison.

Adult examples of each sex were found by myself near Alexandria, Egypt, under stones.

Dr. Koch has pointed out to me a good distinction between this species and *P. conspersa* (Cambr.) in the plumose character of the hairs on the sternum of the former, those on the sternum of the latter being of an ordinary kind.

GNAPHOSA MARGINATA, sp. n. (Plate LI. fig. 3.)

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

This species is of ordinary form and general structure.

The *cephalothorax* is yellow, with a fine marginal black line; on either side of the caput a curved blackish irregular line runs from the extremity of the hinder row of eyes, the two lines converging at the thoracic junction; the sides of the cephalothorax are clothed with pale yellowish-grey adpressed hairs and a dusky brownish, indistinct, irregular, longitudinal line.

The *eyes* are in the usual position; those of the hind central pair are pearl-white, oval, oblique, and each is nearer to the lateral of the same row on its side than the two are to each other; the height of the clypeus appeared to be as nearly as possible equal to half the height of the facial space.

The *legs* are tolerably strong and moderate in length, their relative length being 1, 4, 2, 3; they are similar in colour to the cephalothorax, and are furnished with hairs and spines; and each tarsus terminates with two curved pectinated claws, beneath which is a small scopula.

The *falces* are rather short, strong, and conical in form; they are of a red-brown colour, furnished with short bristly hairs in front; the fangs are short, and on the inner margin of each falx beneath the pointed extremity of the fang is a small patch of short spine-like erect bristles.

The *palpi* are short, stout, similar in colour to the legs, furnished with hairs and spines, and terminated with a slightly curved pectinated claw.

The *maxillæ*, *labium*, and *sternum* are normal in form, and similar in colour to the legs (the two latter parts being a little the darkest).

The *abdomen* is of a somewhat oblong-oval form, thinly clothed with hairs of a pale whitish-yellow colour, and irregularly margined on the upperside with black-brown; the six normal impressed spots on the fore half are in the usual position and blackish in colour, and a longitudinal central oblong marking of the same colour runs between them; following the last pair of these impressed spots, towards the spinners are four or five transverse angular bars or chevrons (with the vertices directed forwards) of a yellow-brown colour, the extremities of each ending in a blackish spot; the intervals between these chevrons are of a paler colour than the rest of the abdomen. The underside is immaculate; the spiracular plates are pale yellow;

and the genital aperture, which, like that of all the species of this genus and of most others also, is of peculiar and characteristic form (*vide* Plate LI. fig. 3) and of a dark blackish red-brown colour; the spinners are of moderate length, those of the inferior pair being strongest and slightly longest.

A single adult female was found by myself in Egypt, among the débris of an old wall, in 1864.

GNAPHOSA VENATRIX, sp. n. (Plate LI. fig. 4.)

Adult male, length $2\frac{1}{4}$ lines.

This species is very nearly allied both to *G. marginata*, *G. corcyracea*, and *G. plumalis*; it is, however, smaller, and differs notably in the form of the radial joint of the palpus, as well as in other less prominent particulars.

The *cephalothorax* is of a short oval form, pointed before and very flattened above, of a yellow colour, clothed with greyish adpressed hairs; it is margined with blackish, and, besides a curved blackish irregular line from inside each lateral eye of the hinder row to the thoracic junction, the sides have some blackish markings between the normal converging indentations.

The *eyes* are in the usual position; but those of the hinder row appeared to be very nearly equidistant from each other, each one of the hind central (oblique-oval) eyes being nearer to the lateral of the same row on its side than usual; each of the fore central pair seemed to be contiguous to the lateral of the same row on its side, and the two (fore centrals) form a line equal in length to that formed by the hind centrals.

The *legs* are strong, moderately long, of a pale yellow colour, furnished with hairs, bristles, and spines (the latter chiefly on those of the two hinder pairs); the tarsi end with two slightly curved pectinated claws; but there appeared to be no scopula beneath them; the relative length of the legs is 4, 1, 2, 3.

The *palpi* are short, strong, similar in colour to the legs, and furnished with hairs and bristles; the radial is about equal in length to the cubital joint, and has its outer extremity produced into a small, slightly curved, pointed apophysis; the digital joint is large, oval, pointed before, longer than the radial and cubital joints together; the palpal organs are well developed, rather prominent behind, and consist of several corneous processes and spines.

Falces not very large, a little projecting, conical in form, and of a palish yellow-brown colour.

Maxillæ, *labium*, and *sternum* normal in form, and of a pale yellow colour, furnished with hairs.

Abdomen of a short oblong-oval form, and of a dusky drab colour, marked above with short blackish lines, spots, and striæ, chiefly towards the sides; on the hinder half of the upperside is a longitudinal series of transverse angular bars or chevrons of a clear pale drab yellowish colour, divided from each other by blackish lines or broken chevrons; the underside has no markings. The spinners are greatly unequal in size, those of the inferior pair being more than

double the length of and very much stronger than those of the superior pair.

A single adult male was found by myself at Alexandria (Egypt) in April 1864.

GNAPHOSA CORCYRÆA, sp. n. (Plate LI. fig. 5.)

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

This Spider is of ordinary form and general structure, and is allied nearly to *G. plumalis* (Cambr.), but may be easily distinguished by the form of the palpi and palpal organs.

The *cephalothorax* is yellow-brown, narrowly margined with black and with a broad marginal band of white pubescent hairs; the indentations marking the caput from the thorax are strongly suffused with blackish, as also, though not quite so strongly, are the other normal indentations; the upper part of the caput is furnished with white pubescent hairs; the height of the clypeus is less than half that of the facial space.

The *eyes* are small, not very unequal in size, and in the ordinary position; those of the hind central pair are further from each other than each is from the lateral of the same row on its side; the interval between each lateral and central on its side of this row is greater than the diameter of the lateral.

The *legs* are rather short, strong, furnished with spines and hairs; but these last were nearly all rubbed off in the only example found; the legs are of a yellow-brown colour, and their relative length is 4, 1, 2, 3.

The *palpi* are short and strong, and similar in colour to the legs; the radial is short, but equal in length and strength to the cubital, and its outer extremity is produced into a short, broad, obtuse apophysis, having several bluntish points at its extremity; the digital joint is rather large, and longer than the radial and cubital joints together; it is of an oval form, and has a small prominence near its base on the outer side. The palpal organs are well developed and prominent, but not very complex, consisting of a large corneous lobe a little irregular in its outline on the inner side and at the extremity.

Falces moderate in size, straight, nearly vertical, and of a conical form and dark yellow-brown colour.

The *maxillæ*, *labium*, and *sternum* are of ordinary form, and similar to the cephalothorax in colour.

The *abdomen* is of moderate size and oval form, rather truncate before, and not very convex above; it is of a blackish-brown colour above. Six impressed spots of a pale colour, arranged in two short, longitudinal, curved, divergent rows of three each on the fore half of the upperside, are clothed with whitish hairs; between these is a shortish dark blackish oblong bar or patch; and from this to the spinners runs a broadish central pale band, emitting on each side several short slightly oblique pale bars clothed with whitish hairs; the sides have three broad pale yellow-drab, oblique bands nearly contiguous to each other and running from the

spinners forwards; the underside is pale yellow-drab. Spinners prominent and rather long, but not very unequal in length; those of the inferior pair are strongest; they are of a yellow-brown colour.

A single adult male was found under a stone at Corfu by myself in May 1864.

Genus PROSTHESIMA, L. Koch (*Melanophora*, C. Koch).

PROSTHESIMA TRISTICULA, sp. n. (Plate LI. fig. 6.)

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

In general character, form, and colour this Spider is of the ordinary type.

The *cephalothorax* is but very slightly constricted on the sides at the caput, and the upper surface is tolerably uniformly rounded on the sides; its colour, as well as that of the maxillæ, is yellow-brown, sparingly clothed with paler hairs, the normal indentations being shown by converging dusky brown rays meeting in a small longitudinal reddish brown line at the thoracic junctional indentation.

The *eyes* are in two slightly curved and as nearly as possible concentric transverse rows, the foremost row being the shortest; they form a transverse curved oblong figure, the curve directed backwards, and the length (taking the foremost row as its length) about double its width; the interval between the eyes of the hind central pair is a little greater than that between each of them and the hind lateral eye on its side, being slightly greater than the diameter of one of the former; the lateral eyes of each row are the largest, the fore laterals being rather larger than the hind laterals; each fore lateral is separated from the hind lateral nearest to it by an interval equal to the diameter of the former; the fore centrals are smallest of the eight, placed on a slight prominence, and wider apart from each other than each is from the fore lateral on its side, from which each is separated by no more than half the diameter of the fore central eye.

The height of the clypeus is rather less than half that of the facial space.

The *legs* are tolerably long and strong; their relative length is 4, 1, 2, 3; they are fairly furnished with hairs, some of them coarse and long, and bristles; and on those of the third and fourth pairs there are strong spines on the tibial and metatarsal joints. The colour of the legs is a dusky greenish yellow-brown; the tarsi generally brown, those of the fourth pair, however, being pale yellow; the inferior surface of the tarsi is pretty thickly clothed with short strong hairs, but scarcely amounting to a scopula; each tarsus ends with two strongish curved claws, pectinated or toothed beneath their posterior half. The claws on the tarsi of the fourth pair are stronger than those of the other legs.

The *palpi* are short, brownish yellow (except the digital joint, which is darker brown), and furnished sparingly with hairs. The cubital and radial joints are short; the latter is the shortest, and has its extremity on the outer side prolonged into a tapering blunt-pointed apophysis exceeding in length the joint itself. The

digital joint is of ordinary form, rather large, and longer than the radial and cubital joints together. The palpal organs are well developed, but not very complex, consisting of several corneous lobes and processes of different forms.

The *falces* are of moderate length and strength, a little projecting, and rather prominent near their base in front, where there are numerous long, coarse, prominent bristles.

The *maxillæ* are moderately long; they are broad and strong at and below the insertion of the palpi, which spring from a little more than halfway towards their extremities; they are curved towards the labium, and broadly impressed across the middle of their front surface, and are rounded on the outer side and obliquely truncated on the inner side at their extremities.

The *labium* is of an oblong-oval form, truncated at the apex; the margins are impressed and somewhat constricted, giving to it, as well as to the same portion of structure in many other species of this genus, a peculiar appearance.

The *sternum*, together with the *labium* and *maxillæ*, are of a yellow-brown colour.

The *abdomen* is of ordinary size, and narrow oblong-oval form, well clothed with hairs, and of a sooty black colour; on the fore part of the upperside is a dull, obscure, yellowish-brown, elongate patch, followed by the ordinary six linear spots in two longitudinal opposed curved lines; these are, however, very indistinct; the underside is dull brownish, tinged with yellow. The spinners of the inferior pair are greatly the longest and strongest; the rest are very much smaller, especially those of the central pair, which are almost imperceptible.

This Spider is very nearly allied to *Prothesima* (*Melanophora*) *læta* (Cambr.), found in Palestine and also in Egypt; but Dr. L. Koch's opinion agrees with my own, that it is quite distinct. There is a slight difference in the structure of the palpal organs; the falces are less prominent at their base in front; and the spinners of the superior pair are, in *P. tristicula*, shorter than in *P. læta*.

The generic distinction between *Prothesima* and *Drassus* is slight, consisting chiefly in the position of the palpi with respect to the maxillæ: in *Drassus* the palpi arise from the maxillæ at or below the middle, never above it; in *Prothesima* they issue at or above the middle, *i. e.* nearer to the extremities, but never below it. The maxillæ also are more strongly impressed or constricted transversely in front near the middle.

An adult male of *P. tristicula* was found by myself under a piece of rock near Alexandria, in April 1864.

PROTHESIMA LUGUBRIS, sp. n. (Plate LI. fig. 7.)

Adult female, length 3 lines.

This Spider is of ordinary form and general structure.

The *cephulothorax* is deep black-brown, its highest point in the profile-line being at the beginning of the hind slope. The *legs*, *palpi*, *falces*, and other fore parts, except the sternum, are deep brown, the *tarsi* being reddish yellow-brown, and the *abdomen* black.

The *eyes* are in the usual two transverse rows, the front row being considerably shorter than the hinder one and slightly curved, the hinder one being straight; the hind central pair are smaller than the hind laterals, and nearer to each other than each is to that of the latter nearest to it; the fore centrals are largest of the eight, and are further from each other than each is from the fore lateral on its side, each fore lateral being in fact nearly, if not quite, contiguous to the fore central next to it. The height of the clypeus is less than half that of the facial space.

The *legs* are moderately long, their relative length being 4, 1, 2, 3. The femora, gemmæ, and tibiæ are more than usually strong; they are well furnished with hairs; and the tibiæ and metatarsi of the third and fourth pairs have some strongish spines; there are also some spines beneath the metatarsi of the first and second pairs, together with numerous papilliform hairs beneath all the tarsi and metatarsi, except perhaps the metatarsi of the fourth pair, which appear to be without them.

The *maxillæ* are rather stronger than usual, but of normal form. The palpi issue from, as nearly as possible, the middle point towards their extremities, which are of a pale yellowish colour.

The *labium* is of a broad oblong form, slightly rounded at the apex.

The *sternum* is similar in colour to the cephalothorax, and seems to be more convex than usual, the central portion, however, being quite flat.

The *abdomen* is black, hairy, of an oblong-oval form, projecting a little over the base of the cephalothorax; the underside of the fore part furnished with strong upturned bristly hairs. The plates of the spiracles are pale yellow-brown, and the genital aperture margined with deep brownish red. The spinners are short; those of the inferior pair strong and longest, those of the superior pair being only just discernible.

A single adult female was found by myself under a stone near Ischl (Upper Austria) in the summer of 1865.

PROSTHESIMA CURINA, sp. n.

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

The *cephalothorax* of this species differs from the majority of the species of this genus in being broader and more truncate before; and the profile line, instead of having its highest point at the thoracic junction and falling gradually in a slightly curving line to the eyes, presents a uniform curve, the highest point being at the occiput; it is of a deep rich reddish-brown colour, sparingly clothed with a few fine palish hairs; the normal grooves and indentations are very slightly marked, and the lateral constrictions at the caput are barely visible. The clypeus is equal to half the facial space.

The *eyes* are in two transverse, straight, parallel rows, forming an oblong figure, whose length is more than double its width; the hinder row is longest, and its two central eyes are smallest of the eight and round, the interval separating them being equal to very

nearly two of their diameters, and considerably larger than that which separates each from the hind lateral on its side. The eyes of each lateral pair are separated from each other by nearly the diameter of one of them, there being but little difference in their size. The eyes of the fore central pair are (apparently) but little larger than the hind centrals; the interval between them is less than two diameters, and that between each and the fore lateral on its side is equal to about the diameter of the former.

The *legs* are rather long and moderately strong; their relative length is 4, 1, 2, 3; they are of a deep brown colour, getting paler towards the extremities, the tarsi being pale yellowish.

The *palpi* are not very long nor strong, but similar in colour to the legs; the cubital and radial joints are equal in length; the latter has its outer extremity produced into a strongish, tapering, bluntish-pointed apophysis, rather less in length than the joint itself; the digital joint is of ordinary form, rather large, and its length exceeds that of the radial and cubital joints together. The palpal organs are simple and have a short, strong, curved, bluntish-pointed, corneous process or spine near their extremity.

The *falces* are long, strong, projecting, and considerably arched or prominent near their base in front; they are similar to the cephalothorax in colour, and their fore sides are covered with black granulations or small tubercles; from some of these issue strong bristly hairs; and probably from the rest similar bristles had been rubbed off.

The *maxillæ* are of normal form. The palpi issue from above the middle point towards their extremity; they are of a deep yellow-brown colour, paler at the extremities.

The *labium* is of normal form, and similar to the cephalothorax in colour.

The *sternum* has numerous prominent bristly hairs round its margin; and its general surface appeared to be covered with minute punctures; its colour is similar to that of the maxillæ.

The *abdomen* is of an oblong-oval form, and projects over the base of the cephalothorax; it is black, clothed with hairs, and has a deep-brown coriaceous patch at its fore extremity on the upperside. The spinners are blackish and of ordinary size; those of the inferior pair are double the length of the superior pair, but about equal in strength.

A single adult male was found at Alexandria, under a stone, by myself in April 1864.

PROTHESIMA NILICOLA, sp. n. (Plate LI. fig. 8.)

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

This small but very distinct species is of ordinary general form and structure.

The *cephalothorax* is glossy, and of a rich deep brown colour, narrowly margined with black; the ordinary grooves and indentations are barely visible, and the lateral constriction at the caput is very slight.

The *eyes* are placed in the usual two transverse lines; the hinder row is slightly the longest and straight, the fore one a little curved; the eyes of the hind central pair appear to be the smallest of the eight, and the fore laterals the largest; the hind laterals are very small and obliquely placed; the four eyes of the hinder row are equidistant from each other; each hind lateral is separated from the fore lateral on its side by rather less than the diameter of the former; the fore laterals are large, slightly obliquely placed, of a somewhat oval form; the fore centrals are also large, round, and contiguous to each other, and each is contiguous to the fore lateral on its side.

The *legs* are rather long and strong, particularly the femoral joints; their relative length is 1, 4, 2, 3; they are of a dark brown colour tinged with olive; the two basal joints, however, as well as the metatarsi and tarsi, are yellow-brown; the tarsi of the fourth pair are palest and tinged with red; they are furnished with hairs; and there are some not very strong spines, principally on the tibiæ and metatarsi of the third and fourth pairs.

The *palpi* are short, tolerably strong, and of a yellow-brown colour; the cubital and radial joints are very short, but of equal length; the latter has its outer extremity produced into a not very long, tapering, deep-shining brown apophysis, whose pointed extremity curves upwards; the digital joint is large and of a broadish oval form, its length exceeding that of the radial and cubital joints together. The palpal organs are well developed: they consist of several largish prominent corneous lobes and processes; and a long tapering black spine issues from their fore extremity and forms a bold coil or bend near the middle of their outer side, from which part also there issues another much shorter, curved, prominent, pointed, black spine.

The *falces* are neither very long nor strong; they project forwards, and, with the maxillæ, labium, and sternum (which are all of normal character), are of a dark yellowish-brown colour.

The *abdomen* is oblong-oval in form, and rather flattened; it is moderately clothed with hairs and of a nearly black colour; a large patch of a subtriangular form occupies the fore part; this patch is of a rather shining coriaceous nature and deep brown colour; beneath the fore part are some long, strong, upturned, bristly hairs.

A single example was found by myself under a stone near Alexandria in April 1864.

PROSTHESIMA MOLLIS, sp. n. (Plate LI. fig. 9.)

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

In its general yellow colouring this species resembles *P. pallida* (*postea*, p. 383); but it may be easily distinguished by the closer grouping of the eyes, the two rows of which, however, are further apart, the hinder row being much more curved; the spinners of the inferior pair are also much shorter; the legs too are shorter, and the genital aperture differs greatly in form.

There is nothing noticeable as different from the normal type in the form of the cephalothorax, except that the lateral constriction of the caput is rather more marked; it is (as well as the whole of

the rest of the fore part) of a pale orange-yellow colour, and differs but little in size.

The *eyes* are large, and are placed, as usual, in two transverse curved rows, of which the foremost one is slightly the longest, and the hinder one the most curved, the area they describe being no more than one third longer in its transverse than in its longitudinal diameter: the hind centrals are oval, oblique, of a pearl-grey colour and margined with black; they are very near together and not quite contiguous; and the interval that separates them is about equal to that which divides each from the hind lateral nearest to it, being no more than one fourth of a hind central eye's diameter: each hind lateral is separated by half its diameter from the fore lateral next to it, and is contiguous to the fore central eye on its side. The fore centrals are unusually large for these eyes, being as large or larger than the fore laterals; they are round, dark-coloured, separated from each other by rather less than half a diameter, and (like the same eyes in many others of the genus) placed on somewhat of a slight eminence: the four lateral eyes are margined with black, and of a pearl-grey colour, but not quite so dark as the hind laterals.

The *falces* are small and almost vertical.

The *legs* are shortish; relative length 4, 1, 2, 3, moderately strong, furnished sparingly with hairs, and with a few short weak spines on the tibiæ and metatarsi of the two hinder pairs; there are also one or two longer and stronger ones on the fore sides of the femora of the same pairs.

The *maxillæ* are normal in size and form; but the palpi issue from the middle point of their length.

The *labium* also is normal.

The *abdomen* is oblong-oval, truncated before; it is sparingly clothed with hairs, and is of a pale dull luteous yellow colour; it projects but very slightly over the base of the cephalothorax, and at that part has some strong upturned bristles: four impressed dusky spots form a largish quadrangular figure on the fore half of the upper side; this figure is longer than broad, and its fore side is slightly shorter than the hinder one: a narrow, somewhat tapering, indistinct dusky marking is defined by two nearly parallel dusky lines along the middle of the fore half, running between the two foremost of the above-mentioned spots. The spinners of the inferior pair are not as long as in many other species, but much longer than those of the superior pair. The form of the genital aperture is simple, but peculiar (*vide* Plate LI. fig. 9).

A single adult female was found by myself under a stone near Alexandria, in April 1864.

PROSTHESIMA CINGARA, sp. n. (Plate LI. fig. 10.)

Adult female, length not quite 3 lines.

In general form and structure this species presents nothing peculiar, and in its dark and sombre colouring it much resembles *P. pedestris* (Koch) and *P. tristicula* (Cambr.); the form of the

cephalothorax is oval, most pointed before; the lateral constrictions at the caput are very slight; and the normal grooves and indentations are indicated by blackish lines, the ground-colour of the cephalothorax being a rich deep brown, as also is that of the legs (except the tarsi, which are reddish yellow-brown), the palpi, falces, maxillæ, labium, and sternum—the extremities of the maxillæ, however, being pale; the abdomen is black, the spinners deep brown, and the spiracular plates yellow-brown.

The *eyes* are in two almost straight transverse lines, the foremost being the shortest. The interval separating those of the hind central pair (which are small, oval, but not oblique) is rather less than that which divides each from the hind lateral next to it. The four laterals are larger than the four centrals, those of the front row being the largest of the eight; and each of these is separated from the hind lateral on its side by an interval equal to that which divides each hind lateral from the hind central nearest to it; each fore central is very nearly contiguous to the fore lateral on its side, the interval between the two fore centrals being apparently greater than the diameter of one of them; but these eyes are so dark and indistinct that it is not easy to see their exact position. The figure formed by the eight eyes is an oblong whose length (*i. e.* transverse diameter) is as nearly as possible double its longitudinal diameter (or width). The height of the clypeus is low, being less than half that of the facial space.

The *legs* are moderately long and strong, the femora being peculiarly strong and incrassated on their uppersides; they are furnished with hairs; and the tibiæ and metatarsi of the third and fourth pairs have some tolerably strong spines; the two terminal tarsal claws of the fourth pair are rather longer, stronger, and less curved than the rest.

The character of the maxillæ and labium is normal.

The *falces* are moderate in length and strength, a little projecting forwards and arched near their base in front, where they are furnished with strong bristly hairs.

The *abdomen* is oblong-oval, very sparingly clothed with hairs; it projects a little over the base of the cephalothorax. The inferior pair of spinners are longest and strongest, but not so disproportioned in size to the others as in *P. tristicula* and some others; the genital aperture is of characteristic form (*vide* Plate LI. fig. 10), and yellow-brown, with deep red-brown margins.

Three adult females of this species were found by myself in May 1864, under stones at Corfu.

PROSTHESIMA PALLIDA, sp. n. (Plate LI. fig. 11.)

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

This species will be readily distinguished by the almost immaculate yellow colour of the whole of the fore part, *i. e.* all except the abdomen, which is of a yellowish mouse-coloured brown above, the underside being pale dullish yellow.

The *cephalothorax* is of the ordinary form, rather narrower and a little more constricted laterally at the caput than in *P. tristicula*; it

is moderately arched above, the profile-line sloping forwards, with a slight general curve from the thoracic junction to the eyes; the normal grooves and indentations are fairly marked, and of a slightly dusky hue.

The *eyes* are large, rather closely grouped, and in two nearly parallel slightly curved lines of equal length, the curve directed outwards; and the height of the clypeus is considerably less than half that of the facial space. The four eyes of the hinder row are equally separated from each other, the intervals, however, being very small; the eyes of the hind central pair are larger than the hind laterals, oval, and a little obliquely placed; they are pearly, of a grey hue, the laterals of both rows being pearly also but white, the fore centrals dark; these last are the smallest of the eight, and the interval between them is greater than that between each and the fore lateral on its side, the fore laterals being very nearly contiguous to the fore centrals, oval, oblique, and apparently the largest of the eight, though not much larger than the hind centrals, and each is separated from the hind lateral on its side by an interval about equal to the diameter of the latter. The length of the curved oblong figure formed by all the eyes is, as nearly as possible, double that of its width.

The *legs* are moderately strong, rather long, their relative length being 4, 1, 2, 3; they are furnished sparingly with hairs and slender bristles, with a few spines on the tibiæ and metatarsi of the two hinder pairs; each tarsus ends with two curved claws, pectinated at their base; the claws on the tarsi of the fourth pair of legs are longer and rather stronger than the rest.

The *palpi* are rather short and not very strong; they are furnished with hairs and bristles, a rather conspicuous tapering black bristle issuing from the fore extremity on the upperside of the cubital joint; this joint and the radial are of equal length; the latter is rather less strong than the former, and has its fore extremity on the outer side produced into a small, tapering, bluntish-pointed apophysis, not much exceeding in length one third that of the joint itself. The digital joint is not very large; it is of ordinary form; and its length is considerably less than the united lengths of the radial and cubital joints. The palpal organs are simple but well developed, consisting of a large, oval, corneous lobe, broken up at its fore part into one or two irregular corneous processes.

The *falces* are strong, moderately long, a little projecting forward, arched, but not very prominent near their base in front, where they are furnished with some prominent bristles.

The *maxillæ* are strong, moderately long, inclined as well as curved towards the labium, and strongly impressed across the middle of the front surface; the point of issue of the palpi is slightly above the middle point between the base and extremity; at this point the maxillæ are very broad and strong: in these and other respects there is no difference from the generic type.

The *labium* is two thirds of the length of the maxillæ, of an oblong form, rounded a little on the sides as well as at the apex.

The *sternum* is of ordinary form; it is glossy and has its margins

furnished pretty thickly with prominent black bristly hairs, of which also there are some on the front of the maxillæ.

The *abdomen* is short, oblong-oval in form, sparingly clothed with hairs, and projects over the base of the cephalothorax, the projecting portion furnished with numerous, recurved, strong bristles; it has a faint indication of a narrow palish wedge-shaped marking on the fore half of the upperside. The spinners of the inferior pair are long, strong, and cylindrical, and about three times the length of those of the superior pair.

The female is rather larger than the male, but resembles it in form, general structure, and colours.

The form of the genital aperture is peculiar, but not remarkable in its development; it consists of two rather small, oblong-oval, opposed openings united at their fore part; and beneath each of them is a round, red-brown, shining, corneous-looking, convex boss or spot.

An adult example of each sex was found by myself under stones near Alexandria, in April 1864.

Genus DRASSUS, Walck.

DRASSUS NIGROFEMORATUS, sp. n. (Plate LI. fig. 12.)

Adult male, length $2\frac{3}{4}$ lines.

The *cephalothorax* of this very distinct species is of ordinary form; its colour is a clear reddish yellow-brown, clothed with a few greyish pubescent hairs on the hinder part, and some longish bristles directed forwards in the ocular region; the normal indentations are of a deeper, duskier colour.

The *eyes* are in two curved nearly parallel rows, the hinder one of which is the longest. The eyes of the fore central pair are the largest of the eight; they are separated from each other by about half of an eye's diameter, and each is contiguous to the lateral of the same row on its side; those of the hinder row are equally separated from each other; and those of each lateral pair are wide apart; in fact the position of the eyes is more like that of *Gnaphosa* than the usual type of *Drassus*. Dr. Koch seems to have been in doubt to which of these genera to refer it; but the form of the *maxillæ* appears to me to be decidedly that of *Drassus*.

The *legs* are moderately long and rather strong; they are of a reddish-yellow colour, except the femora, which are quite black, and are furnished with a few hairs and spines; each tarsus ends with two curved pectinated claws, beneath which is a small claw-tuft or scopula.

The *palpi* are short and strong, and of a dark yellowish-brown colour. The radial joint is, if any thing, rather shorter than the cubital, and has its outer extremity continued in a long, tapering, curved, blunt-pointed apophysis, directed upwards and rather over the hinder part of the digital joint; this apophysis is more than double the length of the joint itself, and extends to half the length of the digital joint; this latter joint is of tolerable size and oval form; and the palpal organs are well developed but compact, consisting of several corneous spines and processes.

The *falces* are neither very long nor strong; they are straight and nearly vertical, and of a dark reddish-brown colour.

The *maxillæ* and *labium* are normal in form, and of a deep blackish-brown colour, the former tipped with pale yellowish.

The *sternum* is oval and similar in colour to the cephalothorax.

The *abdomen* is of an oblong form; its colour is black-brown; and it has a pale transverse band at its fore margin, clothed with white hairs; behind this on either side is an indistinct suffused patch of pale yellowish red-brown, and behind again, about the middle of the length of the abdomen, is on each side another pale yellowish-brown tapering stripe running over the side and with its pointed extremity directed backwards; these last two stripes do not meet in the middle of the abdomen, but they are clothed with white hairs; just above the spinners also is a transverse, somewhat crescent-shaped band of white hairs. A large squarish area next to the spiracular plates on the underside is of a pale dusky drab colour, those plates as well as the space between them being similar in colour to the cephalothorax.

A single adult male from Italy; the precise locality unknown, but believed to be near Naples.

DRASSUS BULBIFER, sp. n. (Plate LI. fig. 13.)

Adult male, length 2 lines.

The *cephalothorax* of this very distinct species is of a bright reddish yellow-brown colour, with the margins and normal grooves and indentations marked with black; it is of ordinary form. When looked at in profile, the occiput is roundish and rather higher than either the thoracic junction or the ocular area; this latter portion is almost all black; the height of the clypeus (which retreats a little) is about one third that of the facial space.

The *eyes* are of moderate size and not very unequal to each other; they are in two transverse rows (the front row shortest), slightly curved from each other, forming an oblong figure, whose length at its longest part is rather more than double its width at the widest part; the four eyes of the hinder row are about equal in size, pearly white, and equidistant from each other, the intervals, if any thing, rather exceeding an eye's diameter. The fore central eyes are rather smaller (being the smallest of the eight), but form a line equal in length to the hind centrals, the interval between them being greater than an eye's diameter; and each of them is very close, but not quite contiguous, to the fore lateral on its side; the interval between each fore lateral and the hind lateral on its side is about equal to the diameter of the latter; while the interval between each fore central and the hind lateral nearest to it is about equal to two diameters of the former.

The *legs* (in the only example examined) were much mutilated, but they appeared to be undoubtedly long and strong; their relative length 4, 1, 2, 3; they are yellow; the femora of the first and second pairs are black, furnished with hairs, and there are some spines on those of the third and fourth pairs; the terminal tarsal claws on

such of the legs as were still uninjured were two, black and small; and beneath them is a scopula of short hairs extending backwards over the inferior surface of the joint.

The *palpi* are strong and moderately long; the humeral joint is of unusual strength, being considerably prominent above towards its hinder extremity, lessening gradually forwards; their colour is dusky yellow-brown. The radial joint is shorter and less strong than the cubital; it is furnished with numerous strong bristly hairs on its inner side, and has its outer extremity produced into a strongish apophysis, equal to the joint in length, rather enlarged and roundly obtuse at its extremity. The digital joint is large, and its length considerably exceeds that of the radial and cubital joints together. The palpal organs are large, highly developed, and very prominent, consisting of a large, nearly globular lobe with several dark sinuous markings on its surface, giving the appearance of closely applied spines; this lobe is rather drawn out at its fore extremity, where it is also apparently slightly cleft or divided.

The *falces* are moderately long, rather slender, and nearly vertical; when looked at from in front, the maxillæ are seen to extend considerably on either side of them; they are of a dark reddish-brown colour.

Maxillæ long and strong, and very slightly inclined towards the labium; they are laterally prominent at their extremity on the outer side, and round on the inner side; the outer profile-line, when looked at with the Spider flat upon its back, is hollow; the line and impression on their front surface is general, but not great.

The *labium* is more than half the length of the maxillæ; it is oblong, rounded at the apex, and (with the maxillæ) is of a deep yellow-brown colour.

The *sternum* is of a rather elongate-oval form; and its colour is yellow-brown, slightly tinged with reddish.

The *abdomen* is oblong-oval, broadest and bluff behind and truncate before, where it projects over the base of the cephalothorax; it is hairy, and its colour is black. The fore half of the upperside is almost entirely occupied by a large patch of a deep reddish brown, shining, coriaceous nature; this patch is roundly pointed behind, its side margins being also rather rounding, and it lies exactly within a quadrangular figure occupying the largest portion of the fore part of the abdomen, and formed by four pale whitish spots: following the hinder pair of these spots, which are impressed and indicated by white hairs, are two others on the hinder half of the abdomen, rather nearer together, but also impressed, and shown by two short transverse lines of white hairs. The spinners are dusky black, not very long, those of the superior pair being very slightly shorter than those of the inferior pair, and not quite so strong: the spiracular plates are large, and of a clear pale yellow colour; between them the opening leading to the spermathecae is unusually visible and of a semi-circular form; this opening is seldom visible in male Spiders, being usually an imperceptible slit.

A single example of the adult male of this Spider was found among

a number of specimens of various genera collected on the continent of Europe in different localities, and given me by the late Mr. Richard Beck, of 31 Cornhill, London.

DRASSUS ORNATUS, sp. n.

Immature female, length rather more than 2 lines.

The only example met with of this species being immature, I should not have ventured to describe it as new had it not been for the very distinctive pattern upon the cephalothorax and abdomen; that on the abdomen especially will serve to distinguish it from every other species known to me.

In form and structure this Spider is of the common type of *Drassus*; the *cephalothorax* is reddish yellow, margined narrowly with black, and with a broad longitudinal blackish-brown band on either side touching the black margins. The rest of the fore part (except the legs) is similar in colour to the cephalothorax. The *legs* are strong, moderately long, yellow, and obscurely but broadly banded with dusky brown, the genual, tibial, and metatarsal joints of the first pair being wholly suffused with blackish brown; they are furnished with hairs and spines, the latter chiefly on those of the third and fourth pairs; the two terminal tarsal claws are slightly toothed; they are not very strong nor very strongly curved, and there is no claw-tuft beneath.

The *eyes* are rather small, and placed in two very nearly parallel transverse rows; those of the hind central pair are oval, oblique, and are separated by rather a wider interval than that which separates each from the lateral of the same row on its side; those of each lateral pair are separated from each other by an interval equal to that which divides the hind lateral and hind central eyes; the four central eyes form very nearly a square, the fore side being rather the shortest; the eyes of the front row are near together, being about equally separated; if any thing the interval between those of the central pair of the front row, however, is rather greater than that which separates each from the fore lateral nearest to it; the fore laterals are the largest of the eight; the height of the clypeus is less than half that of the facial space.

The *abdomen* is of a broad oblong-oval form, tolerably convex above, and projecting over the base of the cephalothorax; it is of a pale dull yellow colour, very sparingly clothed with hairs; but beneath the fore part is a transverse row of strong bristles curving upwards; this part is blackish brown, as also is a longitudinal central narrow pointed band of the same colour on the fore half: from this band issue at right angles three lateral blackish-brown stripes; these are continued obliquely over the sides, and are succeeded towards the spinners by several others of a similar nature and parallel to those on the fore part. The above-mentioned stripes are formed by small blackish-brown spots and markings, and are very distinct and characteristic, standing out strongly on the yellow ground-colour of the abdomen.

A single example was found under a piece of stone near Alexandria, Egypt, by myself in April 1864.

DRASSUS ENSIGER, sp. n. (Plate LI. fig. 14.)

Adult male, length 3 lines.

This species is of ordinary form and general structure, being nearly allied to *Drassus troglodytes* both in size, form, and colour; but it differs remarkably from that, as well as from all other species known to me, in the structure of the palpi and palpal organs.

The *cephalothorax* is broadish oval, rather tapering before, *i. e.* narrowest at the caput and rather flattish above; the normal grooves and furrows are fairly indicated, but the lateral impression at the caput is very slight; it is of a dark reddish yellow-brown colour, with a fine blackish marginal line, and converging dusky lines marking the segmental grooves.

The *eyes* are of moderate size, and, except those of the fore central pair, of a pearly whiteness, narrowly edged with black; their general position is ordinary, in two curved rows, the curves of which are directed backwards, forming a transverse curved oblong figure whose length is about double its width. The clypeus is low, apparently not exceeding one third of the facial space. The eyes of the hind central pair are oval, oblique, and near together, but not contiguous to each other, and each is separated from the lateral of the same row on its side by little if any more than the lateral eye's diameter; those of each lateral pair are near to each other and placed a little obliquely, the interval between them is as nearly as possible equal to that which separates those of the hind central pair; the four forming the foremost row are very near together, but not quite contiguous, those of the fore central pair being rather further from each other than each is from the lateral of the same row on its side, and the smallest of the eight.

The *legs* are rather strong, a little paler in colour than the cephalothorax, and moderately long, their relative length being 4, 1, 2, 3; they are furnished with hairs, and those of the third and fourth pairs with spines, chiefly on the tibiæ and metatarsi; each tarsus terminates with two strongly curved toothed claws, beneath which is a slight claw-tuft or scopula.

The *palpi* are similar in colour to the legs, except the digital joint, which is dark reddish brown; they are furnished with a few hairs and spines, and are of moderate length and rather strong; the cubital and radial joints are short; the latter is the shortest and has its fore extremity on the outer side produced into a long, slightly curved, gently tapering, deep-red-brown glossy apophysis of double the length of the joint itself, and ending in a point not far from the end of the digital joint. This apophysis in its length and simple form is a very marked feature, and makes the determination of the male of this species an easy matter. The digital joint is large, of an oval form, and exceeding in length the radial and cubital together. The palpal organs are well developed, and rather complex, and from a strongish lobe on their outer side near the middle issues a prominent, rather corkscrew-shaped, sharp-pointed spine.

The *falces* are not large, but straight, very slightly projecting, and similar in colour to the cephalothorax.

The *maxillæ* are rather long, strong, especially at the insertion of the palpi, broadly and strongly impressed in a transverse direction, curved, and inclined towards the *labium*, which is rather long, being two thirds the length of the *maxillæ*, of an oblong form, and rounded at the apex. These parts are rather darker in hue than the cephalothorax.

Sternum similar in colour to the cephalothorax, glossy, and of an oval form, rather pointed behind.

The *abdomen* is about equal in length to the cephalothorax; it is rather broad, somewhat truncate before, but broadest, and rounded, behind; its convexity above is not great, and it scarcely projects at all over the base of the cephalothorax; it is of a dull mouse-coloured black hue above, thinly clothed with hairs; six short pale line-like spots in three pairs form two curved longitudinal lines of three spots each near the middle of the upperside, the curves being directed inwards and towards each other; analogous spots are observable in many other *Drassi*, especially in *D. troglodytes*; the underside of the abdomen is of a paler hue than the upperside. The spinners are six in number, brownish yellow and of moderate size, those of the inferior pair being the longest and strongest.

The female resembles the male in colours. The form of the genital aperture is very characteristic, but not easily described; reference to the figure (Plate LI. fig. 14 c) will give a good idea of its distinctive form.

Two adult males and one female were found under stones, within the old-castle area at Smyrna, by myself in May 1865.

DRASSUS HEBES, sp. n. (Plate LI. fig. 15.)

Adult male, length 3 lines.

The *cephalothorax* of this species is of an oblong-oval form, truncate at each extremity; the hinder slope is short and rather abrupt, and the caput slopes forward slightly from just behind the eyes, the intermediate profile-line being level; its colour is yellow-brown, deepening in the ocular region; and it is thinly clothed with fine hairs; there is only the slightest possible lateral constriction on each side at the caput; but the normal grooves and indentations are fairly marked and indicated by darker yellow-brown converging lines.

The *eyes* are not very large, they are placed in two slightly curved and almost parallel transverse rows on the fore part of the caput, but not occupying more than half its width; as looked at from above and behind, the curve of these rows is directed backwards. The eyes of the hind central pair are oval, oblique, very near together, but not contiguous; each lateral eye of the hinder row is separated from the central of the same row nearest to it by a space about equal to the longest diameter of the latter; the front row is shorter than the hinder one, and the four eyes composing it are, apparently, equally separated from each other; if any thing the interval between the fore centrals is a little greater than that between each and the fore lateral nearest to it; those of each lateral pair are divided by an interval about equal to the diameter of the hind lateral; the fore centrals are

dark-coloured and slightly the smallest of the eight: the rest are pearly white; each of them is separated from the hind central eye nearest to it by an interval equal to its own diameter; and the height of the clypeus is as nearly as possible (in the middle) equal to a similar interval.

The *legs* are not very long, but rather strong; their relative length is 1, 4, 3, 2; they are of a pale dull yellow-brown colour, furnished with hairs and a few spines on those of the third and fourth pairs; each tarsus ends with two curved pectinated claws, beneath which is a small claw-tuft; and the hairs beneath the tarsi are numerous, short, and tolerably compact.

The *palpi* are short but moderately strong; the radial is slightly shorter than the cubital joint and has its outer extremity prolonged into a strong apophysis as long, or nearly so, as the joint itself; this apophysis tapers at first, but enlarges again near its extremity, which is obliquely truncate. The colour of the palpi is like that of the legs, and they are furnished with hairs and a few spine-like bristles, but the radial and digital joints are darker; the latter joint is of ordinary oval form and rather longer than the radial and digital joints together. The palpal organs are simple.

The *falces* are rather short, straight, strong, slightly projecting forwards, and prominent near their base in front; their colour is a dark red-brown, and they are furnished with strong prominent black bristles.

The *maxillæ* are strong, curved, inclined towards the labium, broadly impressed across the middle, and obliquely truncated at their extremities.

The *labium* is oblong, and reaches to the inner extremities of the maxillæ; its colour is deep yellow red-brown, that of the maxillæ being darker.

The *sternum* is oval, pointed behind, slightly truncate before, and similar in colour to the cephalothorax.

The *abdomen** is oval, truncate before, moderately convex above; it is of a dull yellowish-white colour, clothed with dark sooty brown hairs, and numerous strong upturned black bristly hairs just beneath the fore extremity, which projects over the hinder slope of the cephalothorax. Spinners short and of a yellow-brown colour; those of the inferior pair are longer and stronger than those of the superior pair.

A single adult male was received from Mr. J. T. Moggridge, by whom it was found among the débris of an old wall, and kindly sent to me from Mentone in February 1874. In its general structure and colours it is of ordinary character; but the radial apophysis is peculiar, somewhat resembling that of *D. troglodytes* (Koch) as well as that of *D. morosus* (Cambr.) and *D. bulbifer* (Cambr.), and will serve to distinguish it at once from other species. It is a smaller Spider than *D. troglodytes*, with which, or with either of the others mentioned,

* In some other examples received since this description was written, the abdomen has several pale angular bars or chevrons (the vertices of which are directed forwards) on the hinder half of its upperside.

it can hardly be confounded, in spite of a certain resemblance in the form of the radial apophysis.

DRASSUS MACILENTUS, sp. n. (Plate LI. fig. 16.)

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

In form, colours, and general structure this species is very nearly allied to *Drassus lapidicolens*. The colour, however, of the *cephalothorax* and *legs* is less suffused with brown, being of a clearer yellow than in that species; the *abdomen* is less hairy, and (when in spirit of wine) the upperside is closely marked with slender unsteady yellow lines and spots upon a dark brown ground; these lines fade off into the pale yellowish drab colour of the underside.

The *falces* are less projecting than in *D. lapidicolens*; and the position of the *eyes* also differs, chiefly in the nearer proximity to each other of those of each lateral pair; these are barely an eye's diameter distant from each other, while in *D. lapidicolens* the interval is quite if not more than two diameters; the line formed by the eyes of each lateral pair of the latter species is also less oblique than in the one now under consideration, the length of the two lines formed by all the eyes of this species being more nearly equal in length; the eyes of *D. lapidicolens* are also smaller than those of the present species.

The genital aperture is exceedingly small and simple, consisting merely of two small oval blackish-edged openings, placed rather obliquely near each other, their longitudinal diameter running parallel to the length of the abdomen.

A single adult female of this Spider was contained in the collection made for me in Bombay by Col. Julian Hobson.

DRASSUS CAMPESTRATUS, sp. n. (Plate LI. fig. 17.)

Adult male, length $2\frac{3}{4}$ lines.

The *cephalothorax* of this Spider is oval, more pointed before than behind; the caput is small, and the lateral constriction where it unites with the thorax is slight; it is of a flattened form and is only a little higher at the thoracic junction than at the eyes, and is thinly clothed with hoary grey hairs; the normal lateral indentations are indicated by dark brown stripes, which run into a strong marginal band of the same hue, the middle portion of the cephalothorax being of a paler yellow-brown colour.

The *eyes* are rather large, in two almost equally curved rows, the convexity of the curves being directed away from each other, forming an oval figure; the front row is rather the longest, and the eyes which compose it are about equally separated from each other, the intervals being each, as nearly as possible, equal to the diameter of one of the hind central pair; these are of an oval form and placed slightly obliquely. The lateral eyes of the hinder row are rather larger than the central; those of the fore central pair are round and the largest of the eight; they are separated from each other by no more than half of an eye's diameter, and form a line rather longer than that formed by the eyes of the hind central pair. The fore lateral eyes

are oval, slightly oblique, about equal in size to those of the hind central pair, and each is contiguous to the fore central eye on its side; the interval between the eyes of each lateral pair is equal to half the diameter of one of them. All the eyes are pearly white, except those of the fore central pair, which are dark. The height of the clypeus is rather less than the diameter of one of the fore central eyes and is equal to about one fourth of that of the facial space; the interval between each fore central eye and the hind central opposite to it is equal to the diameter of the former.

The *legs* are strong, especially in the femoral joints, and moderately long; their relative length appeared to be 4, 1, 2, 3; but the difference is not great; they are of a yellow-brown colour, not quite so dark as the cephalothorax; they are furnished, but not thickly, with hairs and spines, and beneath the two terminal claws on each tarsus is a small tuft of squamose or papilliform hairs.

The *palpi* are moderately strong, but not very long; the cubital joint is short; the radial is about equal in length, but is gradually produced on its outer side into a long tapering process, somewhat bluntly but angularly enlarged beneath towards its extremity, which terminates with a sharply curved spinous point; the angular enlargement gives it the appearance, in some positions, of being somewhat bifid at its extremity. The digital joint is large, and of a pointed oval form; its length equals that of the cubital and radial joints together (including the apophysis of the latter).

The *falces* are moderate in length, nearly vertical, and rather slender; these with the maxillæ, labium, and sternum, which are all of normal structure, are of a yellow-brown colour, rather paler than that of the cephalothorax.

The *abdomen* is of moderate size, and of an oblong-oval rather flattened form; on the fore half of the upperside is a large, yellow-brown, somewhat oval, shining, coriaceous patch, occupying nearly its whole width; this patch is pointed behind, and through its semitransparent substance may be seen the usual elongate, longitudinal, central, fusiform, dark black-brown stripe or bar; the hinder part of the upperside of the abdomen is of a pale dusky yellow-white colour, with a large black-brown patch, from the sides of which issue the ends of the normal oblique stripes or chevrons, the angles of which are lost in the black-brown patch; the sides are black-brown, and the underside dusky yellowish white. The spinners are rather long, brownish black, of nearly equal length, those of the inferior pair being the strongest and rather the longest.

An adult male of this very distinct *Drassus* was found by myself under a stone near Alexandria, Egypt, in April 1864.

DRASSUS ALEXANDRINUS, sp. n. (Plate LI. fig. 18.)

Adult male, length 4 lines.

This species is very nearly allied to *D. ægyptius* (*postea*, p. 394); it is, however, rather larger, and differs in the form of the palpal organs, while it resembles it closely in general form, structure, and colours; it differs also from *D. lapidicolens* (Walck.) in the same

particulars as those which distinguish this latter species from *D. ægyptius*, the difference, too, being similar.

The *falces* in the present Spider more nearly resemble those of *D. lapidicolens*, being larger than those of *D. ægyptius*, and projecting forwards instead of being nearly vertical.

The radial joint of the palpus has no apophysis from its fore extremity, and had only one or two strongish spines at its fore extremity on the inner side; others, however, may have been rubbed off. The palpal organs are similar in their general form and processes; but the curved spine issuing from their base and running round the inner margin is stronger, the corneous prominence at their fore part is longer, stronger, and curved, and, instead of three spines in a transverse row beneath the fore part of the digital joint, there is in the present species only one strong spine.

On the outer margin of the palpal organs are two longitudinal parallel reddish-brown lines, which rather converge and become serpentine or strongly convoluted at the hinder extremity.

A single adult male was found by myself among the débris of a wall near Alexandria, in April 1864.

DRASSUS ÆGYPTIUS, sp. n. (Plate LII. fig. 19.)

Adult male, length $3\frac{1}{2}$ lines; adult female, length $4\frac{1}{2}$ lines.

This species is very nearly allied to the well-known *D. lapidicolens* (Walck.). It is, however, smaller than the usual run of that species, and a paler and yellower Spider in its general colouring; the cephalothorax wants the narrow black marginal line; the spines on the legs are longer and slenderer; and the abdomen has not the longitudinal dark elongate marking on the fore half of its upperside, always more or less distinct on that of *D. lapidicolens*. The *falces* also, which are long and porrected in that species, are much shorter in the present and nearly vertical.

A strong distinguishing character is (as usual) presented by the palpi and palpal organs of the male: the radial joint has its upper-side furnished with some long slender spines; but it is destitute of any projection or apophysis at its fore extremity, which is a little broader than its hinder portion. The digital joint is narrow and elongate. The palpal organs, which occupy about half the length of its under-side, consist of a nearly round pale lobe; from near the inner side of the hinder extremity of this lobe a slender tapering black spine issues and curves round the outer margin in rather close contact with it, terminating in a fine point near its fore extremity; on the face of the lobe near the fore part is a very small blackish-brown tubercular eminence or short blunt spinous prominence; and from its outer extremity before issues an obtusely ending prolongation directed inwards; beneath the fore extremity of the digital joint, near the palpal organs, are three conspicuous and characteristic black spines, directed forwards and placed in a transverse line.

The *eyes* are very similar, both in size and position, to those of *D. lapidicolens*; those, however, of the foremost row are rather nearer the fore margin of the caput, leaving a narrower clypeus than in that species.

The whole of the fore part, including the legs and palpi, is of a pale uniform straw-colour, thinly clothed with silky hairs, the abdomen being a little darker and duller in its hue, clothed with yellowish fine hairs, some coarse bristly ones being turned upwards over the fore part. The female resembles the male in colour and general characters, but is larger, and the form of the genital aperture is characteristic.

The legs (in both sexes, but most conspicuously in the female) terminate with a small claw-tuft beneath the terminal tarsal claws, and a scopula beneath the whole length of the tarsi and metatarsi.

An adult example of each sex was found under stones at Alexandria, Egypt, by myself, in April 1864.

DRASSUS ASTROLOGUS, sp. n. (Plate LII. fig. 20.)

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

The whole of the fore part of this Spider is of a brightish yellow colour, the *falces* being slightly tinged with reddish brown, and the abdomen being of a dull pale whitish yellow.

The *cephalothorax* is of ordinary form, but rather short and small in proportion to the abdomen, which is more than double its length; the normal grooves and indentations are slightly dusky, and a short red-brown line indicates the thoracic junction; the height of the clypeus is less than half that of the facial space.

The *eyes* are placed in two transverse curved rows (the curve directed backwards); the front row is the shortest and least curved; the eyes of the hinder row are as nearly as possible equidistant from each other; those of its central pair are oval, but not oblique; the eyes of the fore central pair are the largest of the eight, round, and separated from each other by half of an eye's diameter; these are dark; all the rest are pearly white, but have black veins; each fore lateral eye is, as nearly as possible, contiguous to the fore central nearest to it; the interval between the eyes of each lateral pair is equal to about half the diameter of the hinder one; the four central eyes form a trapezoid whose transverse is less than its longitudinal diameter.

The *legs* are neither very long nor strong; they are furnished with a few hairs and spines; each tarsus ends with two curved pectinated claws, beneath which is a scopula, extending backwards under a part of the tarsal joint.

The *falces* are of ordinary form, but small, vertical, and a little prominent near their base in front.

The *maxillæ*, *labium*, and *sternum* are of normal form.

The *abdomen* is large, oval, and considerably convex above. It is of a uniform dull pale whitish yellow colour, clothed with but few hairs, scarcely any unless they had been rubbed off. On the fore half of the upperside are the usual six impressed spots, not very distinct, in two opposed longitudinal curved rows of three each. The spinners are tolerably long, those of the inferior pair being the strongest; the genital aperture is yellow-brown in colour, simple, of tolerable size, and of a somewhat oblong form.

Two adult females were received from Bombay in a collection (before alluded to) made for me by Major Julian Hobson, Staff Corps.

DRASSUS LURIDUS, sp. n. (Plate LII. fig. 21.)

Adult male, length 3 lines; adult female, length 4 lines.

This species is nearly allied to *D. vulpinus* (*postea*), but is destitute of the silky yellow-grey pubescence with which that and other species are clothed. The whole of the fore part is yellow, tinged with red-brown, the *falces* and *labium* being rather darker.

The *cephalothorax* is glossy, of ordinary form, with the normal grooves and indentations fairly marked, and a few fine yellowish hairs here and there; perhaps more of them may have been rubbed off. The height of the clypeus is rather less than half of that of the facial space.

The *eyes* are in two transverse curved rows, the curves directed backwards; those of the hinder row, which is longest and much the most curved, are equally separated from each other; those of the central pair of this row are oval and oblique, and, as well as those of the lateral pairs, of a pearly white colour; the eyes of the fore central pair are large, round, and dark-coloured, and separated by an interval of half an eye's diameter, and each is as nearly as possible contiguous to the lateral of the same row on its side.

The *legs* are rather long and strong; their relative length is 4, 1, 2, 3; they are furnished with hairs and spines, the latter chiefly on those of the two hinder pairs; and each tarsus terminates with two curved claws, beneath which is a scopula, which extends backwards beneath the tarsal joint.

The *palpi* are moderate in length and strength, and of the same colour as the legs. The radial is a little shorter than the digital joint, and has a group of some longish hairs beneath its fore extremity as well as others above, and at its outer extremity is a strongish apophysis, which terminates obliquely and in a point on its upper-side; the digital joint is of moderate size, darker in colour and rather less in length than the radial and digital together, and of a narrow oval form. The palpal organs are well developed, but simple, consisting of a large oval corneous lobe, with a kind of marginal fillet on the outer side, and a small curved sharp-pointed spine at their inner extremity.

The *falces* are moderate in length and strength, they project forwards and are a little prominent at their base in front.

The *maxillæ*, *labium*, and *sternum* are of ordinary form.

The *abdomen* is small, oval, and of a pale yellowish colour, suffused more or less with blackish behind; on the fore half of its upperside is a longish wedge-shaped, dull, indistinct marking, on either side of the hinder half of which are three dark punctures, forming a slightly curved line on each side, similar to corresponding punctures in many others of this family. The spinners are long; those of the inferior pair are just about double the length and strength of those of the superior pair.

The *female* resembles the male in colours and markings; the relative length of the spinners, however, differs, those of the superior pair being longer and stronger in proportion to the inferior ones, the length of the former being but a very little less than that of the latter; the genital aperture is not very large, but of very simple though characteristic form (*vide* Plate LII. fig. 21, c).

An adult example of each sex was contained in the collection of Spiders received from Bombay from Major Julian Hobson, Staff Corps.

DRASSUS VULPINUS, sp. n. (Plate LII. fig. 22.)

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

This fine species belongs to the group which includes *D. sericeus* (Bl.), to which it is nearly allied.

The *cephalothorax* (which is of ordinary form), and also the *legs* and *palpi*, are of a foxy yellow-brown, clothed with fine silky adpressed hairs or pubescence of a yellowish-grey colour.

The *falces*, *maxillæ*, *labium*, and *sternum* (all of which are of ordinary form) are darker-coloured than the cephalothorax, and furnished, in addition, with black prominent bristly hairs. The *abdomen* is of a dull brownish-yellow colour, thickly clothed with silky yellow-grey hairs, mixed with coarser black ones.

The *eyes* are in two curved rows; the hinder row is the most strongly curved, the curve directed backwards; and the front row, looked at from above and behind, is curved the same way, but less strongly; the lateral eyes (on either side) are separated from each other by an interval about equal to the diameter of the fore lateral eye; the eyes of the hind central pair are bright pearly white, oval, oblique, and rather nearer together than each is to the lateral on its side; those of the fore central pair are round and about half of an eye's diameter apart, each being also separated by an equal distance from the lateral on its side.

The *legs* are tolerably long and strong; relative length 4, 1, 2, 3; and besides a yellow-grey pubescence, they are furnished with other hairs and strong spines, the latter mostly on those of the two hinder pairs. Each tarsus ends with two curved pectinated claws, beneath which is a strong scopula extending over the lower side of the greater part of the tarsal joint.

The *palpi* are short, strong, and similar in colour and armature to the legs; the hairs at the end are rather dense and prevented my seeing the terminal claw, which, if present, must be very short.

The *abdomen* is oval, and projects well over the base of the cephalothorax; its colour and clothing have been remarked upon above. The spinners are yellow-brown in colour, longish, and prominent; those of the inferior pair are the strongest and rather the largest. The genital aperture is of moderate size and simple form, with a deep red-brown corneous margin (*vide* Plate LII. fig. 22).

A single adult example of the female was found by myself in an old building at Cairo in April 1864.

DRASSUS FERRUGINEUS, sp. n. (Plate LII. fig. 23.)

Adult female, length $4\frac{1}{4}$ lines.

The whole of the fore part of this Spider is of a rusty yellow-brown colour, the *falces*, *maxillæ*, *labium*, and *sternum* being rather the darkest—the *falces* and *labium* indeed being of a darkish red-brown, the abdomen being pale dull yellow.

The *cephalothorax* is of ordinary form, but rather small and short in proportion to the length of the abdomen, and it is sparingly dotted with fine hairs; the normal furrows and indentations are slightly marked, but are of a deeper hue than the rest of the surface. The height of the clypeus is less than half that of the facial space.

The *eyes* are in the usual position; they are in two equally curved transverse rows, the ends of which converge on each side but do not meet; the four central ones form a trapezoid, whose transverse is less than its longitudinal diameter; those of the hind central pair are oval, oblique, and separated by an interval about equal to the longest diameter of one of them; the interval between each of these and the hind lateral on its side is greater than that between the two centrals; those of the foremost row appeared to be equally separated from each other.

The *legs* are short, moderately strong, furnished with hairs and a few black spines, these last almost all on the two last pairs; each tarsus ends with two curved, toothed claws, beneath which is a scopula which extends backwards underneath the joint; their relative length is 4, 1, 2, 3.

The *falces* are neither very long nor strong, but they project a little forwards and are of ordinary form.

The *maxillæ*, *labium*, and *sternum* present no deviation from the normal characters of the genus.

The *abdomen* is of an elongate oblong-oval form, very sparingly clothed with hairs, and of a uniform dull yellowish colour. Spiracular plates yellow and not very large. Genital aperture small, but, as usual, of characteristic form (*vide* Plate LII. fig. 23). The spinners are moderate in length and strength; those of the inferior pair are the longest and strongest.

A single example of the adult female of this species was contained in the collection of Spiders kindly made for me in Bombay by Major Julian Hobson, Staff Corps.

DRASSUS DENOTATUS, sp. n. (Plate LII. fig. 24.)

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

The general form and structure of this Spider are of the ordinary character; but the markings on the abdomen are distinct and characteristic, as also is the form of the genital aperture.

The *cephalothorax* is pale yellow-brown thinly clothed with hairs; the caput is a little more convex than usual, and it is divided behind from the thorax by two fine blackish converging lines, divided at the point of convergence by another longitudinal central one. The height of the clypeus is less than half that of the facial space, being about equal to the diameter of one of the fore central eyes.

The *eyes* are of tolerable size and in the usual position; but the curve of each row is nearly equal, making the two rows almost parallel; the hinder row is the longest, and its two central eyes are large, pearly white, and very nearly contiguous to each other, the lateral on either side being separated from them by about the diameter of one of the centrals; the fore centrals are also large, but not quite so large as the hind centrals, though forming a line of the same length, the interval between them being rather more than half of the diameter of one of them; the eyes of each lateral pair are separated from each other by an interval of about the diameter of one of them.

The *falces* are moderate in length and strength; they are prominent at their base in front, projecting forwards, and are of a dark yellow-brown colour.

The *legs* are rather short, moderately strong, furnished with hairs and spines, the latter chiefly on the two hinder pairs; their relative length is 4, 1, 2, 3, and they are of a yellow colour.

The *palpi* are similar to the legs in colour, deepening to yellow-brown on the radial and digital joints, and they are furnished with hairs and a few black spines.

The *maxillæ* and *labium* are of normal form; the former is yellow-brown, the latter considerably darker.

The *sternum* is oval, pointed behind, and similar in colour to the cephalothorax.

The *abdomen* is oval, rather truncate before, where it projects a little over the base of the cephalothorax; it is thinly clothed with hairs, and of a dull brownish black hue, speckled and marked with pale yellowish: on the upperside a dusky, elongate, tapering or wedge-shaped marking occupies the central longitudinal line of the fore half: on either side of the hinder or pointed end of this marking are two small, pale, elongate spots; and following it, towards the spinners, in a longitudinal series, are 6 or 7 transverse angular bars or chevrons of a pale dull yellow colour; and the vertex of each of these runs into the angle of the one preceding it. The dark ground-colour of the abdomen is disposed in parallel striæ towards and on the sides; and the intervals between the yellowish angular bars themselves form dark broken chevrons. On the underside are two longitudinal and rather pale yellowish lines, which converge at a little distance from the spinners; and at the extremity of these lines on either side is a curved row of three round pale yellowish spots, more distinct than the rest. The spinners are moderate in length and strength, those of the inferior pair being the longest, and their colour is similar to that of the legs. The genital aperture is large and of peculiar form (*vide* Plate LII. fig. 24).

A single adult female was found by myself at Cairo.

DRASSUS PUGNAX, sp. n. (Plate LII. fig. 25.)

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

The *cephalothorax* of this species is short, oval, rather more pointed before than in many others of the genus, but in other

respects of normal form ; it (as well as all the rest of the fore part of this Spider) is of a rather bright yellow-brown colour, clothed, but not at all densely, with greyish-yellow pubescence, and some prominent black bristly hairs in the ocular region ; the normal grooves and indentations are not strong, but are well indicated by being of a rather deeper hue than the rest.

The *eyes* are in the ordinary position, two transverse curved rows ; the front row is the most curved, the hinder one being very nearly straight ; the lateral eye of each row is nearer to the opposite lateral eye of the other row than the central eyes of the one are to those of the other ; the eyes of the hinder row are equidistant from each other and of about equal size ; those of the front row are large, all larger than those of the hinder one, and the fore central pair much the largest of the eight ; each of these latter is very nearly contiguous to the lateral of the same row on its side, and they are separated from each other by nearly about half of an eye's diameter.

The *legs* are strong, especially the femoral joints, and moderately long, their relative length being 4, 1, 2, 3 ; they are furnished with hairs, spines, and bristles ; and each tarsus ends with two curved claws, beneath which is a claw-tuft or scopula.

The *palpi* are pretty strong, but not very long. The radial and cubital joints are short ; the former is rather the shortest but strongest, and has its outer extremity produced into a long and strong apophysis ; this is a little tapering at first, but has its extremity divided into two very peculiar and distinct limbs ; one of these (the upper one) is strongly bent inwards and sharp-pointed, the other obtuse and straighter. The digital joint is large, of the ordinary oval form, and of a darker hue than the rest of the joint. The palpal organs are well developed but simple, having some longitudinal, parallel, dark, sinuous markings on the surface of the principal corneous lobe, and a small curved corneous process at their fore extremity ; the humeral joint has three curved, black, spine-like bristles near its fore extremity on the upperside ; two are near the margin, and the third a little way behind.

The *falces* are vertical and not very long nor strong ; the *maxillæ*, *labium*, and *sternum* are of normal form.

The *abdomen* is oval, rather truncate before, and projecting over the base of the cephalothorax ; it is of a uniform pale brownish-yellow hue, clothed sparingly with fine yellowish-grey hairs ; and on the fore part of the upperside is a large bright yellow-brown patch of a shining semicorneous nature, similar in colour to the cephalothorax and other fore parts ; this patch is of a curvilinear, tapering form ; and along its centre is indistinctly visible an elongate tapering, and rather darker marking, the sharp point of which extends beyond its hinder and pointed extremity : also on the fore part of the upperside of the abdomen are four impressed spots or dark punctures in an oblong quadrangular figure ; the foremost pair of these spots are rather obscured by the shining patch above described. The spinners are yellow-brown, rather long and strong, those of the inferior

pair stronger and about one third longer than those of the superior pair. The spiracular plates are very nearly of the same colour as the rest of the abdomen, and, like it, clothed with hairs.

A single adult male of this Spider was found by myself among débris of an old wall at Cairo. It may be distinguished easily by the peculiar form of the radial apophysis, and large size of the fore central pair of eyes.

Genus MICARIA (Westr.).

MICARIA ARMATA, sp. n. (Plate LII. fig. 26.)

Adult female, length $1\frac{3}{4}$ line.

This exceedingly brilliant little Spider belongs to a group of the genus *Micaria* whose eyes are in the position of those of the genus *Gnaphosa*, and the abdomen connected with the cephalothorax by a distinct pedicle. M. Lucas has described two species of this group, in his work on Algerian Spiders, in the genus *Drassus*. Dr. L. Koch has, in his work on the Drassides, included these species as (to him) unknown species of the genus *Gnaphosa*, probably so allocating them from the strongly marked position of the eyes. I cannot, however, find any difference in the form of the maxillæ from *Micaria*; and the whole appearance, form, and brilliancy of colouring (in the present instance) connects these Spiders unmistakably with *Micaria* rather than with *Gnaphosa*.

Micaria armata may be distinguished at once by the palpi as well as the tibiæ and metatarsi of the legs of the first pair being armed with long, strong spines.

The *cephalothorax* is oval, rather narrow before, and but slightly constricted laterally at the caput; it is of a brownish-yellow colour, the caput being dark brown, the whole clothed with scaly hairs reflecting the most brilliant metallic tints of gold, violet, purple, and green.

The *eyes* are in two transverse, rather widely separated, curved rows, the curves directed towards each other; the foremost row is much the shortest, and the eyes composing it are almost, but not quite contiguous to each other; the laterals of this as well as of the hinder row are larger than the centrals; the hind centrals are oval, oblique, and further from each other than each is from the lateral of the same row on its side; the eyes of each lateral pair are as widely separated from each other as the lateral eyes of the foremost row. The height of the clypeus is equal to the space between the fore and hind central pairs of eyes.

The *legs* are long and slender; their relative length appeared to be 4, 1, 2, 3; they are of a pale yellow colour, with a strong longitudinal black stripe on the femora of the 2nd, 3rd, and 4th pairs, the lower part of those of the first pair being black: beneath the metatarsi and tibiæ of the first pair are some long, strong, prominent, divergent spines, apparently articulated to small tubercles; one pair of these are beneath the metatarsi, two pairs beneath the tibiæ, and a single one issuing from a black spot inside each of the femora; besides these spines the legs are only furnished, and that sparingly, with hairs.

The terminal tarsal claws are two in number, minute, and without any claw-tuft beneath them.

The *palpi* are strong, rather long, of a dull blackish colour, and on the inner side of the three last joints (cubital, radial, and digital) there are several longish strong spines pointing inwards; when the palpi and fore legs are drawn back in an attitude of defence, these spines form a sort of *chevaux-de-frise* over the fore part of the caput, and are very conspicuous.

The *falces* are rather long, strong, and a little inclined backwards towards the labium; they are of a yellow-brown colour, and furnished with strong bristly hairs.

The *maxillæ* are rather long, strong, slightly dilated at their extremities, inclined towards the labium, and broadly and transversely impressed across the middle.

The *labium* is broader at the base than at the apex, which is rounded; the colour of this part, as well as of the *maxillæ*, is a pale dull yellow-brown.

The *sternum* is elongate-oval, sharp-pointed behind, truncate in front, and of a darker colour than the *maxillæ* and labium.

The *abdomen* is joined to the cephalothorax by a distinct pedicle or short wasp-like waist; it is of an oblong-oval form, strongly constricted over the middle of the upperside, the constriction marked by a yellowish band clothed with whitish hairs; the fore half of the upperside is divided longitudinally by a broad yellowish band, the remainder, as well as the hinder half, is dark blackish brown, the whole clothed with scaly hairs reflecting similar metallic tints to those on the cephalothorax; on each side of the fore part is an ill-defined oblique stripe or patch of a yellowish colour, clothed with whitish hairs; the underside is pale yellowish, but darker near the spinners, and also clothed with iridescent hairs. The *spinners* are small, those of the inferior pair being the strongest; close above the anal tubercle is a small compact tuft of white hairs. The genital aperture is small, inconspicuous, and very simple in form.

Two immature females of this beautiful and most interesting little Spider were found at Hyères, in France, in May 1873, and kindly given me by Mr. J. T. Moggridge, who has since found four other examples (all females), one only being adult, at Mentone; these also Mr. Moggridge has kindly sent to me. The immature examples have a paler hue and a more brilliantly purple and golden tinge than the adult; the spines on the fore legs and palpi are exceedingly characteristic.

Genus PHRUROLITHUS, C. Koch.

PHRUROLITHUS GRACILIPES (Blackw.). (Plate LII. fig. 27.)

Drassus gracilipes, Bl. Ann. & Mag. Nat. Hist., Oct. 1863.

Drassus romanus, L. Koch, Die. Arachn.-Fam. der Drassiden, p. 225 (1866).

An immature male of this Spider, from near Lisbon, was described as a *Drassus* by Mr. Blackwall (*loc. cit. supra*), and an immature female by Dr. L. Koch, three years later, from Rome, as a *Phrurolithus*.

Several immature examples were found by myself under stones among the ruins of the Baths of Caracalla in February 1865; and more recently I have received an adult example of each sex from Spain: these do not differ from the immature examples described by Mr. Blackwall and Dr. L. Koch in colours and markings and general characters; the male, however, has the upper surface of the abdomen shining and coriaceous, and the double row of long strong sessile spines beneath the tibiæ and metatarsi of the first and second pairs is very conspicuous.

The *palpi* of the male are of a deep black-brown colour, but neither very long nor strong; the radial joint is about the same length as the cubital, and has its fore extremity produced over the base of the digital joint into a longish, tapering, curved, sharp-pointed apophysis. The digital joint is large and exceeds in length the radial and cubital joints together; it is of an oblong-oval form, and its extreme point obtuse. The palpal organs are simple, consisting of a roundish lobe, from near the middle of which a corneous tapering spiny process runs backwards and round the inner side and fore extremity.

The colour of the *cephalothorax* is deep black-brown, and in both sexes is furnished with some short iridescent hairs. The *legs* are long and slender, of a black-brown colour, getting lighter towards their extremities. The tarsi, as well as a small portion at the fore extremity of each tibia, are of a pale yellow colour; this is most marked in the female. The spines beneath the tibiæ and metatarsi have been before referred to. Each tarsus ends with two claws, springing from a small supernumerary or heel-joint; and beneath them is a very small scopula.

The abdomen of the female is black, with an oblique whitish line on each side at the fore extremity, and a transverse, slightly curved, white line or narrow bar a little way above the spinners; this white line was almost imperceptible in the adult male, but very conspicuous in the female; on the upper surface of the abdomen of this sex are a few short iridescent hairs. The form of the genital aperture, shown in the figure, is characteristic.

Genus CHEIRACANTHIUM (Koch).

CHEIRACANTHIUM DUBIUM, sp. n. (Plate LII. fig. 28.)

Adult male, length 3 lines.

This Spider is of great interest, approaching so nearly as it does to the genera *Drassus* and *Clubiona*. Were it not that the relative length of the legs differs from that of those genera and coincides with that of *Cheiracanthium* (1, 4, 2, 3, instead of 4, 1, 2, 3), I should have been inclined to describe it as a *Clubiona*.

The whole of the fore part is of a dull-orange yellow-brown colour, the falces being rather darker than the rest. The abdomen is of a flattish oval form, rather truncate at its hinder extremity; its colour is a pale straw-yellow; an elongate-oblong, central, longitudinal, dull brown marking occupies the fore half of the upperside; this is followed towards the spinners by several angular bars or chevrons (of the

same colour), whose angles are obsolete, the ends of the bars only remaining; the sides are also marked with a few short irregular similarly coloured lines and spots; on either side of the longitudinal bar on the fore half are three small but conspicuous reddish-brown spots, forming a slightly curved line. The spinners are long and cylindrical; those of the inferior pair slightly curved, longest, and strongest; those of the superior pair 2-jointed.

The form of the *cephalothorax* is more elongate than in *Cheiracanthium* generally; it is oval, with the lateral constriction at the caput very slight, and the fore part moderately narrow; the normal grooves and indentations are marked by dusky converging lines.

The *eyes* are of moderate size, in two transverse curved rows, the eyes of each of which respectively are equidistant from each other; the four central eyes form a quadrangular figure, whose hinder side is rather the longest; the eyes of each lateral pair are placed obliquely but are not contiguous to each other. The clypeus appears to be about equal in height to the diameter of one of the fore central eyes.

The *legs* are moderately long and tolerably strong; their relative length is 1, 4, 2, 3; and the genual joints are longer than usual; they are furnished very sparingly with hairs and a few spines; each tarsus ends with two curved pectinated claws, beneath which is a very small claw-tuft.

The *palpi* are not very long, but tolerably strong. The cubital and radial joints are about equal in length; the latter is bent and has at its extremity on the outer side a rather prominent, slightly curved, tapering, sharp-pointed, red-brown, spine-like apophysis; and near the extremity on the inner side are two spines, one nearly upright, the other shorter but bent and directed forwards. The digital joint is dark yellow-brown, oval, pointed before, but not drawn out as in other species of this genus; it is about equal to, or perhaps a little longer than the radial joint; the normal spur from the hinder part is obsolete, represented only by a slight prominence. The palpal organs consist of a principal oval lobe broken up at its fore part into several corneous processes, among which is a strongish one, somewhat in the form of an S crook.

The *falces* are moderately long, tolerably strong, projecting and prominent towards their base in front.

The *maxillæ* are strong, of an oblong form, rather broadest at their extremities, straight but slightly inclined to the *labium*, which is half the length of the maxillæ, and of a short, oblong-oval form.

The *sternum* is of the ordinary heart-shape, with a slight eminence opposite the articulation of each pair of legs.

A single adult male of this species was found by myself near Alexandria (Egypt), in April 1864.

CHEIRACANTHIUM EQUESTRE, sp. n. (Plate LII. fig. 29.)

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

The *cephalothorax* of this species is of a yellowish colour; it is longer in proportion to its breadth than in many others of the genus, and the lateral constrictions of the caput are stronger, the caput

being thus rather narrower and more drawn out ; the normal indentations are not very strong, but are well indicated by converging dusky radii.

The *eyes* are rather larger than usual, but in the ordinary position, and seated on black spots, and form two transverse curved rows, occupying the entire width of the fore part of the caput ; the curves are directed away from each other, that of the hinder row being the strongest. The clypeus is almost obsolete, the edge of the fore central eyes almost touching the fore margin of the caput. The eyes of the hind central pair are rather nearer to each other than each is to the hind lateral on its side ; and a similar relative position is observable in regard to the eyes of the front row. The interval between each fore central eye and the hind central nearest to it is less than the diameter of the latter ; the fore centrals are largest of the eight ; the eyes of each lateral pair are seated obliquely on a tubercle very near but not contiguous to each other.

The *legs* are rather long and moderately strong ; their relative length is 1, 4, 2, 3 ; they are of a slightly lighter-coloured yellow than the cephalothorax, furnished sparingly with hairs and a very few spines ; each tarsus ends with two claws, beneath which is a compact blackish claw-tuft.

The *palpi* are not very long, but moderately strong. The radial joint is scarcely double the length of the cubital ; it is cylindrical, and has its outer fore extremity prolonged into a tolerably strong, tapering, sharp-pointed, bicurved apophysis, of a dark reddish-brown colour, equal to half the joint in length ; the inner side of the fore extremity also has a small prominence or apophysis. The digital joint is rather large, and equal in length to the radial and cubital joints together ; it is of a dark blackish yellow-brown colour, prominent at the middle of the outer side, and hairy ; the fore part is produced and tapering, like that of nearly all the known species of *Cheiracanthium*, though not so elongated as in some others. The normal spur directed backwards from the outer side of the hinder extremity is strongly bent downwards and directed outwards ; it contracts rather abruptly towards its extremity, terminating in a fine, sharp-pointed, red-brown, corneous-looking spine. The palpal organs are of the ordinary form and simple structure, and are almost encircled by a slender, tapering, sharp-pointed spine, which issues from near the middle of their outer side.

The *falces* are neither very long nor strong ; they are straight, projecting, not divergent, and of a yellow-brown colour. The maxillæ and labium are of normal form and structure and rather lighter-coloured than the falces.

The *sternum* is pale yellow and very glossy.

The *abdomen* is oval, considerably convex before, and rather sloping down towards the hinder part ; its fore part projects a good deal over the base of the cephalothorax ; its upper surface is yellowish white, as if covered with confluent cretaceous-looking spots. On the fore half of the upperside is the ordinary elongate macula of a dull dark mouse-coloured brown hue ; the sides of this macula are

slightly angulate; and there is a prominent point or spot of the same hue about the middle of each side. The sides and underside of the abdomen are similar to the upperside; the sides, however, are tinged forwards with reddish yellow-brown, and the underside has a strongish, longitudinal, central band of a mouse-coloured brown.

The spinners are rather short, those of the inferior pair much the strongest, those of the superior pair exceeding them in length by the very short second joint of the former.

An adult female differed in being rather larger, paler-coloured, and the abdomen less strongly marked. The *falces* also appeared to be less projecting, and the legs are shorter and stronger. The genital aperture is small, of a somewhat semilunar form, margined with red-brown.

An adult example of each sex was found by myself on low plants near Cairo, in January 1864.

CHEIRACANTHIUM INORNATUM, sp. n. (Plate LII. fig. 30.)

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

The *cephalothorax*, *legs*, *palpi*, and *sternum* of this Spider are yellow, the *falces* deep red-brown, the maxillæ and labium being of a lighter and duller red-brown hue. In general form and aspect it is of the ordinary type. The cephalothorax is covered pretty densely with fine, pale, silky hairs; it is short, broad, slightly constricted laterally at the caput, whose fore margin is squarely truncated; and the ocular region is somewhat suffused with reddish brown.

The *eyes* are small, in the ordinary position, and occupy nearly the whole width of the fore part of the caput. The clypeus is scarcely equal to the diameter of one of the fore central eyes. The eyes of the front row form a straight line, shorter than the hinder row, which is curved, the curve directed backwards. The eyes of the hind central pair are rather nearer to each other than each is to the lateral of the same row on its side; and the same relative position is observable with respect to the eyes of the front row. The fore centrals are the largest of the eight; they form a line shorter than the hind centrals, and each is separated from the hind central opposite to it by an interval about equal to the diameter of the latter; those of each lateral pair are seated on a tubercle contiguous to each other and in a slightly oblique line.

The *legs* are long and slender; their relative length is 1, 4, 2, 3; they are furnished with hairs, and a few not very long nor strong dark brown spines. Each tarsus ends with two claws and a compact blackish claw-tuft.

The *palpi* are not very long nor strong. The cubital joint is short; and the radial is rather more than double its length, cylindrical, and its outer extremity terminates in a small, slightly tapering, straight, red-brown apophysis, whose point is a little bent and somewhat unguiform. The radial joint is furnished with long prominent hairs, principally on the underside. The digital joint is about equal in length to the radial; it is of ordinary form, hairy, and suffused with brown, and considerably prominent on the outer side. The normal

spur issuing backwards from the hinder extremity on the outer side is red-brown, a little bent, sharp-pointed, tapering, and thorn-like ; its length is moderate, less than half the length of the joint, and it points outwards. The palpal organs are of the usual form, and almost encircled by a tapering, sharp-pointed spine, which issues from near the middle of their outer side.

The *falces* are moderately long and strong, but less so than in many others of this genus ; they project forwards, but are straight and do not diverge laterally from each other.

The *abdomen* is not very large ; it is oval, and projects a little over the base of the cephalothorax ; it is clothed with pale silky hairs, and there are some darker prominent ones on the fore part of the upper side. The spinners are yellow and rather short ; the second joint of the superior pair is very short ; the inferior pair are much the strongest.

The female is a little larger than the male, but similar in colour and other general characters. The genital aperture is short, transverse oval, broken into at the middle of its fore side, and having a strongish yellow-brown, corneous-looking margin. The legs of this sex are also shorter and proportionally stronger than those of the male.

An adult example of each sex were found in the collection received from Bombay from Major Julian Hobson.

CHEIRACANTHUM ISIACUM, sp. n. (Plate LII. fig. 31.)

Adult male, length $3\frac{3}{4}$ lines ; adult female 4 lines.

In general form and characters this Spider is very like the European species *C. carnifex*.

The *cephalothorax* is not very convex above ; it is of a yellow colour, clothed with short, fine, pale hairs. The ocular region is strongly suffused with blackish brown ; and from each of the hind central pair of eyes an indistinct tapering stripe of the same runs backwards towards the junctional point of the thoracic segments ; the normal grooves and indentations are well marked by converging dusky stripes.

The *eyes* are on black spots in the usual position ; they are rather small, and do not differ greatly in size. The height of the clypeus is no more than half the diameter of one of the fore central pair of eyes, which are largest of the eight ; those of each row severally appeared to be as nearly as possible equidistant from each other, the four central eyes forming very nearly a square, the transverse, however, being rather longer than the longitudinal diameter ; those of each lateral pair are slightly obliquely placed on a tubercle, but not quite contiguous to each other.

The *legs* are long, moderately strong, their relative length being 1, 4, 2, 3 ; their colour is yellow, rather paler than the cephalothorax, furnished with hairs of different length and strength, and more than the ordinary number of spines ; the most characteristic of these (in the male) are a single longitudinal row of about 12 or 13, not very long, but tolerably strong, beneath the metatarsi of the fourth pair, several others with the last one of this row forming a

kind of ring round the fore extremity of the metatarsus. Each tarsus ends with two claws and a scopula between them.

The *palpi* are not very long, tolerably strong, and similar in colour to the legs, except the digital joint, which is of a dark black reddish-brown colour. The cubital joint is very short; the radial is rather less than double its length and has a longish, slightly sinuous, gradually tapering, bluntish-pointed, deep-red-brown, shining apophysis from the outer extremity, and a small rather prominent spur (or thorn-like spine) near its extremity on the upperside: this joint is furnished with slender bristles, of which those near the extremity of the underside are largest and most closely grouped. The digital joint is less narrow and drawn out than in many other species; its length is about that of the radial and digital joints together; it is prominent at the middle of the outer side; the normal projection or spur from the hinder extremity is of a corneous nature, rather long, strong, a little directed outwards, crossing the outer radial apophysis, tapering, sharp-pointed, and slightly bent inwards towards the point, and of a deep blackish red-brown colour. The palpal organs are of the ordinary form and structure, and have a blackish red-brown, tapering spine issuing from near their fore extremity on the outer side and curving round their hinder extremity.

The *falces* are tolerably long, moderately strong, straight, slightly projecting forwards, and of a deep rich red-brown colour.

The *maxillæ* are of the usual form; yellow at the base, and red-brown on the upper half; the *labium* is broadish oblong, very slightly hollow at the apex, yellow near the base, and red-brown above; in the female the apex did not appear to be hollow, but straight.

The *sternum* is yellow, clothed with fine pale hairs.

The *abdomen* is much lighter before than behind, and projects a good deal over the base of the cephalothorax. It is of a dull yellowish-green colour, with a rather darker, elongate, tapering macula on the fore half of the upperside; this macula has two slightly prominent points on each of the outer sides and is sharp-pointed behind; its margins are defined by pale cretaceous-looking spots; and on each side, not far from it, is a longitudinal row of three impressed spots; the surface of the abdomen is clothed, but not thickly, with pale fine hairs. The spinners are short; those of the superior pair are very much smaller than the inferior ones, but longer by the length of the small second joint.

The female is similar to the male in colours and general characters; but she has not the characteristic spiny armature of the hinder metatarsi; in fact the spines on the legs of the female are few and inconspicuous. The genital aperture is small and simple, consisting of a transverse slit within a somewhat quadrate external opening.

Adults of both sexes were found by myself upon low plants in the neighbourhood of Cairo in January 1864.

CHEIRACANTHIUM INSIGNE, sp. nov. (Plate LII. fig. 32.)

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

The *cephalothorax*, *legs*, *palpi*, and *sternum* are yellow; the cepha-

lothorax tinged with orange-brown (the ocular region being brown) and clothed with short fine pale hairs; a rather indistinct, narrow, elongate, wedge-shaped, brown stripe runs backwards from between the hind central eyes, and the normal grooves and indentations are marked by dusky converging stripes. In form the cephalothorax is short, round behind, constricted laterally at the caput, truncate before, but not so broad at this part as in some other species; the hinder slope is gradual; and the whole profile describes a pretty uniform curve, of which the occiput is the middle and the highest part.

The *eyes* are of moderate size, those of the fore central pair being the largest; their position is ordinary, the two rows occupying very nearly the whole width of the fore part of the caput; the clypeus is very low, less than the diameter of one of the fore central eyes. The eyes of each row, severally, appeared to be as nearly as possible equidistant from each other; the four central eyes form a square; those of each lateral pair are contiguous to each other and seated obliquely on a tubercle; all are on black spots, forming a narrow rim to each.

The *legs* are long and rather slender; their relative length is 1, 4, 2, 3; and they are furnished with hairs and spines: one of the latter is noticeable; it is beneath the fore extremity of the metatarsi of the third and fourth (or two hinder) pairs, stronger than the rest, but not so long as some of them, curved and black. Each tarsus ends with two curved pectinated claws, beneath which is a compact scopula.

The *palpi* are short, but appear to be longer, owing to the great size and length of the digital joint and palpal organs. The cubital joint is very short, the radial being somewhat longer; this latter has its outer extremity produced into a small, black, rather bluntish-pointed, very slightly curved apophysis, and is furnished with prominent bristly hairs both on the upper and under side; there is also a small prominence underneath the extremity of the radial joint, rather on the inner side, and a small spur-like spine from near the fore extremity of the upperside. The digital joint is almost as long as the whole of the rest of the palpus; looked at from above it is of a long, narrow, somewhat sinuous form; the portion beyond the palpal organs, often of considerable length in some species, is in the present species short; the normal spur at the hinder extremity is short, strong, pointed, and directed outwards close over the radial apophysis. The palpal organs have a sort of oval nucleus (with a corneous margin on the outer side) beneath the middle of the digital joint, with a considerable and somewhat membranous extension on all sides projecting far beyond the limits of the joint; this membranous portion is bounded by an extremely long, slender, sinuous, black, filiform spine, which commences on the inner side and appears to terminate in a coil near the centre of the palpal organs.

The *falces* are tolerably strong, rather long; they project forwards a little, and are slightly divergent; their colour is a deep, rich, blackish red-brown, that of the maxillæ and labium being red-brown.

The *abdomen* is of an elongate-oval form, highest before, where it projects a little over the base of the cephalothorax; it is of a dull

luteous yellow colour, with a slight indication of the ordinary elongate macula on the fore half of the upperside. The spinners are not large; those of the superior pair are two-jointed, the second joint being small and shorter than the first. The adult female resembles the male in colours and general characters; the genital aperture is small and of a narrow transverse kidney-shape.

The colour of the abdomen in this and many other very similarly coloured species can hardly be reliable as above described, the specimens having been some time preserved in spirits of wine; in our indigenous British species the colours of the abdomen are in life more or less green, while the spirit discharges this in a short time, leaving it only of a dull yellow; and this is very probably the case in the present and many other exotic species of this same genus.

An adult male and female of this remarkable and easily distinguished Spider were contained in the Bombay collection received from Major Julian Hobson; and the collections received from Ceylon from Mr. G. H. K. Thwaites also contained many adult examples of both sexes.

CHEIRACANTHIUM VORAX, sp. n. (Plate LII. fig. 33.)

Adult male, length $3\frac{3}{4}$ lines; adult female 5 lines.

The whole of the fore part of this species (except the falces, which are of a deep rich reddish brown, the ocular region, the maxillæ, and labium, which are suffused with reddish brown) is yellow; the cephalothorax is (looked at from above) short and broad, round behind, constricted laterally at the caput, broad and truncate at the eyes; the normal lateral grooves and indentations are indicated by dusky yellow converging streaks; the profile of the cephalothorax is curved, sloping quickly from the middle of the caput to the frontal margin or lower edge of the clypeus; the hinder slope is gradual and also curved; it is pretty fairly clothed with fine, rather short, pale hairs. The clypeus is very low, being less in height than the diameter of one of the fore central pair of eyes.

The *eyes* are in two almost equally curved transverse rows of very nearly equal length; the front row is the straightest, and the curves are directed away from each other; those of the fore central pair are the largest of the eight, and are rather nearer together than each is to the fore lateral eye nearest to it; and this is also the case in regard to the eyes of the hind central pair; these with the fore centrals form very nearly a square, whose transverse diameter, however, is a little longer than its longitudinal; those of each lateral pair are seated slightly obliquely on a small tubercle, and are very near to each other, but not contiguous.

The *legs* are long, moderately strong; their relative length is 1, 4, 2, 3; they are furnished with fine hairs and a very few spines, those on the tibial and metatarsi of the fourth pair being the most numerous and arranged somewhat in rings; the tarsi terminate with the usual two claws, beneath which is a compact scopula of black hairs.

The *palpi* are rather slender and not very long; the radial is full

(if not rather more than) double the length of the cubital joint, which is a little bent. The radial is furnished with long erect fine hairs; its outer extremity has a small deep-red-brown apophysis, which is rather curved and terminates with a somewhat hooked point, and a small tuberculiform prominence beneath its extremity near the inner side. The digital joint is of ordinary form, prominent at the middle of its outer margin, roundish behind, produced in front, though not there so cylindric in its form as in *C. indicum* (*vide infra*); its length is about the same as that of the radial joint; and from its hinder part there runs obliquely outwards a moderately long, slender, red-brown, thorn-like apophysis, extending backwards to about half the length of the cubital joint. The palpal organs occupy the underside of the hinder half of the digital joint; they are very similar in general structure to many others of the genus, consisting of a rather flattened oval corneous lobe, with a curved elongate pale projection at their fore part, and a rather slender spine which issues from the fore extremity on the outer side and curves backwards, terminating in a sharp filiform point on their inner margin.

The *falces* are long, three fourths as long as the cephalothorax, strong, divergent, and nearly vertical; their profile line is slightly and equally curved; and their fore sides are furnished with a few not very strong bristly hairs. The form of the maxillæ and labium is normal; the latter, however, is not apparently hollowed at its apex.

The *abdomen* is of a dull, pale, luteous yellow colour, clothed with fine hairs of various lengths, some on the upperside being very slender, long, and erect; the most convex part is at the fore side, where it projects over the base of the cephalothorax; thence it slopes gradually in a slightly curving line to the spinners; these are moderately long; those of the superior pair are less strong than the inferior ones, and two-jointed, the tapering second joint constituting their excess in length over the inferior spinners.

The adult female is larger than the male; and its cephalothorax is strongly suffused with brownish red; the legs are also shorter and stouter; the genital aperture is simple in form, being of a somewhat transverse kidney-shape.

An adult example of each sex was received from Major Julian Hobson, by whom they were found, and kindly forwarded to me from Bombay.

CHEIRACANTHIUM INDICUM, sp. n. (Plate LII. fig. 34.)

Adult male, length rather more than 3 lines.

The *cephalothorax* of this species, looked at from above, is short, round behind, constricted laterally on each side at the caput, truncated squarely at the fore extremity, and the normal grooves and indentations fairly marked; looked at in profile the hinder slope is short and abrupt, and the profile line from its upper part is a gradual (but sloping) curve to the clypeus, which is low and rather less than half the height of the facial space. The colour of the cephalothorax, as well as of all the rest of the fore part of the Spider, is a clear dull orange-yellow.

The *eyes* are all on black spots, in two transverse rows, slightly and equally curved away from each other, and occupying the entire width of the caput; they are of moderate size and not greatly unequal, those of the fore central pair being the largest; these are seated on slight tubercles, and separated from each other by an eye's diameter, being also nearer together than each is to the fore lateral on its side; those of the hind central pair are separated by very nearly two eyes' diameters; they form a line a little longer than that formed by the fore central pair, and are rather nearer together than each is to the nearest hind lateral eye; the eyes of each lateral pair are seated obliquely on a slight tubercle and are nearly contiguous to each other.

The *legs* are very long, slender, sparingly furnished with hairs, and armed with a few long sessile spines; but most of these had been broken off in the only example examined; their relative length is 1, 4, 2, 3, those of the first pair being considerably the longest; each tarsus ends with two curved claws, beneath which is a small compact tuft of hairs or scopula.

The *palpi* are moderately long, but slender; the radial joint is cylindrical, and nearly of equal size throughout; if any thing, it rather exceeds in length double that of the cubital joint; and its fore extremity on the outer side is produced into a small, tapering, bluntish-pointed, curved apophysis. The digital joint is long and narrow, about equal in length to the radial joint; it is oval behind, constricted over the middle, whence it continues to the extremity in a nearly cylindrical form, being slightly enlarged towards the end, and the point obtusely subconical; the hinder extremity is produced backwards into a sharp-pointed, somewhat corneous apophysis peculiar to all males of this genus; this apophysis is rather sharply bent at its base, and its length is about one fourth of that of the digital joint; the fore half of the digital joint is pretty thickly clothed with shortish hairs. The palpal organs are simple, but rather prominent, and occupy the hinder half of the underside of the digital joint; these organs consist chiefly of a nearly circular corneous lobe, with a pale prominence at the fore extremity, and a black, tapering, sharp-pointed spine which, issuing from their outer side, curves round their hinder extremity and terminates in close contact with their inner side.

The *falces* are subconical, straight, but projecting, moderately long, not very strong, a little prominent near their base in front, and furnished with bristly hairs near their extremities, chiefly on the inner sides and about the insertion of the fangs.

The *maxillæ* are normal; the *labium*, oblong, emarginate at its apex, and more than half the length of the maxillæ.

The *abdomen* is elongate-oval, more convex at the fore extremity, where it projects over the base of the cephalothorax, than behind, and falling off gradually (when looked at in profile) to the spinners; it is of a pale luteous yellow colour, marked above and on the sides with tracings of small whitish cretaceous atoms; the spinners of the superior pair are tapering, 2-jointed, slenderer than the inferior pair, but double their length.

A single adult male was received from Bombay, from Major Julian Hobson, among many other rare and new Spiders.

Genus CLUBIONA, Latr.

CLUBIONA FILICATA, sp. n. (Plate LII. fig. 35.)

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

This Spider is very like *Clubiona robusta* (L. Koch) (Swan River, Australia) in general form, colours, and markings, but may easily be distinguished in both sexes by well-marked differences in the form of the sexual organs; its colours and markings also strongly remind one of *C. comta* (C. Koch) of Europe.

The *cephalothorax* is of ordinary form; it is of a brownish orange-yellow colour, deepening towards the eyes, and clothed thinly with pale hairs, among which are a few erect slender dark ones; the lateral constrictions at the caput (which is short and broad) are slight; the normal grooves and indentations are marked by dusky converging lines.

The *eyes* are of moderate size, in the usual two transverse curved rows, the front row nearly straight and considerably the shortest; the eyes of this row are about equidistant from each other; they are placed very near, about half of one of the central eye's diameters, from the lower margin of the clypeus; the interval, however, between those of the central pair of this row, which are the largest of the eight, is perhaps rather greater than that which separates each from the fore lateral on its side; the eyes of the hinder row are more unequally separated, those of the central pair being perceptibly further from each other than each is from the hind lateral on its side; each fore central eye is separated from the hind central nearest to it by nearly the diameter of the latter; those of each lateral pair, which are the smallest of the eight, are placed very obliquely, and are divided by an interval about equal to that between the fore and hind central eyes.

The *legs* are yellow, moderately long, and tolerably strong; their relative length is 4, 1, 2, 3, though the difference between those of the first and second pairs is very slight; they are furnished with hairs and spines; and beneath the two terminal tarsal claws is a compact claw-tuft.

The *palpi* are similar in colour to the legs, rather short, and not very strong. The radial is of the same length as the cubital joint, but rather less strong; it has near the outer side of its fore extremity a small, dark, flattish, somewhat wedge-shaped apophysis, being, however, but little more than a prominent sharp point; the digital joint is of moderate size, oval, and equal in length to the radial and cubital together. The palpal organs are well developed, but simple, consisting of a large, pale yellowish oval lobe encircled by a broadish, somewhat omega-shaped, yellow-brown band, and with one or two small corneous prominences, as well as a small, fine, and not very long, coiled, filiform, black spine at their extremity.

The *falces* are moderately long, strong, slightly projecting, promi-

ment at their base in front, of a deep yellow-brown colour, and furnished with prominent bristles before.

The *maxillæ* are of the same colour as the falces, straight, but much broader at their extremity than at the insertion of the palpi.

The *labium* is of an oblong-oval form, truncate at the apex, slightly more than half the length of the *maxillæ*, which it resembles in colour.

Sternum oval, truncate before, pointed behind, and similar to the legs in colour.

Abdomen elongate-oval, slightly hollow—truncate before, pointed behind, projecting over the base of the cephalothorax, of a pale yellow colour, clothed thinly with pale golden hairs, among which are a few erect dark ones; the central longitudinal normal elongate-oblong tapering marking on the fore half of the upperside is of a deep blackish red-brown colour; on each side of this are two blotches of the same colour, prolonged into oblique lateral lines; and it is followed towards the spinners by several angular bars or chevrons, whose terminations are dilated into blotches, the first being also produced into lateral lines. The spinners are moderately long, not very strong; those of the superior pair are less strong than those of the inferior, but longer by a short second joint.

The female differs from the male only in being slightly larger; the form of the genital aperture is characteristic.

An adult example of each sex was found in Major Julian Hobson's Bombay collection. It is a very interesting species, being so nearly connected with, but yet quite different from, both the European and Australian forms.

CLUBIONA DRASSODES, sp. n. (Plate LII. fig. 36.)

Adult female, length 5 lines.

Except in being larger, and differing in the form of the genital aperture, this Spider might well have been taken for the female of the foregoing species, *C. filicata*; the red-brown pattern on the abdomen is more regular, and forms a well-defined recurved peculiar pattern along the middle of the hinder half of the upper surface; the spinners are shorter and the sternum narrower, the *maxillæ* and *labium* darker, and the falces rather more projecting forwards; the eyes of the hinder row are more nearly equally divided, the difference between the interval which separates those of the central pair and each of them and the lateral eye nearest to it being very slight; the form of the genital aperture is very simple, but quite different from that of *C. filicata*; this difference may be seen at once by the accompanying figures, engraved from drawings made by Dr. Ludwig Koch.

A single adult female example was received in Major Julian Hobson's Bombay collection.

Genus AGRÆCA, Westr.

AGRÆCA PULCHERRIMA, sp. n. (Plate LII. fig. 37.)

Adult male, length slightly over 3 lines.

This is a very pretty but simply coloured Spider. The *cephalo-*

thorax is rather short-oval, constricted laterally at the caput, the fore part of which is rather narrow; its colour is dark brown, a broad central band comprising nearly the whole of the caput, but gradually narrowing to the hinder part of the thoracic portion, as well as a broad band on each side above the lateral margins, being thickly clothed with short white hairs. Looked at in profile, the hinder slope of the cephalothorax is abrupt, and from its summit there is a gradual and even slope to the eyes.

The *eyes* are of moderate size, in two almost equally curved transverse rows (the front row being a little the shortest), the curves directed away from each other, and forming a broadish transverse oval area; the eyes of the hind central pair are rather further from each other than each is from the hind lateral on its side, being separated by about an eye's diameter; and the same relative position holds good in regard to the eyes of the front row; those of each lateral pair are placed very slightly obliquely, but are not quite contiguous to each other; the four central eyes form a quadrangular figure, whose length is greater than its breadth.

The *legs* are moderately long and strong, furnished with hairs and spines; their relative length is 4, 1, 3, 2, the difference between 1 and 3 being very slight indeed; the colour of the first and second pairs is yellow, that of the third and fourth pairs is deep brown, sparingly banded with dull yellowish, the bands clothed with short white hairs; the tarsi are dull yellowish brown, and each terminates, as far as could be ascertained, with two claws, beneath which is a black scapula.

The *palpi* are not very long, moderately strong, and of a yellow colour, similar to that of the fore legs. The cubital and radial joints are short but of equal length; the latter is the strongest, and has a narrow, angular prominence on its underside, the upper side being furnished with bristles, hairs, and spines; the digital joint is large, oval, with its fore extremity produced into a rather fine point. The palpal organs are simple, consisting of a large roundish lobe, marked on its surface with sinuous dark lines, and produced in a tapering form at its fore extremity, where they terminate in a spiny-looking reddish-brown point immediately beneath the extremity of the digital joint.

The *falces* are moderately long, not very strong, nearly vertical, and of a dark yellow-brown colour.

The *maxillæ* are short and oblong in form, of a yellow-brown colour, and pale yellowish at the extremities.

The *labium* is very short, rounded at its apex, which is of a pale yellowish hue, the rest being darker.

The *sternum* is oval heart-shaped, of a deep yellow-brown colour, sparingly clothed with short whitish hairs.

The *abdomen* is oval, narrower before than towards its hinder part; the upper part and sides are dull black; on either side of the upper part is a bold longitudinal, somewhat zigzag, broken pattern along its whole length, densely clothed with short white hairs; the lower portion of the sides is also clothed with white hairs; the



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