

SCIENTIFIC RESULTS
OF
THE SECOND YARKAND MISSION;

BASED UPON THE COLLECTIONS AND NOTES

OF THE LATE

FERDINAND STOLICZKA, Ph. D.

ARANEIDEA,

BY THE

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Published by order of the Government of India.

CALCUTTA:

PRINTED BY THE SUPERINTENDENT OF GOVERNMENT PRINTING, INDIA.

1885.

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ARANEIDEA.

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INTRODUCTORY REMARKS.

THE spiders collected by the late Dr. Stoliczka in the Yárkand expedition can by no means be considered a full, nor perhaps even a fair, representation of the *Araneidea* of the extensive area over which the expedition passed.

Mr. A. O. Hume informs me that this area may be subdivided into five well-marked regions, and suggests that the spiders found in each should be distinctly (*i.e.*, I conclude, separately) treated. Now, judging from the contents of the collection, I should have thought that the regions might have been considered as two only,—that is, (1) from Murree to Cashmere, including the latter as well as the former; and (2) the whole of the rest of the area travelled over by the expedition, and comprising the neighbourhood of Leh, the route from Tantze to Chagra and Pankong valley, and from Yárkand to Bursi, as well as Yárkand and neighbourhood, Káshghar, the hills west of Yárkand, and the Pamir.

In the first of these regions—Murree and Cashmere—more than half of the whole number of spiders were collected; the total number of species is 131; the number from this region is 69. The leading character of the spiders of this region is European, with a few more distinctly tropical and subtropical species, such as *Idiops designatus*, *Episinus algericus*, *Phycus sugillatus*, *Meta mixta*, *Chorizoopes stoliczkæ* and *C. congener*, *Cyrtarachne pallida*, *Diaea subargentata*, *Monastes dejectus*, *Sarotes regius* and *S. promptus*, *Sparassus fugax*, *Ocyale rectifasciata*, *Philodromus medius*, and *Oxyopes jubilans* and *O. prædicta*. The leading character of the second region is also European, but with a decided subalpine feature, and no trace scarcely of anything tropical or even subtropical, excepting perhaps *Prothesima cingora*, *Sparassus flavidus*, and *Bæbe benevola*. Of the 69 species found in the Cashmere regions, three only were found in the other regions mentioned; and one species only, *Drassus dispulsus*, occurred generally throughout the whole area travelled over,—*i.e.*, in all the five regions specified by Mr. Hume.

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In the systematic list of species following the present descriptions, figures are added notifying in which of Mr. Hume's regions each species occurred. Supplementary lists are also appended of the spiders found in each separate region, with figures showing in what other regions, if any, each occurred. From these lists, it will be seen that one species only (that mentioned above) was common to all the five regions; three others were common to four of the regions; four others common to three regions; and fourteen others common to two of them;—sixty-six of the species being, as above observed, found only in region 1 of Mr. Hume, corresponding exactly to the first region indicated, as it seems to me, by the character of the spiders themselves.

The regions named by Mr. Hume are:—

(1) "*Cashmere including Murree and the road thence to Cashmere.*"—This comprises the spiders noted in my descriptions as *Murree*, *Murree to Sind valley*, and *Sind valley*.

(2) "*Ladakh, from the Zojeela Pass to the head of the Pankong Lake.*"—This comprises the spiders noted in my descriptions as *Neighbourhood of Leh*, and *Tantze to Chagra*, and *Pankong valley*.

(3) "*The mountain masses between the head of the Pankong Lake and the plains of Yárkand,*" comprising only the spiders noted as *Yárkand to Bursi*, there being no spiders in the collection labelled as having been obtained during the forward journey from the Pankong Lake to the plains of Yárkand.

(4) "*The plains of Yárkand,*" comprising the spiders noted as *Yárkand and neighbourhood*, and *Yárkand.*" Excepting the three species mentioned as subtropical in my second region, there were no spiders, in this region 4 of Mr. Hume, differing in character from the general run of those in his regions 2, 3, and 5.

(5) "*The high country west of Yárkand, the hills leading up to the Pamir, the Pamir and Wokhan.*"—This comprises the spiders noted as *Káshghar, between Yangihissár and Sirikol*, *Yangihissár, road across the Pamir from Sirikol to Panjah and back*, and *hills between Sirikol and Aktalla*.

It will be seen from the above that my first region corresponds exactly with region 1 of Mr. Hume, and that my second region includes Mr. Hume's regions 2, 3, 4, and 5.

The localities noted for each species in my descriptions are those written (I suppose by Dr. Stoliczka himself) upon the several bottles in which the spiders were contained. No attempt had been made to separate the species in each bottle, nor, with one exception, is there anything in Dr. Stoliczka's diary referring intelligibly to the separate contents of the bottles. Dr. Stoliczka's notes on the spiders are very few, and of the most general description. In the one exceptional instance (Diary, p. 3, dated 19th July 1873, *Tinali*), the note refers to the capture of a "great number of spiders, chiefly *Thoursus*" (probably a misprint for *Thomisus*, though there were very few *Thomisids* in this bottle) "and *Sphasus* [*Sphasus*]; among the latter I recognised *Sphasus viridanus*." Now, there was not a single example of *Sphasus* in any one of the bottles, excepting in one, which contained no label nor any other clue either to the locality or its contents; the mention therefore of *Sphasus* is thus important, and fixes the locality in which the contents of this unlabelled bottle were collected. The *Sphasus viridanus* alluded to is a Calcutta species, described by Dr. Stoliczka himself (Journ. Asiat. Soc., Bengal, vol. xxxviii, p. 220, pl. xx, fig. 1), but is quite distinct from either of the three species found in this bottle (*vide* remarks on these species, *infra*).

Out of the 132 species in the collection, I can only determine 23 as certainly identical with European species already described, leaving 109, which I believe to be new to science.

This appears to be a large proportion of undescribed species, but no more than might be expected from a district hitherto wholly (so far as I am aware) unknown to arachnologists. The researches of Alexis Fedtschenko, *Reise in Turkestan*, lately (in respect at least to the *Araneidea*) published by Kronenberg, give 146 species, of which 101 are identified with known European species. Excepting the Latin descriptions of new species, this work is written in the Russian language, with which I have, unfortunately, no acquaintance whatever. Eight only of the spiders described or recorded by Kronenberg appear to me identical with those contained in Dr. Stoliczka's collection. These are *Epeira tartarica*, Kron.; *Epeira cornuta*, Clk.; *Epeira cucurbitina*, Clk.; *Tetragnatha extensa*, Linn.; *Pachygnatha clerckii*, Sund.; *Erigone dentipalpis*, Wid.; *Theridion tuberculatum*, Kron.; and *Xysticus cristatus*, Clk. At first sight it might seem remarkable that so large a proportion of the collection made by Fedtschenko in Western Turkestan should be identical with European species, while so small a proportion out of those collected by Dr. Stoliczka are similarly identical; but when it is borne in mind that more than half of Dr. Stoliczka's collection was made in Murree and Cashmere, we need not be surprised at these results, for, indeed, a comparatively small collection only can be said to have been made in Eastern Turkestan, and that chiefly on the high mountain ranges and during the winter and early spring months; these months being probably there, as in other analogous districts, the least favourable for the fullest development of the *Araneidea*.

I have observed that the number of species contained in Dr. Stoliczka's collection cannot be by any means considered a full representation of the spiders inhabiting the country travelled over. The season of the year had probably much to do with this paucity of species, but more than anything else it may be accounted for when we remember the number of years Dr. Stoliczka had in the field, embracing the whole field of the zoology, as well as of the geology, of the districts visited; instead, therefore, of being surprised at the smallness of the arachnological results of the expedition, we must, under the circumstances, wonder at their extent. We may look forward now with great interest to future collections made in the north of India, on the southern slopes of the mountain ranges of Cashmere, and in the plains adjoining, where we should expect the tropical character of the spiders to become far more marked, though probably still with a great diversity in the species from those found in the more central regions of India. No materials, however, exist, so far as I am aware, for any comparison upon these points; indeed, the materials for comparison with any Indian spiders are, as yet, comparatively small, and but little has been hitherto published upon them.

Order—ARANEIDEA.

Family—*THERAPHOSIDES*.

Genus—*IDIOPS*, Perty.

1.—*IDIOPS DESIGNATUS*, sp. n., Pl. I, Fig. 1, ♂.

Adult male: length $5\frac{2}{3}$ lines; to the end of falcis $6\frac{1}{3}$ lines; length of cephalothorax 3 lines (nearly); breadth rather over $2\frac{1}{2}$.

Cephalothorax round-oval, truncated at each end and rather flattened; it is of a bright red-brown colour, and the normal indentations are strongly marked. The caput is a little elevated above the general level, being rather the highest near the occiput, across which is a

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well-defined, transverse curved depression (or indentation); the convexity of the curve is directed forwards, and its ends merge in those of the thoracic indentation, which is also curved (the convexity of the curve directed backwards) and deeply impressed; these two curved indentations enclose a well-defined, somewhat roundish, smooth, and shining area; a portion of the surface of the caput on each side, in front of this, is transversely rugulose, and, together with the rest of the thoracic surface, more or less, though not very thickly, covered with minute tubercular granulosities.

The *eyes* are of moderate size and disposed in three transverse rows, 2, 2, 4, forming two widely separated groups, each group placed on a tubercular elevation. Those of the first, or foremost, row constitute one group close to the fore margin of the caput; these appear to be rather the largest of the eight, and are separated from each other by about an eye's diameter; those of the hinder group (consisting of the second and third rows) form a narrow transverse elongate oval; the eyes of the second row are also separated by an eye's diameter, and the length of the row is little, if anything, different from that of the first; the hinder row is curved (the convexity of the curve being directed backwards); the eyes of this row appear to be smaller than the rest, the middle pair being of an irregular form and yellowish-white colour (the colour of the rest is dark), and considerably further from each other than each is from the lateral eye of the same row on its side, and the length of the line formed by those two, hind-central, eyes is a little greater than that of the second (or middle row).

The *legs* are tolerably strong and of moderate length; their relative length is 4, 1, 2, 3; they are of a bright yellow-brown colour, deepening into red-brown on the tibiæ (and on some other parts) of those of the first and second pairs; their armature consists of hairs, bristles, and spines, but neither of these in any great abundance. The spines are chiefly on the tibiæ and metatarsi; those underneath the first and second pairs (particularly the first) are the most conspicuous: the tibiæ of the first pair are considerably but gradually enlarged at their fore-extremity on the inner side, the enlargement terminating with a long, strongly-curved, blunt-pointed spur or spine. A little on the inner side behind the base of this spur, is a short and strongish denticulation; the metatarsi of the first pair are rather abruptly bent towards their fore-extremity, and slightly enlarged in a bluntish angular form on the inner side. The tarsi are devoid of any scopula, each ending with three claws; those of the upper pair are strong and pectinated; the inferior one is small and inconspicuous.

The *palpi* are long, rather strong, similar to the legs in colour, and furnished with hairs and bristles, those beneath the radial joint being the longest and most numerous. This joint is long, more than double the length of the cubital joint, and nearly equals that of the tibiæ of the first pair of legs; it is of a rather tumid form, and is bent downwards near its anterior extremity, on the outer side of which there is a strong oblique indentation extending underneath, and margined above with a somewhat tuberculous ridge armed with short, strong, tooth-like spines; the digital joint is short, expanded laterally at its fore-extremity, which is also somewhat indented, and armed with a few spines; and the palpal organs are, as usual, simple, though characteristic in detail, consisting of a roundish corneous bulb prolonged into a long, tapering, slightly sinuously-curved, bifid spine, whose extremity, when in its position of rest, is directed outwards and backwards.

The *falces* are moderately strong and bristly, and have near their extremity, on the inner side, a prominence, armed with strong tooth-like spines: their colour is similar to that of the cephalothorax.

The *maxillæ* are moderately long, cylindrical in form, and their fore-extremity, on the inside, terminates in a moderate-sized angular point.

The *labium* is of a somewhat quadrate form, though well rounded at its apex and convex on its outer surface. The colour of the *maxillæ* and *labium* is like that of the legs.

The *abdomen* is short, rather broader behind than before, considerably convex above, particularly towards the fore part; it is furnished with hairs and a few scattered prominent spines on the upper side, which is of a dark-brownish colour, the under side being of a paler yellowish-brown. The spinners are four in number in the usual position, and pale yellow in colour; those of the superior pair are three-jointed, and tolerably strong but short; those of the inferior pair, short, small, and one-jointed.

Hab.—Murree, between June the 11th and July the 14th, 1873.

This spider appears to belong to the genus *Idiops* as restricted by Professor A. Ausserer in his work upon this family.

Though allied to *I. syriacus*, Cambr., it is certainly distinct from that species, of which, however, the male has not yet been discovered.

Family—*FILISTATIDES*.

Genus—*FILISTATA*, Latr.

2.—*FILISTATA SECLUSA*, sp. n., Pl. I, Fig. 2, ♀.

Immature female: length $2\frac{1}{4}$ lines.

In its general form, structure, and appearance this spider is similar to *F. testacea*, Latr., and some other nearly allied species of the genus.

The *cephalothorax*, *legs*, *palpi*, and other fore parts are yellow; the *cephalothorax* has a narrow, blackish marginal line, and occasionally there is a blackish longitudinal marking on the caput behind the *eyes*; these are in the ordinary position and differ little, if at all, in their relative size from those of the species before mentioned.

The *legs* are furnished with hairs, bristles, and some spines, the latter not being very sharp pointed.

The markings of the *abdomen* furnish a very distinctive character in the present species: it is of a dull yellowish colour, with a strong, well-defined, dark, rusty-reddish, longitudinal, median band; this band tapers towards its hinder part, where it is broken into somewhat angular patches; these are continued laterally by some more or less conspicuous oblique lines of the same colour, forming, in fact, the series of chevrons (or angular markings) more or less observable on the hinder half of the abdomen in the greater part of the *Araneidea*; the under side is slightly suffused along the middle, with dull rusty red.

Hab.—Leh, August or September 1873; Pankong-valley, 15th to 21st September 1873.

Family—*DYSDERIDES*.

Genus—*DYSDERA*, Latr.

3.—*DYSDERA CYLINDRICA*, sp. n., Pl. I, Fig. 3, ♂.

Adult female: length $6\frac{1}{2}$ lines; length of cephalothorax 2 lines.

The *cephalothorax* and *falces* are of a bright, reddish liver-coloured brown; the *legs* and

palpi are reddish-orange coloured; the *maxillæ*, *labium*, and *sternum* bright orange-brown, and the *abdomen* dull clay-coloured. In these respects there is, therefore, little or no difference between the present and many other species of *Dysdera*, nor is there any remarkable difference either in the form of the cephalothorax or in the position of the eyes; the surface of the former, although not marked with any distinct punctures, is not glossy; the normal grooves and indentations, though visible, are very slightly defined and it is uniformly but not greatly convex; the fore part is broadly truncated, and the caput is a little constricted at the lateral margins. The cephalothorax is remarkably small, and short, compared to the length of the abdomen.

The *eyes* (six in number) are placed round a slight tubercular elevation close to the fore part of the caput, the height of the clypeus being not more than equal to the diameter of one of the foremost eyes; those of the posterior row (four) are equal in size, contiguous to each other, and form, as nearly as possible, a straight transverse line; immediately in front of each lateral eye of this row, is another larger one contiguous to it, and forming an oblique line in relation to the hinder row, so that the row consisting of the two anterior eyes is rather shorter than the hinder row.

The *legs* are moderate in length and strength, and their relative length is 1, 4, 2, 3. They are furnished very sparingly with hairs, and these are chiefly on the under side; those of the third and fourth pairs have also a few short, fine spines; the tarsi are very short and terminate with two curved, pectinated claws, beneath which is a small compact claw-tuft, behind this the tarsi and the anterior portion of the metatarsi are thickly fringed underneath with hairs.

The *palpi* are similar to the legs in colour, and are furnished with hairs and bristles, the fore part of the digital joint being rather thickly clothed with them, and its extremity is furnished either with *two* small claws, or else with a short curved denticulation springing from the base of the ordinary claw; the hairs and bristles surrounding this part make it difficult to ascertain this exactly.

The *falces* are moderately long, porrected, and rather hollowed on the inner side of their fore half; their length does not exceed half that of the cephalothorax, and the front surface near their base is furnished with a few minute tubercular granulations.

The *maxillæ* are rather long, strong, excavated on the side towards the labium, obliquely truncated at the extremity, and convexly rounded on the outer side above the point where the palpi are articulated; at this point, which is nearly about the middle, the maxillæ are very strong.

The *labium* is rather more than two-thirds of the length of the maxillæ, and is very broad at its base, a little way above which there is a transverse suture or indentation; its sides above this are hollowed; the apex is also hollowed, or strongly, and roundly, indented.

The *sternum* is oval, obtusely pointed behind, truncated before, and strongly impressed at the points between the insertions of the legs.

The *abdomen* is large and of an oblongo-cylindrical form; this character alone distinguishes it at once from all other described species known to me. It is thinly clothed with very short hairs, and the spinners are short and inconspicuous.

The male differs in no essential respect from the female, except in being rather smaller, and, of course, in the smaller size of the abdomen, which, however, preserves the same cylindrical oblong form; the palpi are very like those of *Dysdera cambridgii*, Thor. (*D. erythrina*, Bl.), but the palpal organs are of a much more elongated form.

Hab.—Murree, between June 11th and July 14th, 1873.

Family—*DRASSIDES*.Genus—*DRASSUS*, Walck.4.—*DRASSUS TROGLODYTES*, C. L. KOCH.*Drassus troglodytes*, C. L. Koch, Die Arachn. VI, p. 35, Taf. 189, figs. 455, 456.

Hab.—Examples of this widely-dispersed species were contained in the collection from the following localities: Yárkand to Bursi, May 28th to June 17th, 1874; between Sirikol and Aktallah, 8th to 13th May 1874; Tantzé to Chagna and Pankong valley, 15th to 21st September 1873; Yárkand and neighbourhood, November 1873.

5.—*DRASSUS INFLETUS*, sp. n., Pl. I, Fig. 4, ♀.Adult female: length $3\frac{1}{2}$ lines.

The *cephalothorax* is of a rather elongate-oval form, narrowing gradually to the fore-extremity, which is truncate; the lateral impressions of the caput are very slight; looked at in profile, the fore-part of the caput slopes very little forwards, and the hinder (or thoracic slope) is short, abrupt, and rather rounded. The normal indentations are ill-defined, and the central thoracic groove is indicated by a short red-brown line; the colour of the cephalothorax is yellow-brown, and it is covered with a grey pubescence, among which are some dark hairs.

The *eyes* are in two transverse, slightly curved, and very nearly concentric, curved rows, close to the fore margin of the caput; they are of moderate size, not greatly different in this respect, and pretty compactly grouped together; those of the front row are very near together, but the interval between the two central eyes of this row is rather greater than that between each and the lateral eye nearest to it; the interval between the laterals of the two rows is nearly, if not quite, equal to the diameter of the largest of them, which appears to be that of the front row; those of the hind-central pair are contiguous to each other, oblique, of an oval form and pearly lustre, and each is separated from the hind-lateral eye nearest to it by an interval equal to its own diameter; the fore-central eyes are the largest of the eight, and the spot on which they are seated appears to be a little prominent; the height of the clypeus is no more than equal to the diameter of one of the last-mentioned eyes.

The *legs* are tolerably strong but rather short; their relative length is 4, 1, 2, 3; they are of a brownish-yellow colour, deepening to reddish-brown on the metatarsi and tarsi, and clothed with greyish pubescence mixed with darker hairs, bristles, and spines; the last chiefly on those of the third and fourth pairs; beneath the two claws with which the tarsi terminate is a small claw-tuft.

The *palpi* are short, pretty stout, and similar to the legs in colour and clothing; the radial and digital joints deepening to red-brown.

The *falces* are tolerably long and strong, directed a little forwards; their colour is like that of the cephalothorax, and they are furnished in front with hairs, bristles, and greyish pubescence.

The *maxillæ* are strong, slightly curved, and inclined towards the labium, as well as broadly impressed across the middle; the basal portion is broad and rather convex, and its colour is darker than that of the cephalothorax.

The *labium* is oblong, rounded at the apex, and similar to the maxillæ in colour.

The *sternum* is like the cephalothorax in colour, and of a regular oval form, pointed behind; it, like the maxillæ and labium, is clothed with fine brownish hairs.

The *abdomen* is of a short oval form, blunted at each end, and tolerably convex above it is of a pale clay-colour, covered thinly with yellowish-brown hairs; the four exterior spinners are moderately long, and of nearly equal length; the genital aperture is rather large and of characteristic form.

Hab.—Between Yangihissár and Sirikol, March 1874.

6.—DRASSUS INTEREMPTOR, sp. n., Pl. I, Fig. 5, ♂.

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

The *cephalothorax* is very similar in form to that of *D. infletus*, though rather narrower in front; its colour is yellow-brown, and it is clothed pretty thickly with grey pubescence.

The *eyes* are rather small, but placed in the usual two transverse curved rows; the foremost row, which is the shortest, is nearly straight, the hinder one considerably curved and the curves of both have their convexities directed backwards. The eyes of the hinder row are equidistant from each other, those of the central pair of this row being rather the smallest of the eight; those of the fore-central pair are the largest, and form a line longer than the hind-centrals, the interval separating them being about equal to an eye's diameter, and each is very nearly contiguous to the lateral of the same row next to it. The eyes of each lateral pair are placed a little obliquely, and are rather nearer together than those of the hinder row are to each other; the longitudinal diameter of the trapezoid formed by the four central eyes is considerably greater than the transverse one; the height of the clypeus is about equal to the diameter of one of the fore-central eyes.

The *legs* are strong and of tolerable length, and rather lighter in colour than the cephalothorax; their relative length is 4, 1, 2, 3, and they are pretty thickly clothed with sandy-grey hairs (among which are some of a browner hue), bristles, and spines; some of the latter are beneath the metatarsi and tibiæ of those of the 1st and 2nd pairs, but the greater number are on the third and fourth pairs. Each tarsus terminates with two claws, beneath which is a small claw-tuft; and beneath the tarsi is a scopula extending a little way underneath the anterior portion of the metatarsi.

The *palpi* are short, tolerably strong, and similar in their colour and armature to the legs. The humeral joint has several black spines on its upper side; the cubital joint is stronger and a little longer than the radial; the latter is furnished with longish bristly hairs, and expands at its fore-extremity, which is prolonged on the outer side into a tolerably strong, rather tapering, reddish-brown apophysis, terminating in an obtuse, flattened, corneous point; the digital joint is large, oval, and of a browner hue than the rest; the palpal organs are prominent and well developed; they are of a yellowish colour, traversed near the middle by a distinct yellow-brown spine-like fillet or band, close in front of which is a strong, curved, tapering, reddish-yellow-brown corneous process, with another very similar, but smaller, in front of it; a third, smaller still and apparently obtuse, being in front again, just below the fore-extremity of the joint.

The *falces* are neither very long nor strong; their direction is nearly vertical, and they are similar in colour to the cephalothorax; their front surface is clothed with greyish pubescence and some brown hairs and bristles.

The *maxillæ* are strong, considerably bent towards the labium, over which their extremities almost meet, and broadly impressed across the middle; their colour is rather darker than that of the cephalothorax.

The *labium*, owing to some foreign matters adhering to it, could not be very distinctly seen, but its form appeared to be oblong, rounded at the apex, and its colour like that of the *maxillæ*.

The *sternum* is oval, pointed behind, like the *maxillæ* in colour, and clothed with grey pubescent hairs.

The *abdomen* is about equal in length to the cephalothorax, of an oblong-oval form, not very convex above; it is of a somewhat mottled clay-colour, with an oblong, brownish, dorsal marking on the anterior half of the upper side, produced behind into a narrow brown-pointed stripe: the fore-extremity of this dorsal marking is strongly suffused with rusty red brown. The middle of the upper side of the abdomen has four small red-brown impressed spots in the form of a square, whose fore-side is rather the shortest; it is clothed, but not very densely, with coarsish dark brown hair. The spinners are strong, those of the inferior pair being double the length of those of the superior.

Hab.—Neighbourhood of Leh, August or September 1873.

7.—*DRASSUS INVISUS*, sp. n., Pl. I, Fig. 6, ♀.

Adult female: length rather more than 5 lines.

This spider is nearly allied to *D. interlisus*, which it resembles in form, general colouring, structure, and appearance: it is however smaller, and the colour of the caput is much less rich, being but little darker than the thorax, which is a dull yellow-brown; the whole of the cephalothorax is covered with a sandy-grey pubescence; and there is a dark line running down the middle of the caput from the hind-central pair of eyes to the thoracic indentation.

The *eyes* are also different in their position from those of *D. interlisus*, those of the hind-central pair being placed obliquely to each other, and those of the fore-central pair nearer together and further from the laterals.

The *falces* are less strong, and the apex of the *labium* does not reach so nearly to the extremity of the *maxillæ*.

The *abdomen* is of a rather short, oblong-oval form, tolerably convex above: it is of a dull-yellowish hue, thinly clothed with fine hairs: along the middle of the fore-half on the upper side, is a slightly darker, but clearly defined, oblong marking, which has its hinder part tapered off to a sharp point, and an angular point on each side where the tapering portion begins. There are also four small dark blackish-brown oblique spots on the fore-half, forming a rectangle whose length is about double its breadth: two fine parallel brownish lines run on the under side from the genital aperture to a little distance from the spinners, and from each of the inferior pair of spinners a similar line runs a little obliquely to a point in a line (in a transverse direction) with the termination of the two other lines just mentioned: the spinners are short and strong, those of the inferior pair being the strongest and a little the longest: the genital aperture is small and of a very simple form.

Hab.—Between Sirikol and Aktalla, between the 8th and 31st of May 1874.

8.—*DRASSUS INTERPOLATOR*, sp. n., Pl. I, Fig. 7, ♂.

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

The *cephalothorax* is oval, truncated and narrowest before, and tolerably constricted on the lateral margins of the caput; the profile line slopes gradually forwards from the beginning of the hinder slope of the thorax; its colour is yellowish-brown radiated with darker stripes, which follow the directions and lines of the thoracic and other normal indentations; the whole surface is pretty thickly clothed with yellowish-grey pubescence.

The *eyes* are in the usual two transverse curved rows, the hinder one of which is the longest and the most curved; those of the hind-central pair are separated by more than a diameter's distance from each other, and are thus rather nearer to each other than each is to the lateral of the same row on its side; those of the fore-central pair are slightly the largest of the eight, and rather further from each other than each is from the fore-lateral eye on its side; those of each lateral pair form an oblique line, and are divided by an interval of nearly about an eye's diameter. The height of the clypeus is equal to the diameter of one of the fore-central eyes.

The *legs* are rather long and not very strong; their relative length is 4, 1, 2, 3; they are of a dull yellow-brown colour, clothed with sandy-greyish pubescence, and other hairs and spines, the latter are for the most part long and rather strong, and, besides a small claw-tuft under the two terminal tarsal claws, each tarsus has a scopula (though not a very dense one) underneath it.

The *palpi* are rather short and not very strong; the lengths of the cubital and radial joints are about equal; the latter increases in strength gradually to the fore-extremity, at the outer side of which there is a small tapering apophysis, whose point ends with a small, slightly curved, corneous-looking claw or nail; the direction of this apophysis is rather away from the digital joint. The radial joint is furnished with strong bristles, and a long spine on the outer side towards the hinder extremity; the digital joint is of an elongate-oval form, and equals in length the radial and cubital joints taken together; the palpal organs are not complex; the surface of the main lobe is traversed and surrounded by two red-brown, corneous-looking fillets, resembling closely applied spines, and there is dark red-brown, corneous prominence near the fore-extremity of these organs; the digital joint is dark yellowish-brown, and hairy, and has a strongish spine on its outer margin; the colour of the other joints of the palpi is similar to that of the legs.

The *falces* are moderately long and strong, and their direction is rather forwards; they are of a dark red-brown colour and furnished with hairs and bristles.

The *maxillæ* are tolerably long and strong, slightly curved and inclined towards the labium, and strongly impressed in an oblique direction across the middle; their extremities are rather rounded, and their colour is yellowish red-brown, pale whitish at the extremities.

The *labium* is of an oblong form, truncated at the apex, and similar to the *maxillæ* in colour, its length being nearly about two-thirds that of the *maxillæ*.

The *sternum* is of a dull brownish-yellow colour, and of an oval form, pointed at its hinder extremities, and depressed between the insertions of the legs.

The *abdomen* is of a rather narrow-oval form, and moderately convex above; it is of a dull brownish clay-colour, thinly clothed with hairs, and has an oblong, dull-brown, median longitudinal marking, whose hinder extremity is gradually produced into a sharp point

on the fore-half of the upper side, where also four small brown spots form a square, whose fore-side is rather the shortest; the two hinder ones of these spots are in a line with the point of the oblong marking; the spinners are rather long and strong, those of the inferior pair being much the strongest and nearly double the length of the superior pair; their colour is brownish-yellow.

This species is nearly allied to *D. lapidicolens*, Walok.

Hab.—Hills between Sirikol and Aktalla, between the 8th and 13th of May 1874, and on the road across the Pamir from Sirikol to Panja and back between April the 22nd and May the 7th, 1874.

9.—*DRASSUS DISPULSUS*, sp. n., Pl. I, Fig. 8, ♂.

Adult male: length $4\frac{1}{2}$ lines; adult female, 5 lines.

This spider, which is allied to *D. lapidicolens*, Walok., is very similar in its general form structure, and appearance to *D. interpolator*; it is, however, of a generally brighter hue.

The *cephalothorax* is of a brownish-yellow colour, the normal indentations of a darker hue; the thoracic indentation being deep red-brown. The *falces*, *maxillæ*, and *labium* are reddish yellow-brown, the *legs* and *sternum* yellow, and the *abdomen* pale straw-yellow. The *cephalothorax* is covered with greyish-yellow pubescence.

The *eyes* are of moderate size, and not very unequal; they are in the usual position, but the hinder row is not so much curved as in *D. interpolator*; those of its central pair are much nearer together than each is to the lateral of the same row on its side; they are of an oval form, placed very slightly obliquely and less than their longest diameter's distance from each other; those of the fore-central pair are further from each other than each is from the lateral eye on its side, with which it is nearly, but not quite, in contact. The interval between the fore-centrals is nearly about a diameter, and these eyes form a line rather longer than that formed by those of the hind-central pair: those of each lateral pair are obliquely placed, and are separated by an interval equal to the diameter of the foremost of them.

The *legs* are rather long and slender, armed with longish spines, especially on the tibiæ and metatarsi of those of the two hinder pairs; their relative length is 4, 1, 2, 3. Beneath the two terminal claws of each tarsus is a small claw-tuft, with a scopula of blackish hairs along the under sides of the tarsi, and of the first and second pairs of the metatarsi also.

The *palpi* (♂) are rather short, the humeral and cubital joints are yellow, the radial and digital joints suffused with yellow-brown, the latter being the darkest: the cubital and radial joints are of equal length; the latter expands a little at its anterior extremity, which is produced (on the outer side) into a rather long, not very strong, slightly tapering apophysis: this apophysis is nearly straight, but a little divergent from the digital joint, and its extreme point is bifid; there is also another shorter, angular prominence, or projection, at the extremity of this joint, on the inner side. The digital joint is elongate-oval, equal in length to the cubital and radial joints together. The *palpal* organs are simple but rather prominent, their fore-extremity has a somewhat truncated appearance, and is broken up into several corneous spines and processes.

The *falces* are neither very long nor strong; they are straight, and their direction is but a little forwards.

The *maxillæ* and *labium* are similar in form to those of *D. interpolator*.

The *abdomen* is of an elongate-oval form, rather truncated before; it is very thinly

furnished with hairs, and in some examples an oblong dull marking, pointed at its hinder extremity, is faintly traceable on the fore-half of the upper side, where there are usually also six small dull spots, in three successive, transverse pairs, forming an oblong parallelogram; those of the middle pair are the nearest together.

The *spinners* are long, but not very stout nor very unequal in length; those of the inferior pair are the largest and strongest: their colour is like that of the legs.

The female resembles the male in colours and general structure, but is rather larger; there is, however, some little variation in size in different individuals of both sexes; the form of the genital aperture, which is rather small, is simple, but, as usual, quite characteristic.

Hab.—Káshghar, December 1873; Tanktze to Chagna and Pankong valley, between the 15th and 21st of September 1873. Between Yangihissár and Sirikol, March 1874; near Leh, August and September 1873. Yangihissár, April 1874. Yárkand and neighbourhood, November 1873. Road from Yarkand to Bursi, May 28th to June 17th, 1874; and road across the Pamir from Sirikol to Panja and back, April 22nd to May 7th, 1874. Hills between Sirikol and Aktalla, May 8th to 13th, 1874; and the Sind Valley, August 5th to 13th, 1873.

It is thus the most widely spread and numerously represented species of this family contained in the collection, occurring in all the five districts traversed.

10.—DRASSUS INTERLISUS, sp. n., Pl. I, Fig. 9, ♂.

Adult female: length $6\frac{1}{2}$ lines.

The *cephalothorax* of this fine species is of an oblong-oval shape, tolerably convex above, broadly truncated at the fore-extremity, and but very slightly constricted on the lateral margin of the caput; the profile line is very nearly level from the hinder slope to the occiput, whence it slopes forwards in a more rounding form; its colour is a bright reddish yellow-brown, deepening gradually to the caput, the fore part and sides of which are black red-brown: the whole of the *cephalothorax* is pretty densely clothed with short yellowish-grey pubescent hairs; the normal indentations are not very strongly defined, and the height of the clypeus is about equal to the diameter of one of the fore-central eyes.

The *eyes* are rather small, not very different in size, and placed in the two usual transverse curved rows, the hinder row being the longest and most curved: they are not very closely grouped together, and those of the fore-central pair are seated on a slight but perceptible prominence. These two eyes are nearly two diameters distant from each other, and are much more widely separated from each other than each is from the lateral eye of the same row on its side, with which it is nearly, but not quite, contiguous; those of the hind-central pair are oval, not obliquely placed, but with their longer diameter in a directly transverse direction; they are very near together, but not quite contiguous to each other, and each is separated by a distance nearly equal to twice its longer diameter from the lateral eye of the same row on its side; the eyes of each lateral pair are placed in an oblique line, and are rather widely separated. All the eyes, excepting those of the fore-central pair, are rather depressed or sunken into the surface of the caput.

The *legs* are strong and moderate in length, their relative length being 4, 1, 2, 3; they are yellow, deepening to red-brown on the tarsi, and are furnished with hairs, bristles, and

spines, the latter almost entirely on the tibiæ and metatarsi of the third and fourth pairs; the hairs are mostly of a grey pubescent kind. Each tarsus terminates with two curved, pectinated claws, beneath which is a claw-tuft, and the undersides of the tarsi, as well as a portion of the metatarsi, are furnished with a scopula.

The *palpi* are short; their colour is yellow, deepening to dark red-brown on the digital joint, which is double the length of the radial; it is furnished thickly with dark hairs and some black spines, and terminates with a short slightly curved black claw. The cubital is similar to the radial joint in length.

The *falces* are strong and rather long; their direction is forward, and their profile arched; they are of a deep, black red-brown colour, and are clothed pretty thickly with a greyish pubescence, besides other hairs and bristles.

The *maxillæ* are long and strong (especially at the insertion of the palpi), curved and inclined considerably towards the labium, obliquely impressed across the middle, rounded at their outer extremity, and obliquely truncated on their inner extremity: their colour is slightly less dark than that of the *cephalothorax*, and they are tipped with whitish yellow.

The *labium* is long, reaching almost to the inner extremity of the *maxillæ*; it is of an oblong form, rounded at the apex, depressed along the sides, and its colour is like that of the *maxillæ*.

The *sternum* is heart-shaped, similar in colour to the hinder part of the *cephalothorax*, and clothed with hairs.

The *abdomen* is of an oblong-oval form, of a yellowish-clay colour, and thinly clothed with brownish hairs; the spinners are short but strong, and of a yellow-brown colour, those of the superior pair being a little shorter than those of the inferior; the genital aperture and the process connected with it are of peculiar and characteristic form, and of a deep blackish red-brown hue.

The male differs in no respect of colour, general form, and character from the female. The *palpi* of the male are rather short, but strong; the humeral joint is much bent and flattened on its inner side, where it curves round the *falces*, enlarging also to the anterior extremity; the cubital joint is short, strong, tumid on the upper side, and has, at its outer extremity, a long, curved, pointed, red-brown apophysis, the point being recurved or sinuous; this apophysis reaches as far as the fore-extremity of the radial joint, which is shorter, darker coloured, and less strong than the cubital, and is furnished with two nearly black apophyses; one on the outer side is strong, curved, and has its obtuse point directed upwards; the other is shorter, straighter, more pointed, and placed near the middle of the fore-extremity, to which it is nearly perpendicular; the digital joint is large, of an oval form, dark red-brown in colour, hairy, and in length exceeds the radial and cubital joints taken together; the *palpal* organs are simple but well developed, consisting of a strong, somewhat cylindric, corneous lobe, the fore-extremity of which is broken into several not very prominent processes.

Hab.—Káshghar, December 1873; Yárkand, 21st to 27th May 1874; between Yanghis-sár and Sirikol, March 1874; neighbourhood of Leh, August or September 1873; Yárkand to Bursi, between May 28th and June 17th, 1874.

I have had some hesitation in describing this spider as a *Drassus*. It appears to be nearly allied to *Hypsinotus*, L. Koch, but the length of the labium distinguishes it readily from that genus; for the present, therefore, I include it in the genus *Drassus*, with which, at any rate, it is very nearly allied.

11.—*DRASSUS INVOLUTUS*, sp. n., Pl. I, Fig. 10, ♀.

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

This spider has an exceedingly *Chubiona*-like appearance, but the inclination of the maxillæ to the labium and the transverse impression of the former, as well as some other characters, distinguish it at once from the spiders of that genus.

The *cephalothorax* is oval, truncated at each end, but narrowest before; its colour is rather a bright yellow-brown, deepening towards the fore part of the caput; the normal indentations, especially those which divide the caput and thorax, are suffused with brown; and the thoracic indentation is shown by a short, deep red-brown line. The marginal constrictions on each side of the caput are very slight, and the profile line, including the hinder or thoracic slope, forms a pretty even, arched line; the upper side is thus tolerably convex, and its surface is thinly clothed with greyish sandy pubescence.

The *eyes* are rather small, and in the ordinary two, transverse, curved rows, of which the hinder one is the longest, and the most curved. The four central eyes form a rectangle, whose longitudinal is rather greater than its transverse diameter; those of the hind-central pair are oval, very little, if at all, oblique, and separated from each other by an interval equal to their longest diameter, and no more than half the length of that which separates each from the lateral eye of the same row on its side. Those of each lateral pair form an oblique line, and are wide apart, though rather nearer together than the hinder one is to the hind-central eye next to it; those of the fore-central pair (which are the largest of the eight) are separated by an eye's interval, and are farther apart than each is from the fore-lateral eye on its side; the height of the clypeus is slightly greater than the diameter of one of the fore-central eyes.

The *legs* are moderately strong, but not long; their relative length is 4, 1, 2, 3, and they are of a yellow colour, furnished with hairs and spines; these latter are, nearly all, on those of the third and fourth pairs; the two terminal tarsal claws have a small claw-tuft beneath them, and there is a scopula underneath the metatarsi and tarsi of the first and second, and under the tarsi of the third and fourth pairs.

The *palpi* are moderate in length and strength, similar to the legs in colour, and furnished with hairs and a few spines.

The *falces* are moderately long and strong, straight, and a little projecting in their direction; they are of a red-brown colour, furnished with bristles in front, and armed with two small teeth, close together at the inner corner of the fore-extremity.

The *maxillæ* are strong, inclined towards the labium, broader than usual near their extremities, and strongly impressed across the middle. They are of a red-brown colour, pale yellowish-white at the extremities.

The *labium* is oblong, its length being nearly about half that of the maxillæ, which it resembles in colour, with a pale margin at the apex.

The *sternum* is oval, pointed behind, and with depressions between the insertions of the legs; it is of a light brownish-yellow colour, suffused with a rather darker hue towards the margins.

The *abdomen* is oval, pointed at its hinder extremity; it is of a dull clay-yellow colour, thinly clothed with hairs; along the middle of the fore-half of the upper side is an oblong, dull-brownish marking, which tapers to a point at its hinder extremity, near which, on

either side, is a short, oblique, faint line directed backwards. Six small, dull-brown spots in three transverse pairs, also form a long rectangle on the fore-half, the foremost side of the rectangle being rather shorter than the hinder one. The intermediate pair of these spots is (as is usually the case) nearer together than the foremost pair. The spinners are tolerably long, but not very strong; those of the inferior pair are rather the longest and strongest. The genital aperture is small, and of a transverse, oblong-oval form, margined with deep red-brown.

Hab.—Sind Valley, August 5th to 13th, 1873.

12.—*DRASSUS LAPSEUS*, sp. n., Pl. II, Fig. 11, ♀.

Female (not quite adult): length rather over $3\frac{1}{2}$ lines.

Although not adult, this spider has sufficiently characteristic specific marks to entitle it to description.

It resembles *Drassus involutus* very nearly in colours, but the relative position of the eyes is quite different.

The *cephalothorax* is oval, shorter than that of *D. involutus*, and constricted laterally at the caput; it is of a pale yellow-brown colour, pretty thickly clothed with short greyish pubescence.

The *eyes* are in two transverse rows; the hinder row slightly curved, the front row shortest and less curved than the hinder one; the convexity of the curves is directed backwards; the height of the clypeus does not exceed, even if it quite equals, the diameter of one of the fore-central eyes; those of the hind-central pair are oval, oblique, and very near together, though separated by a distinct interval, and each is separated from the hind-lateral on its side by an interval equal to the diameter of the latter; those of the fore-central pair are nearly a diameter's distance from each other, each being very nearly, if not quite, contiguous to the fore-lateral on its side; those of each lateral pair are placed obliquely, and are separated by rather less than the diameter of the hind-lateral eye; the four central eyes form a regular quadrangular figure, whose longitudinal diameter is considerably greater than its transverse one.

The *legs* are strong, and moderately long; their relative length is 4, 1, 2, 3. They are slightly lighter-coloured than the cephalothorax, and are furnished with hairs (some of these are of a greyish hue), slender bristles, and spines; these last are tolerably strong, not very long, and almost entirely confined to the tibiæ and metatarsi of the third and fourth pairs, whereon they issue from small red-brown tubercles, on the upper, as well as the under, side of the joints; the only spines on the legs of the first and second pairs are one or two longish ones of a bristle-like nature on the upper side of the femora, and a single short strong one on the under side, close to the hinder extremity of the tibiæ of the second pair; there is a small black claw-tuft beneath the two terminal tarsal claws, and a thin scopula beneath the tarsi and metatarsi of the first and second pairs.

The *palpi* are similar in colour to the legs; the digital joint is longer than the radial, and has, besides hairs and bristles, a few stoutish spines.

The *falces* are short, and not particularly strong; they are directed a little forwards, and are of a reddish yellow-brown colour, with some prominent black bristles in front.

The *maxillæ* are of moderate length and strength, curved over the labium; impressed along the middle, and, with the *labium*, which is of an oblong-oval form, similar to the *falces* in colour.

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

The *abdomen* is of an oblong-oval form, rounded behind and truncated before; it is of a straw-yellow colour, thinly clothed with hairs, some of which are blackish-brown, and most numerous at, and below, the fore-extremity of the upper side; on the fore-half of the upper side, four impressed spots form a quadrangular figure whose interior side is rather less than its posterior one, and whose longitudinal is greater than its transverse diameter. The spinners are tolerably strong, but not very long; those of the inferior pair are the longest and strongest. Such traces of it as were visible indicated that the genital aperture would be of small size.

Hab.—Yangihissár, April 1874.

Genus—GNAPHOSA, Latr.

13.—GNAPHOSA STOLICZKÆ, sp. n., Pl. II, Fig. 12, ♂.

Adult male: length $4\frac{1}{4}$ to $4\frac{3}{4}$ lines.

Cephalothorax oval, rather broad and truncated before, but only slightly constricted on the margins at the fore part of the caput; the hinder slope is rather abrupt, and the profile line has a slight slope all the way to the eyes. The colour is a dull orange yellow; the normal grooves and indentations (which are not very strongly marked) are of a more dusky hue, the thoracic indentation forming a red-brown line. The surface is clothed with sandy-grey pubescence.

The *eyes* are of tolerable size, and placed, as usual, in two transverse, slightly curved rows. The convexity of the curve of the hinder row, which is the longest, is directed forwards, so that the interval between the eyes of each lateral pair is as great as that between the eyes of the fore and hind-central pairs. Those of the hind-central pair are narrow-oval, placed obliquely, and separated by a rather less interval than their longest diameter, and each is, as nearly as possible, the same distance from the lateral eye of the same row, on its side, as the latter is from the fore-lateral eye opposite to it. Those of the fore-central pair are placed on a slight prominence, and are the largest of the eight. They are separated from each other by an interval of rather less than an eye's diameter, forming a line perceptibly longer than that formed by those of the hind-central pair. Each fore-lateral eye is very near to the fore-central on its side, but not contiguous to it. The clypeus, in height, exceeds the diameter of one of the fore-central eyes, and is furnished with a few strong prominent black bristles.

The *legs* are strong and moderately long, their relative length being 4, 1, 2, 3. They are a little paler than the cephalothorax, and are clothed thinly with a greyish sandy-coloured pubescence, besides other hairs, bristles, and spines. Excepting a very few on the upper sides of the femora of all the legs, the spines are confined to the tibiæ and metatarsi of those of the third and fourth pairs. The two terminal tarsal claws appear to vary in the number of their pectinations, which do not exceed three or four at the most, and which in the third and fourth pairs seem to be fewer than in the first and second. Beneath these claws is a small claw-tuft; and the tarsi of the first and second pairs have a scopula underneath them.

The *palpi* are short and moderately strong, similar to the legs in colour, and furnished with hairs and some long bristles. The radial and cubital joints are short, but, as nearly as possible, of equal length and strength. The former terminates at its fore-extremity, on the outer side, with a small, tapering, sharp-pointed, curved, reddish-brown, corneous-looking apophysis. The digital joint is elongate-oval, rather stouter than the radial, but not quite so long as this and the cubital together. The palpal organs are simple, and not very prominent, with a curved, red-brown, tapering, sharp-pointed spine directed forwards at their fore-extremity near the inner side; and about the middle of their fore-extremity is another spine, much smaller, and of a somewhat crooked form.

The *falces* are strong and of moderate length; their direction is a little forwards; and they are of a deep rich red-brown colour, clothed in front with long, strong, spinous bristles.

The *maxillæ* are curved, and inclined towards the labium, and their width, across the middle, is much increased by a development of that part, resembling a large semi-circular lobe which gives them a somewhat sub-triangular form. They are also strongly bent, or impressed transversely, across the middle, and their colour (excepting at the extremities, which are pale yellowish) is like that of the falces.

The *labium* is oblong-oval, rounded at the apex, which is of a pale-yellowish hue; the colour of the rest being like that of the maxillæ.

The *sternum* is of a slightly heart-shaped, oval form, of a reddish yellow-brown colour, impressed between the insertions of the legs, and clothed with hairs.

The *abdomen* is of an oblong-oval form, rounded behind, rather truncated before, and moderately convex above. It is of a straw-yellow colour; the normal oblong, longitudinal marking on the fore-half of the upper side is generally obsolete; now and then it is slightly traceable, and a small patch at its fore-extremity is of a yellow-brown hue. The whole abdomen, above and below, is clothed with greyish sandy pubescence, mixed thinly on the upper side, chiefly, with long, nearly erect, tapering, strongish, black-brown bristles. The spinners are very unequal in size, those of the inferior pair being much the longest and strongest.

The *female* resembles the male in colour and in all other general characters, but differs in size (being 5 to 6 lines in length), and in having rather longer legs. The genital aperture is small, of characteristic form, and edged with red-brown.

This fine and very distinct species, which I have dedicated to its discoverer, the late Dr. Stoliczka, was found in the following localities.

Hab.—Between Yangihissár and Sirikol, March 1874; from Yárkand to Bursi, May 28th to June 17th, 1874; also at Yangihissár, April 1874; and Káshghar, December 1873.

14.—GNAPHOSA PLUMALIS.

Gnaphosa plumalis, Cambr., P. Z. S. 1872, p. 225, pl. xv, fig. 3.

Hab.—An immature female, which I have no doubt is of this species, was found on the route from Yárkand to Bursi, May 28th to June 17th, 1874.

15.—GNAPHOSA MÆRENS, sp. n., Pl. II, Fig. 13, ♂.

Adult female: length 3 to 3½ lines.

The whole of the fore part of this spider is of a dull yellow-brown colour; the falces,

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maxillæ, and labium being, however, darker than the rest; the falces, indeed, are dark red-brown.

The *cephalothorax* is oval, truncated both before and behind, and slightly constricted on the margins at the fore part of the caput. The normal grooves and indentations are distinct, but not very strongly marked; the hinder slope is rather abrupt, but convexly rounded, and the profile line of the upper part is as nearly as possible level, the fore part of the caput (including the ocular area) rounding, and sloping a little forwards. The surface is clothed with greyish pubescence, mixed with more erect and darkish hairs and bristles. The lateral margins are bounded by a black-brown line.

The *eyes* are in the ordinary position, forming two transverse curved lines; the convexity of the curve of the hinder row is directed forwards. This row is the longest and much the most strongly curved, the foremost row being, in fact, almost straight, its convexity being rather directed backwards; thus the interval between the eyes of each lateral pair is considerably greater than that between the fore and hind-central pairs. They are seated on blackish tubercles; those of the hind-central pair are oval, oblique, divided by an interval equal to the length of their longest diameter, and, with the fore-central pair, form a square whose fore side is very slightly the shortest; each of the hind-central eyes is separated from the hind-lateral next to it by more than twice its longest diameter; the fore-laterals are the largest of the eight, and each is separated from the fore-central next to it by less than the diameter of the latter; the interval between the fore-centrals being rather greater than this diameter; the height of the clypeus is about equal to the space, taken in a longitudinal line, between the fore and hind-central pairs.

The *legs* are strong and moderately long; their relative length being 4, 1, 2, 3. They are pretty thickly furnished with hairs, bristles, and spines; the last are the longest, and are most numerous on those of the third and fourth pairs; there are, however, several spines on the under sides of the tibiæ and metatarsi of the first and second pairs also; beneath the two terminal claws is a small claw-tuft, and there is a thin scopula beneath the tarsi and a portion of the metatarsi of the first and second pairs.

Palpi rather short and slender; the radial joint is rather longer than the cubital, and the digital joint is longer than the radial, and slightly suffused with reddish brown. They are furnished with hairs, bristles, and a few slender spines, and terminate with a single curved claw.

The *falces* are strong, moderate in length, rather prominent near the base in front, and furnished with long prominent bristles and hairs.

The *maxillæ* are curved, and considerably inclined to the labium; and are enlarged in a rather semi-circular form at the outer side, so as to be very broad across the middle, where they are also strongly impressed.

The *labium* is of an oval form, truncated at its base, and rounded at the apex.

The *sternum* is oval, pointed behind, and depressed between the insertions of the legs.

The *abdomen* is oblong-oval, truncated before, rounded behind, and not very convex above, but projecting a little over the base of the cephalothorax; it is of a deep mouse-brown colour with three or four transverse bars of different lengths, and tending to run one into the other, formed by silky-grey pubescence on the fore-half of the upper side; these are succeeded by several transverse, blackish, but inconspicuous, angular lines or chevrons towards the spinners. A silky-grey pubescence appears to be also more or less dispersed on the hinder part; and the whole upper side is more or less speckled with black points, some of which,

on the fore-half, may be traced in two longitudinal central lines converging backwards, as is indicating the position of the normal, but here obsolete, dorsal marking; the fore margin is furnished beneath with a tuft of long, strong, upturned bristles; the under side is of a uniform yellowish mouse-brown colour: the spinners of the inferior pair are yellow-brown, and much the largest and strongest.

The male resembles the female in all general characters, colours, and markings, and differs but very little in size. The *palpi* are short but moderately strong. The radial joint is a little shorter than the cubital, and has its fore extremity, near the outer side, produced into a tolerably strong, rather long, tapering-pointed apophysis, the point spinous-looking, red-brown, and slightly bent or curved; this apophysis is about equal to the joint itself in length. The digital joint is large, of an elongate-oval form, hairy, and rather longer than the radial and cubital joints together; the palpal organs are well developed, but simple, with a tolerably strong, sharp pointed, slightly curved process of a brightish red-brown colour situated on their inner side, and directed to their fore extremity.

Hab.—Hills between Sirikol and Aktalla, May 8th to 13th, 1874; between Yangihissár and Sirikol, March 1874; and from Yárkand to Bursi, May 28th to June 17th, 1874.

Genus—*PROSTHESIMA*, L. Koch.

16.—*PROSTHESIMA CINGARA*, Camb.

Prosthesima cingara, Cambr., P. Z. S., 1874, p. 382, pl. li, fig. 10, ♀.

The female only of this spider has been described. The following is a description of the male.

Adult male: length 2 lines.

Cephalothorax oval, broadest towards the hinder part, whence it narrows gradually to the fore extremity; its upper side is flattened-convex above, and a little highest at its posterior extremity; it is smooth, of a deep, rich brown colour, and thinly clothed with hairs.

The *eyes* are in two very slightly curved rows, the curves directed backwards, and the front row the shortest; those of the hind-central pair are small, oval, but not placed obliquely, near to each other, but separated by a distinct interval, less than that which divides each from the hind-lateral on its side; the fore-lateral eyes are the largest of the eight, and the hind-centrals the smallest; the fore-centrals are divided by an interval rather greater than a diameter, and each is almost contiguous to the fore-lateral on its side; the interval between each hind-lateral eye and the hind-central next to it is nearly about the same as that which divides the eyes of each lateral pair. The height of the clypeus is less than half that of the facial space.

The *legs* are moderate in length and strength, the femora strongly incrassated on their upper sides; they are furnished with hairs, bristles, and spines, the last chiefly on the tibiæ and metatarsi of the third and fourth pairs. Their colour is deep blackish-brown, that of the metatarsi and tarsi being of a dull yellowish-brown hue.

The *palpi* are moderately long and strong and of a brownish-yellow colour; the radial is rather less than the cubital joint in length, and has its fore extremity on the outer side prolonged into a strong, tapering, pointed, dark red-brown, straight, and rather prominent apophysis, as long as, if not longer than, the joint itself; the digital joint is large, oval, hairy, and of a yellowish-brown colour; its length exceeds that of the radial and digital joints

together; the palpal organs are well developed, and consist of several characteristic corneous processes and spines.

The *falces* are moderate in length and strength, and are rather paler coloured than the cephalothorax; they are straight, and project a little forwards, being also rather roundly prominent near their base in front, and furnished with bristles and hairs.

The *maxillæ* and *labium* are similar to the falces in colour, and their form is normal.

The *sternum* is oval, blunt-pointed behind, and like the *maxillæ* in colour.

The *abdomen* is of an oblong-oval form, rounded behind, truncated before, and flattened convex above; it is hairy and of deep sooty-brown colour, approaching to black, with a large shining, deep-brown coriaceous patch on the fore part of the upper side, of which it covers the whole width, but is narrower and rounded at its hinder part. The spinners are rather short, but tolerably strong; those of the superior pair are the longest and strongest.

The female resembles the male in colours and general structure; the genital aperture is characteristic, consisting of an oblong opening slightly constricted across the middle, and edged strongly on the lower side with red-brown, below which are two round, shining, boss-like corneous-looking markings.

Hab.—Yárkand, May 21st to 27th, 1874; hills between Sirikol and Aktalla, May 8th to 13th, 1874; and route across the Pamir from Sirikol to Panja and back, April 22nd to May 7th, 1874.

Genus—*MICARIA*, C. L. Koch.

17.—*MICARIA CONNEXA*, sp. n.

Adult male: length not quite 2 lines.

This spider is very closely allied to *Micaria pulicaria*, Sund., which it resembles in size and general characters. It may, however, be distinguished by the absence of the converging lines of white hairs on the cephalothorax, which is also deeper-coloured, and by the shorter and rather narrower form of the digital joint of the palpus; the radial joint is shorter than the cubital, and has a very sharp-pointed, tapering, rather prominent apophysis at its extremity on the outer side; the corresponding apophysis in *M. pulicaria* being much shorter and less sharp pointed.

The *abdomen* is black, covered with iridescent scales, reflecting green, purple, and reddish golden hues, but there were no white transverse lines or spots visible. The cephalothorax is of a deep rich red-brown hue, thinly clothed with grey hairs and iridescent scales.

A female example had a largish semi-circular white spot of white hairs about the middle of the upper side of the abdomen, and another on each side, the three forming a straight line traversing the upper side of the abdomen. In other respects it resembled the male. Probably, different examples of this species would present the same varieties in respect to the white spots and markings on the abdomen as are characteristic of *M. pulicaria*.

Hab.—Hills between Sirikol and Aktalla, May 8th to 13th, 1874.

18.—*MICARIA PALLIDA*, sp. n.

Immature male: length $2\frac{1}{2}$ lines.

This spider is allied to the preceding, but its colours and markings will at once distinguish it.

The *cephalothorax* is of ordinary form and of a brightish yellow-brown colour, clothed with greyish and iridescent hairs and scales.

The *eyes* are in two nearly concentric curved rows, like those of *M. connexa* and others, the front row being the shortest.

The *legs* are moderately long and tolerably strong; their relative length is apparently 4, 1, 2, 3. They are similar in colour to the cephalothorax, the sides of the tibiæ being suffused a little with brown, and the tarsi have the appearance of being annulated with the same colour. They are clothed with grey and iridescent hairs; the former disposed somewhat in longitudinal lines.

The *palpi* are not very long; their colour is pale yellow; the cubital joint is shorter than the radial, and the digital is of a long, narrow-pointed, oval form. Being immature, these remarks on the palpi would, perhaps, not be strictly applicable to those of the adult spider, though the proportions of the several joints would probably be the same as in the immature state.

The *falces* are tolerably long, strong, perpendicular, similar in colour to the cephalothorax, and furnished with greyish hairs and dark bristles.

The *abdomen* is of a dull yellow-brown hue, clothed thinly with iridescent, scaly hairs. It has two parallel, transverse, slight constrictions near the middle of the upper side; an indistinct longitudinal median brown marking, pointed at its posterior extremity, occupies the fore-half of the upper side, followed towards the spinners by a longitudinal series of several less distinct, transverse, curved, brown lines, the convexity of the curves directed forwards. These markings would be probably invisible, except when in spirits of wine.

Hab.—Found on the route across the Pamir from Sirikol to Panja and back, April 22nd to May 7th, 1874.

Genus—*CLUBIONA*, Latr.

19.—*CLUBIONA DELETRIX*, sp. n., Pl. II, Fig. 14, ♂.

Adult male $2\frac{3}{4}$ lines: adult female, $3\frac{3}{4}$ lines.

In colours and pattern this spider is very like *Clubiona compta*, C. L. Koch, and is still more nearly allied to *C. robusta*, L. Koch (an Australian species). It is, however, smaller than the latter, and in the palpi differs from both.

The *cephalothorax* is of ordinary form, and its colour is brownish-yellow, tinged slightly with reddish-brown towards the fore part of the caput. The normal indentations are dusky; the junction of the caput and the thoracic segments is marked with a short, fine, longitudinal red-brown line, and the surface is thinly clothed with greyish-sandy pubescence.

The *eyes* are of tolerable size, though not very unequal. They occupy the whole of the width of the upper fore part of the caput, and, when seen from above and behind, are placed in the usual two curved lines, the convexities of which are in opposite directions, and enclose a somewhat oval area. The hinder row is much the longest, and the fore-central pair are rather the largest of the eight. Those of the hind-central pair are considerably further from each other than each is from the hind-lateral on its side, the interval somewhat exceeding two diameters. Those of the fore-central pair are separated by about half a diameter, and are rather farther from each other than each is from the fore-lateral on its side; each fore-lateral eye is separated from the hind-lateral next to it by an interval similar to that which separates

the two fore-central eyes; and each of the hind-central eyes is separated by a similar interval from the hind-lateral and fore-central eyes on its side; the front row, taken with the hind-lateral eyes, form a long, regularly curved line, the eyes of which are near together, and the intervals as above explained, not very different. The clypeus is very low, scarcely equalling half the diameter of one of the fore-central eyes.

The *legs* are tolerably long, but not very strong; their relative length is apparently 4, 2, 1, 3. Their colour is yellow; the tibiæ, tarsi, and metatarsi of the first and second pairs being slightly tinged with reddish-brown. They are furnished with hairs, bristles, and longish dark spines. Each tarsus ends with two curved, pectinated claws, beneath which is a small compact claw-tuft.

The *palpi* are short and similar in colour to the legs. The cubital and radial joints are of the same length, and the radial and digital joints are together greater in length than the humeral joint. The radial has, at its fore extremity on the outer side, a small, tapering, pointed, red-brown apophysis, whose direction is rather upwards. The digital joint is of tolerable size, of an elongate oval form, rounded at its base, and pointed at its fore extremity, which is densely clothed with a large patch of short, pale mouse-coloured, pubescent hairs. The palpal organs consist of a large, very prominent, oval lobe, at the fore extremity of which is a slender, coiled, filiform black spine springing from a strongish red-brown corneous process. Besides a minute filiform, slightly curved spine behind this coiled one, the large lobe has a broadish, yellow-brown, glossy, rather bent fillet running along its outer side, probably indicating the course of an internal duct.

The *falces* are moderately long, strong, somewhat subangularly prominent near their base in front, furnished with some strongish prominent bristles in front, and of a dark red-brown colour.

The *maxillæ* and *labium* are of the normal form, and of a reddish yellow-brown colour.

The *sternum* is oval, pointed behind, and its colour is yellow.

The *abdomen* is of somewhat narrow-oval form, and moderately convex above. Its colour is a dull luteous yellow, marked, more or less distinctly, with dark red-brown markings on the upper side. An elongated longitudinal marking pointed at its hinder extremity, occupies the middle of the fore half; and on the hinder half are several more or less imperfect angular bars or chevrons of the same colour; the vertices of these chevrons are usually obsolete, and their extremities are dilated and run together, so as to form two more or less diffused, lateral longitudinal, broken bands, or rows of spots and patches, which converge to the spinners: the sides have, at times, also some irregular, oblique lines of red-brown markings. The spinners are of moderate length, those of the superior pair being much more slender than those of the inferior.

The *female* is rather larger than the male, but does not differ in colours and markings. The form of the genital aperture is well defined and characteristic, but its peculiarities can only be shown satisfactorily by a figure.

Hab.—Murree to Sind valley, July 14th to August 5th, 1873.

20.—CLUBIONA LATICEPS, sp. n., Pl. II, Fig. 15, ♀.

Adult female: length $4\frac{1}{2}$ lines; length of cephalothorax 2 lines, breadth $1\frac{1}{2}$.

This spider is allied to *Clubiona deletrix*, but may be at once distinguished by the

absence of any markings on the abdomen, as well as by its larger size and broader cephalothorax. It is also nearly allied to *Clubiona cambridgii*, L. Koch, found in New Zealand, but may be distinguished from that species too by the same characters. From *C. holosericea* Degeer=*C. deinognatha*, Camb., it differs by its generally robuster form, less prominent falces, and less broad cephalothorax.

The foregoing remarks will give a general idea of this spider; the following is a more detailed description.

The *cephalothorax* is of a bluff-oval form, round behind, and truncated in front. The caput is constricted on its lateral margins, but is evenly and well rounded above. The ocular area is broad, and is a little prominent over the clypeus, which is almost obsolete. It is of a reddish yellow-brown behind, deepening into dark red-brown on the fore part of the caput, and is clothed with a short sandy pubescence: the normal indentations are of a deeper hue than the rest.

The *eyes* are rather small, but in the usual position. Those of the hinder row are equal in size. Those of the hind-central pair are farther from each other than each is from the hind-lateral on its side, and each is separated by nearly about the same interval, from the fore-central eye nearest to it. Those of the fore-central pair are the largest of the eight, and are divided by a diameter's distance; and from each of them the fore-lateral on its side is separated by rather less than a diameter. Those of each lateral pair are placed very obliquely, and are separated by an interval only a little less than that which divides the fore and hind-central pairs.

The *legs* are strong, moderately long, and of a dull orange-yellow colour; those of the first and second pairs being tinged with red. Their relative length appears to be 4, 2, 1, 3; and they are furnished with hairs, slender bristles, and strongish spines. Each tarsus ends with two curved pectinated claws, beneath which is a compact claw-tuft, followed, over the under surface of the joint as well as over some portion of that of the metatarsus, by a scopula of short compact hairs.

The *palpi* are short and slender, furnished with hairs and strong bristles. The radial joint is shorter than the digital, but longer than the cubital: the colour of the palpi is like that of the legs. The digital joint is suffused with reddish, rather enlarged at its anterior extremity, which is pretty thickly furnished with hairs, particularly on the upper side.

The *falces* are long and powerful, perpendicular, rather prominent near their base in front, where they are furnished with strong, prominent bristles: their colour is deep red-brown.

The *maxillæ* and *labium* are of the usual form, and a little lighter in colour than the falces; the inner extremities of the former and the apex of the latter being whitish yellow.

The *sternum* is oval, clothed with hairs, and of a yellow-brown colour.

The *abdomen* is oval, of a brownish clay-colour, thickly clothed with sandy and greyish pubescence, together with a few longer, erect, scattered, black and yellowish hairs. The spinners are moderate in length and rather strong; those of the inferior pair are the largest and strongest. The form of the genital aperture is characteristic.

Hab.—Murree, June 11th to July 14th, 1874.

21.—CLUBIONA LAUDATA, sp. n., Pl. II, Fig. 16, ♂.

Adult male: length rather under 2 lines.

The *cephalothorax* of this small species is broad-oval, truncate before, and the lateral

constriction of the caput is very slight; it is glossy, and of a brownish-yellow colour, rather deepening towards the fore margin. The clypeus is almost obsolete.

The *eyes* are small, not greatly differing in size; they are in the usual position, and occupy the whole width of the forepart of the caput; the two rows are rather nearer together than in the two former species, but the relative position of the various eyes is very similar. The interval between those of the hind-central pair is double that between each and the hind-lateral eye on its side.

The *legs* are moderate in length and strength; their colour is yellow, and they are furnished with hairs and a few spines, but the latter had been mostly broken off.

The *palpi* are short, and their colour is yellow, excepting the digital joint, which is brown; the radial is rather shorter than the cubital joint and has a moderate-sized, red-brown, pointed, tapering, slightly curved apophysis at its extremity on the outer side. The digital joint is oval, of moderate size, and slightly exceeds in length the radial and cubital joints together; the palpal organs consist (so far as I could ascertain) of a simple, large, oval, convex lobe, apparently surrounded on its outer margins by a long, slender, filiform spine.

The *falces* are strong and massive, a little projecting, roundly prominent near their base in front, and similar in colour to the cephalothorax.

The *maxillæ* and *labium* are of normal form and similar in colour to the cephalothorax.

The *sternum* is oval, pointed at its hinder extremity, and its colour is yellow.

The *abdomen* is rather small, and its form oval; its colour is a dull yellowish, thickly mottled and streaked above, and on the sides, with rusty red. The fore half of the upper side has an elongate longitudinal marking of a deeper rusty red-brown than the rest, bisected along its length by a fine, but not very clear, yellowish line. The spinners are pale yellowish, of moderate size and length, those of the inferior pair being a little the stoutest.

The *female* is rather larger, but resembles the male in colours and markings, except that the abdomen is less marked and streaked with rusty red; the form of the genital aperture, which is quite small, is characteristic.

Hab.—Road from Yárkand to Bursi, May 28th to June 17th, 1874.

Genus—*CHIRACANTHIUM*, C. L. Koch.

22.—*CHIRACANTHIUM ADJACENS*, sp. n., Pl. II, Fig. 17, ♂.

Adult male: length rather over 3 lines.

The form of the cephalothorax is of the ordinary type; in fact, this spider in its general form, structure, and appearance, bears a close resemblance to *Chiracanthium nutrix*, *C. carnifex*, and other allied species. It must, however, be premised that, the spider now described having been preserved in spirit of wine for a long time, its present colours are in all probability very unlike those of the living spider, in which perhaps the abdomen may have been of a more or less green hue.

The *cephalothorax* is of a dull brownish-yellow colour clothed with sandy-grey pubescence; the normal indentations are distinct, and a largish depression surrounds the thoracic junction.

The *eyes* are rather small, in two transverse rows occupying the whole width of the fore part of the caput; the hinder row is curved, the convexity of the curve directed backwards; the front row is shortest and nearly straight, those of the hind-central pair are rather nearer together than each is to the hind-lateral eye on its side, the distance between these being

equal to perhaps a little over two diameters. Those of the fore-central pair are also nearer to each other than each is to the fore-lateral on its side, being less than two diameters' distance from each other; those of each lateral pair are seated rather obliquely on a tubercle and are contiguous to each other; the interval between each fore-central eye and the hind-central opposite to it is rather greater than the diameter of the former, the height of the clypeus being less.

The *legs* are long, slender, and tapering; they are of a rather dull straw-yellow colour, all furnished with hairs and spines, and their relative length is 4, 1, 2, 3. Each tarsus ends with two claws hidden by a dense black claw-tuft, from which a thin scopula extends backwards beneath the joint, and some little way also along the under side of the metatarsi, where it merges among the ordinary hairs with which those parts are furnished.

The *palpi* are short and moderately strong, their colour is similar to that of the legs, except that the digital joint is dark brown; the humeral joint is rather longer than the cubital and radial joints together, the latter being double the length of the cubital, furnished with long bristly hairs, and terminating at its fore extremity with two apophyses; one of these on the outer side is tolerably long, of a deep red-brown colour, and corneous nature, sinuously bent, tapering, single-pointed, the point sharp, but not attenuated; the other apophysis is on the inner side, short, obtuse, rounded at its extremity, and margined with red-brown; the digital joint is large and hairy, the basal half roundish, the fore half somewhat cylindrically attenuate, the division between the two portions being (as usual) well marked by a sudden notch-like, or angular, depression on the outer side; the normal spur, directed backwards from the hinder part of the digital joint, is of a deep black red-brown colour; it tapers to a sharp point and is directed outwards, crosses the outer radial apophysis, its length being nearly about equal to that portion of the outer margin of the digital joint where the abrupt indentation divides it from the semi-cylindrical extremity. The palpal organs consist of a large roundish bulb, from the outer side of the fore part of which a tapering spine coils round to the base, where it ends in a filiform point; and along the middle is a rather long, pale, corneous process, broad, roundish, blunt, and reddish-brown at its fore extremity, which extends well beyond the bulb and has a semi-diaphanous membranous point in connection with it.

The *falces* are straight, moderately long, strong, and not very much porrected; they are roundly prominent near their base in front, when looked at in profile, and roundly cut away for a very little space on the inner side of the fore extremity; their colour is a deep, rich, shining red-brown.

The *maxillæ* are of the ordinary form, inclined a little towards the labium, which is oblong and truncated at the apex, the corners being a little rounded off; the colour of the labium is dark red-brown, the apex narrowly margined with pale whitish-yellow; the fore half of the maxillæ is of a less deep red-brown colour, the basal portion being yellow.

The *sternum* is heart-shaped, yellow, and depressed between the points of the insertion of the legs.

The *abdomen* is oval, broadest in the middle, and projects fairly over the base of the cephalothorax; it is clothed thinly with hairs, and is of a dull, luteous-yellow colour, thickly spotted with small, yellowish-white, cretaceous-looking spots, leaving the normal elongate macula distinct on the forehalf of the upper side; this macula is rather pointed at its hinder extremity. The spinners are rather small, of moderate length, and of a brownish-yellow colour.

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The *female* is rather smaller, but resembles the male in general colours and form; the spiracular plates are of a deep red-brown colour and the genital aperture is small, of a transverse-oval shape margined with red-brown, and on each side of it is a longitudinal row of several short transverse red-brown lines, the rows converging forwards.

Hab.—Murree, June 11th to July 14th, 1873.

23.—CHIRACANTHIUM APPROXIMATUM, sp. n., Pl. II, Fig. 18, ♀.

Adult females: length a little over 4 lines.

In colours, form, and general structure, this spider is exceedingly like *Chiracanthium adjacens*, Cambr. The falces, however, project rather more forward, and the second or terminal joints of the spinners of the superior pair are longer. The cephalothorax, legs, palpi, and sternum are of a uniform straw-yellow colour; the falces, maxillæ, and labium are dark brown, the base of the maxillæ yellowish; and the abdomen is of a dull clay-colour, obscurely marked with whitish cretaceous-looking spots. The spiracular plates being of the same colour as the rest of the abdomen, furnish also a good specific character, those of *C. adjacens* being dark reddish-brown; the form and size of the genital aperture are also quite different, being very small, of a transverse, somewhat, oblong form, edged narrowly with reddish-brown, and divided across the middle by a broadish pale septum.

Hab.—Murree to Sind Valley, July 14th to August 5th, 1873.

Genus—AGRŒECA, Sund.

24.—AGRŒECA DEBILIS, sp. n., Pl. II, Fig. 19, ♀.

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

This spider scarcely differs in form and structure from *Agrœca brunnea*, Bl.

The *cephalothorax* is yellow, thinly clothed with brownish hairs. The normal converging indentations are dusky, and the junction of the caput with the thoracic segments is marked by a short, fine, longitudinal, red-brown line.

The *eyes* are of moderate size, and placed in two transverse, curved rows, the convexity of both being directed backwards, but the hinder row is the longest and the most strongly curved of the two; they differ but little in size, and are all seated on black spots; those of the hind-central pair are rather further from each other than each is from the hind-lateral on its side, the latter interval being nearly about equal to an eye's diameter; the eyes of the fore-central pair are contiguous to each other, and each is separated from the hind-central eye opposite to it, by an eye's diameter, and from the fore-lateral on its side by a distinct, but very small, space. The height of the clypeus, in the middle, is equal to the diameter of one of the fore-central eyes.

The *legs* are tolerably long and strong, of an immaculate yellow colour, and are furnished with hairs and spines; the spines on those of the first and second pairs are long, strong, and consist of two (parallel) rows beneath the metatarsal and tibial joints; each tarsus ends with two rather weak and apparently non-denticulate claws, beneath which is a small, blunt, yellow-brown, corneous-looking projection, furnished with several bristly hairs turned upwards in opposition to the tarsal claws. The relative length of the legs appears to be 4, 1, 2, 3.

The *palpi* are moderate in length, and similar in colour and armature to the legs; the digital is double the length of the radial joint, and terminates with a weak, curved, black claw.

The *falces* are of moderate length and strength, straight, perpendicular, and obliquely cut away on the inner sides towards the extremity; their colour is yellow, and they are furnished with hairs and longish bristles.

The *maxillæ* are rather strong, moderately long, straight, somewhat rounded at their extremities, and similar to the *falces* in colour.

The *labium* is short, rounded at the apex, and of a yellowish-brown colour.

The *abdomen* is oval, truncated before, rounded and broadest behind; it is thinly clothed with hairs of a clay-yellow colour, marked above and on the sides with blackish brown; these markings were very much broken and fragmentary in the example described, but they appear to define faintly the ordinary oblong, median, longitudinal marking on the fore half, and some angular bars on the hinder half of the upper side, with some oblique lines on the sides. The spinners are very short; the second joints of those of the superior pair are barely perceptible. The genital aperture appears as a densely black, glossy patch in the centre of a largish yellow-brown, convex area, and is rather densely clothed with bristly hairs, whose points converge over the black aperture.

Hab.—Káshghar, December 1873.

25.—*AGRŌECA FLAVENS*, sp. n., Pl. II, Fig. 20, ♀.

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

The whole of the fore part of this spider is of a dull, slightly brownish-yellow colour, the *labium*, however, being dark yellow-brown with a yellowish apex, and the *abdomen* of a straw-yellow thinly clothed with yellowish-grey hairs. In form and structure this species resembles *Agrœca debilis*; the normal indentations on the *cephalothorax* are well marked, and of a deeper hue than the rest, and it is clothed with hairs similar to those on the abdomen. The *eyes* are small, placed in two, nearly straight, transverse rows, and seated on black spots; the front row is considerably the shortest; those of the hind-central pair are very slightly farther from each other than each is from the hind-lateral eye on its side, and each is separated from the fore-central opposite to it by no more than, if quite so much as, the diameter of the former; those of the foremost row are very near to each other, the interval between those of the fore-central pair being slightly greater than that which divides each from the fore-lateral on its side; those of each lateral pair are placed very obliquely, and have an interval between them of nearly the diameter of the hinder one; the fore-laterals are the largest of the eight; the height of the clypeus is equal to the diameter of one of the fore-central eyes.

The *legs* are tolerably long and strong, furnished with hairs and rather long, strongish spines; each tarsus ends with two curved claws, apparently without any denticulations, below them being a rather less conspicuous, corneous, yellow-brown prominence than in *Agrœca debilis*, but furnished with similar upturned bristly hairs; the relative length of the legs appears to be 4, 1, 2, 3; the spines on the two first pairs are in two parallel longitudinal rows beneath the metatarsal and tibial joints.

The *palpi* are moderately long and strong; the radial and digital joints are yellow-

brown; the latter are the darkest, and are distinctly less than double the length of the former; they are furnished with hairs, bristles, and spines, and terminate with a small black claw.

The *maxillæ* are slightly inclined to the *labium*, and the latter is slightly hollowed or notched at the apex.

The *abdomen* is of a pale straw-yellow colour; on the fore half is a very faintly visible, narrow, elongated marking prolonged posteriorly into a line-like point, and of a slightly darker hue than the rest of the abdomen; a little in front of the middle are six reddish-brown impressed spots, three in each of two curved lines, whose convexities are opposed to each other so as to form a figure like a dice-box; the intermediate spot of each line is much nearer the anterior than the posterior one, and the interval between the two anterior spots is equal to that between the two posterior ones. The form of the abdomen is somewhat oblong-oval, truncated before and rounded behind. The genital aperture consists of two somewhat roundish, large, black, contiguous spots in a transverse line, but much obscured by numerous bristly hairs of a sandy-grey hue; the spinners of the inferior pair are double the length of the superior one, and all are of a yellow-brown colour.

Hab.—Yárkand, May 21st to 27th, 1874.

Genus—*TRACHELAS*, L. Koch.

26.—*TRACHELAS COSTATA*, sp. n., Pl. II, Fig. 21, ♀.

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

The *cephalothorax* is short-oval, rather longer than broad, truncated before, moderately, and pretty uniformly, convex above, and constricted on the lateral margins of the caput; the normal indentations are distinct and rather darker coloured than the rest, which is of a yellow-brown colour; the clypeus is less in height than the diameter of one of the fore-central eyes. The eyes are of moderate size, and do not differ greatly in that respect; those of the fore-lateral pair are perhaps slightly the largest of the eight; they are placed as in *Clubiona*, but the area is shorter and broader, the eyes being more closely grouped together. The hinder row is straight, the front row much shorter and curved, the convexity of the curve directed forwards. Those of the hind-central pair are rather less than double as far from each other as each is from the hind-lateral eyes on its side; the interval between each and the hind-lateral being scarcely the diameter of the former; the interval between those of the fore-central pair is less than half a diameter, and each is almost, but not quite, contiguous to the fore-lateral eye on its side. The eyes of each lateral pair are placed obliquely and are separated by about one-third of the diameter of the hind-lateral eyes. The interval between each of the hind-central eyes and the fore-central opposite to it, is equal to the diameter of the latter.

The *legs* are rather short, strong, furnished with hairs and slender bristles only; their relative length appears to be 4, 1, 2, 3, though the difference in length is not great. They are of a brownish-yellow colour, lighter than the *cephalothorax*, and faintly annulated with dusky brown. Each tarsus ends with two curved pectinated claws, beneath which is a small, not very dense, claw-tuft; and beneath the tarsi and metatarsi are some short, stout hairs of uniform length, but scarcely amounting to a scopula.

The *palpi* are short, similar to the legs in colour and armature; the digital joint is about half as long again as the radial, and terminates with a very fine, curved, and almost imperceptible claw.

The *falces* are short but strong, straight, and nearly perpendicular; they are roundly prominent at their base in front; their fore surface is granulose and bristly, and their colour like that of the cephalothorax.

The *maxillæ* are short, convex, and broad; their extremities, where they are obliquely and rather roundly truncated, being the broadest.

The *labium* is short, broad, and of a somewhat oblong-oval form, the apex being very slightly indented or hollowed; the colour of the *labium*, as well as of the *maxillæ*, is like that of the *falces*.

The *sternum* is heart-shaped, uniformly convex, slightly punctuose, furnished with short bristly hairs, and similar to the legs in colour.

The *abdomen* is oval, more convex above than in spiders of the genus *Clubiona* in general, and projects over the base of the cephalothorax; it is of a dull clayey-brown colour; the fore half of the upper side has a deep brown, longitudinal, central marking, enlarged in the middle, sharp pointed at its posterior extremity, and followed to the spinners by about six angular deep-brown bars, or chevrons, which decrease in length, from the first to the last, just above the anus; the angles of these chevrons are directed forwards; that of the first touching the pointed extremity of the central longitudinal markings on the fore half. The sides of the abdomen are more or less covered with brown striated markings; the spinners are rather short, moderately strong, and those of the superior and inferior pairs are of about equal length. The genital aperture is of peculiar and characteristic form.

Hab.—Murree, June 11th to July 14th; and near Leh, August and September, 1873.

Family—*DICTYNIDES*.

Genus—*DICTYNA*, Sund.

27.—*DICTYNA ALBIDA*, sp. n.

Adult female: length less than $1\frac{1}{2}$ lines.

This spider belongs to the *Dictyna variabilis* (Koch) group.

The *cephalothorax* is depressed on the sides and hinder part, and the caput is rounded on the upper side, but not raised above the usual level; it is of a dull yellowish colour, with a rather irregular, but distinct, marginal stripe, immediately above which, on each side, is a broad yellowish-brown, longitudinal band; the whole is covered, but not densely, with coarse white hairs; the height of the clypeus is less than half that of the facial space, being not much more than equal to the diameter of one of the fore-central eyes.

The *eyes* are small and placed in two transverse curved rows near together; the hinder row is considerably the longer; those of the hinder row are equidistant from each other, the centrals being slightly the largest of the eight; those of each lateral pair are placed obliquely, and are very near to each other, but not quite contiguous; the interval between the fore-centrals is considerably greater than that between each and the lateral eye next to it; the latter interval being scarcely equal to the diameter of one of the fore-central eyes, which are the smallest of the eight; the interval between the fore- and hind-central pairs is equal to the diameter of one of the hind central eyes. The fore-central eyes form very nearly a square, the posterior side being rather the longest.

The *legs* are short and slender, their relative length appears to be 4, 1, 2, 3; they are of

a pale, dull yellow colour, furnished with hairs; and the metatarsi of the fourth pair have calamistra on their upper sides.

The *palpi* are rather short, slender, and similar to the legs in colour.

The *falces* are moderate in length and strength; they project a little forwards, and (looked at from in front) are curved, the curves directed outwards, leaving a slightly oval space between them; their colour is dull brownish-yellow.

The *maxillæ*, *labium*, and *sternum* are of normal form, and rather paler in colour than the *falces*.

The *abdomen* is oval, not very convex above, but projects considerably over the hinder part of the *cephalothorax*; it is of a dull brownish-yellow colour, covered with cretaceous white spots and small patches; four small red-brown spots form nearly a square on the middle of the upper side. In front of the ordinary spinners is a short, transverse, supernumerary mammillary organ, divided across the middle by a perceptible suture.

The genital aperture is small and inconspicuous.

Hab.—Between Yangihissár and Sirikol.

Family—*AGELENIDES*.

Genus—*ARGYRONETA*, Latr.

28.—*ARGYRONETA AQUATICA*.

Argyroneta aquatica, Clerck, Sv. Spindl., p. 143, pl. 6, tab. 8.

I can find no difference between examples contained in Dr. Stoliczka's collection and those found in Europe.

Hab.—Yárkand and neighbourhood, November 1873.

Genus—*TEGENARIA*, Latr.

29.—*TEGENARIA*, sp.

An immature female, too much damaged to be recognisable beyond its generic affinity.

Hab.—Yárkand to Bursi, May 28th to June 17th, 1874.

Genus—*CÆLOTES*, Bl.

30.—*CÆLOTES TEGENARIOIDES*, sp. n.

Immature male (almost adult): length $6\frac{1}{2}$ lines.

This spider is exceedingly like a *Tegenaria* in its general form and appearance.

The *cephalothorax* is round behind, but constricted laterally at the caput, and its margins are depressed; it is of a yellow-brown colour, and hairy, and has the normal indentations well marked.

The *eyes* are of moderate size, and not greatly different in that respect: they are placed in two transverse curved rows; the front row is the shorter and less curved, the convexity of the curves being directed backwards. The eyes of the hind-central pair are a little nearer to each other than each is to the hind-lateral eye on its side, being separated by rather less than two diameters; those of the fore-central pair are distinctly larger than those of the hind-central; they form a line slightly less, though of very nearly equal length, to that

formed by the hind-centrals, but the interval between them is smaller, being scarcely equal to a diameter; and each is separated from the fore-central eye on its side by an equal interval; the eyes of each lateral pair are placed obliquely on a tubercle, and are separated by a distinct though small interval. The four central eyes form as near as possible a square, and the height of the clypeus equals half that of the facial space.

The *legs* are moderate in length, tolerably strong, and of a yellow-brown colour; the femoral joints faintly annulated with a lighter hue.

The *palpi* are short, hairy, and like the legs in colour; the radial is rather longer and stronger than the cubital joint; the digital is of great size and tumidity, its fore extremity rather pinched in to a point. The palpal organs are not developed.

The *falces* are straight, strong, and massive, very prominent at their base in front, and project a little forwards; they are of a deep reddish-brown colour, and furnished with strong bristles.

The *maxillæ* are strong, distinctly curved over the labium, rounded at their extremity on the outer side, and obliquely truncated on the inner side; they are of a yellowish colour, strongly tinged with yellow-brown along the inner side.

The *labium* is of an oblong-oval form, slightly truncated at the apex, and of a yellow-brown colour; the apex is tipped with yellowish, and, with the maxillæ, is covered with bristly hairs.

The *sternum* is oval, pinched in to a short, sharpish point behind, and broadly truncated before; it is hairy, like the maxillæ and labium, and of a yellow-brown colour, paler along the middle.

The *abdomen* is large, hairy, considerably convex above, mostly so at the fore extremity, where it projects well over the base of the cephalothorax; it is thickly spotted, mottled, and marked with dull yellowish-white and black-brown markings and spots, presenting a faint indication of an irregular, elongate, posteriorly pointed, median dark marking, tinged with yellow-brown along the middle of the fore half, followed towards the spinners by some indistinct, broken, angular bars or chevrons. The spinners are not very long: those of the superior pair are three-jointed, the terminal joint being no longer than the one next to it; those of the inferior pair are shorter but stronger.

Hab.—Murree, June 11th to July 14th, 1874.

31.—*CÆLOTES SIMPLEX*, sp. n.

Adult female: length slightly over 4 lines.

This species is very nearly allied to *Cælotes tegenarioides*, but may be distinguished not only by its much smaller size, but by the absence of any trace of annulation on the femora of the legs and by the small size of the fore-central eyes, which are the smallest of the eight, and form a line distinctly shorter than that formed by those of the hind-central pair: the interval also between the eyes of each lateral pair is rather greater than in *C. tegenarioides*, and the height of the clypeus is less than half that of the facial space. On the abdomen, also, the pattern is more distinct, shewing the transverse angular bars on the hinder-half of the upper side more clearly; the spinners are rather longer, and the genital aperture is a small oval opening at the hinder part of a largish, convex, yellow-brown, somewhat roundish, corneous-looking patch.

Hab.—Murree, June 11th to July 14th, 1874.

Family—*THERIDIDES*.

Genus—*EPISINUS*, Walck.

32.—*EPISINUS ALGIRICUS*.

Episinus algiricus, Luc., Explor. en Algérie, Arachn. p. 269, pl. 17, fig. 11.

This spider is exceedingly closely allied to *Episinus truncatus*, Walck., and I have but little doubt that the examples contained in Dr. Stoliczka's collection are of the same species as that described by Lucas in his great work on the spiders of Algeria. Be this as it may, however, these examples are decidedly distinct from, though very closely allied to, European examples of *Episinus truncatus* found in England. Among other distinctions, may be specially noted, the generally more yellow-brown hue of the present spider, and the far less distinct, though generally similar, pattern on the cephalothorax and abdomen; also the absence of a short, but distinct, yellow, longitudinal line running backwards from between the hind-central pair of eyes to the occiput; this line is distinctly visible in all the numerous British examples before me, but no trace of it exists in the present spider. The legs are pale yellowish, only faintly annulated with brown; and some distinct white spots forming a horse-shoe (the open side in front) round the lower extremity of the abdomen close to the base of the spinners, are larger and more conspicuous, especially the foremost of them; the corners also of the upper side of the hinder extremity of the abdomen are more conically gibbous, and an unfailing specific difference is presented in the different form of the genital aperture; this is a small, simple, nearly round, dark-coloured opening in the present spider; while in *E. truncatus* it is by no means so simple, and covers a much larger oblong area. In the latter species, the under side of the abdomen is dark, with, almost always, three longitudinal parallel white lines; while in the present spider it is pale and almost uniformly covered with white cretaceous spots.

M. Eugene Simon, indeed (*Aran. nouv. ou peu connus du midi de l'Europe*, Mém. Liège, 1875), concludes *Episinus algiricus*, Luc., to be identical with *E. truncatus*, Walck.; but he gives no proof of this, beyond the fact that he has taken numbers of *E. truncatus* in Morocco, Spain, and Corsica. M. Lucas, however, appears to have had no doubt of the distinctness of the spider he describes as *E. algiricus*.

Hab.—Murree, June 11th to July 14th, 1877.

Genus—*THERIDION*, Walck.

33.—*THERIDION RIPARIUM*.

Theridion riparium, Blackw., Spid. Great Brit. and Irel., p. 182, pl. xii, fig. 115.

An adult female of this spider, which, although in very bad condition, appeared to be indistinguishable from European examples, was found in Dr. Stoliczka's collection.

Hab.—Murree, June 11th to July 14th, 1873.

34.—*THERIDION LEPIDUM*, sp. n.

Adult female: length very nearly 2 lines.

The whole of the fore part of this pretty spider is brownish-yellow. The *cephalothorax*

is of ordinary form; it has a brownish-black marginal line, or border, and a longitudinal, median, blackish-yellow-brown band extending from the eyes to the hinder margin (where it is narrower than at its commencement), and divided longitudinally by a fine paler line.

The *eyes* are small, and in the usual four pairs, occupying the whole width of the upper side of the fore part of the caput. Those of the hind-central pair are a little nearer to each other than each is to the hind-lateral eye on its side; those of the front row are equidistant from each other; and those of each lateral pair are contiguous to each other, and placed obliquely on a slight tubercle. The four central eyes form a square. The clypeus is impressed immediately below the fore-central eyes, but prominent towards its lower margin, and its height exceeds half that of the facial space.

The *legs* are tolerably long, and rather slender; they are furnished with hairs and numerous bristles; many of the latter, especially of those beneath the metatarsi and tarsi being of a spine-like character. Their relative length is 1, 4, 2, 3, those of the first pair considerably the longest.

The *palpi* are short and slender; the cubital joint is half the length of the radial, and the digital is nearly double the length of the radial. Their armature is like that of the legs.

The *falces* are rather weak, moderate in length, and straight, but a little projecting.

The *maxillæ* are long, of normal form, and their extremities are even with the extremities of the falces.

The *labium* is short, but of ordinary form.

The *sternum* is heart-shaped.

The *abdomen* is almost globular above, and projects over the base of the cephalothorax; it is of a dull luteous colour with a broad median dentated white band along the middle of the upper side, prolonged to the spinners in a narrow white stripe; the upper part of the sides have also an irregular longitudinal white band connected with the median band by three oblique narrow white stripes or lines; and close to the base of each of these oblique lines, *i.e.*, where they join the lateral white bands, is a distinct black spot. There is also another black spot at the hinder termination of the lateral band, with another on each side immediately and close above the base of the spinners, and one underneath immediately in front of the spinners. All these black spots, which are very distinct and characteristic, form two longitudinal lines converging to the spot under the spinners, which are also surrounded by some white spots; the lower part of the sides, and a broad longitudinal band on the under side are more or less mottled with small white spots.

The *male* resembles the female in colours and markings, but its abdomen is far less convex above, and the first pair of legs are much longer; the fore-extremities also of the femora and tibiæ of those of the first and second pairs are of a reddish-yellow-brown.

The *palpi* are short; the humeral joint is enlarged and tumid towards its hinder extremity, and the radial is much, and broadly, produced at its outer extremity, where it is fringed with a single row of strong bristles; the digital joints are of moderate size, oval, and bristly with their convex sides turned towards each other. The palpal organs (which are thus directed outwards) are rather complex, but possess no very markedly prominent processes.

Hab.—Sind Valley, August 5th to 13th, 1874.

This spider is nearly allied to *T. nervosum* (Walck.), which it resembles in the general character of its markings, though its colours are quite different.

35 —THERIDION SUBITUM, sp. n.

Adult female : length 2 lines.

The whole of the fore part of this spider is of a dull orange-yellow colour.

The *cephalothorax* is of ordinary form, though rather shorter in proportion to its length than in some other species of the genus ; its lateral margins are slightly suffused with whitish.

The *eyes* are of moderate size, in the usual four pairs, and tolerably closely grouped together ; those of the hinder row are equidistant from each other, and those of the fore-central pair are a little further from each other than each is from the fore-lateral eye on its side ; the four central eyes form nearly a square whose fore side is rather shorter than the hinder one ; the height of the clypeus exceeds half that of the facial space.

The *legs* are slender and not very long ; they are a good deal denuded of armature, but are apparently furnished with hairs and bristles, many of the latter being of a slender, spine-like character. A small portion at the extremity of the tibiæ of the first and fourth pairs is red-brown.

The *palpi* are short and slender.

The *falces* are weak, slender, straight, and slightly projecting.

The *labium* and *maxillæ* are of normal form, and their colour is yellow-brown.

The *sternum* is nearly triangular.

The *abdomen* is of large size, very convex above, and projects considerably over the base of the cephalothorax ; the hinder part also projects over the spinners, and the upper surface is broad, the fore part presenting, on either side, the appearance of a kind of prominent shoulder ; it is of a yellow-brown colour, completely covered above and on the sides with irregular, but closely-fitted, yellowish-white spots, the interstices of which have the appearance of fine yellowish-brown reticulations. Along the middle of the forepart is a dull brown narrow band with a blunt prominent point continued into a fine irregular line : there are also several dull-brown lines running backwards from its hinder extremity, which is rather enlarged ; the spinners are short, compact, of a yellow-brown colour, and surrounded by a dark-brown band. The colour of the genital aperture, and of the orifice of the breathing organs, is red-brown.

Hab.—Murree, June 11th to July 14th, 1874.

36.—THERIDION CONFUSUM, sp. n.

Adult female : length $1\frac{3}{4}$ lines.

This spider is very nearly allied to *Theridion denticulatum* (Walck.), which it resembles in size and form, but is, I think, quite distinct. It is altogether of a browner hue, and, although the markings on the abdomen are very similar, there is an important difference in the median, longitudinal, dentated band, the hinder part of which is, in the present spider, merely a narrow, undentate, pale stripe.

Hab.—Murree, June 11th to July 14th, 1874.

37.—THERIDION EXPALLIDATUM, sp. n.

Adult female : length $1\frac{3}{4}$ lines.

The *cephalothorax* of this spider is of ordinary form ; its colour is a pale brownish.

yellow margined with brown, and with a longitudinal median band of a rusty reddish-brown hue, as broad as the hinder row of eyes, where it begins, but thence tapers gradually to the hinder extremity of the cephalothorax.

The *eyes* are in the ordinary position; those of the hind-central pair are nearer together than each is to the hind-lateral eye on its side, while those of the fore-central pair are further from each other than each is from the fore-lateral on its side. The four central eyes form a square, and those of each lateral pair are seated contiguously and obliquely on a small tubercle; the clypeus is strongly and sharply impressed immediately below the eyes, but prominent at its lower margin, and its height exceeds half that of the facial space.

The *legs* are rather short, slender, of a pale, dull yellowish colour, with a slight black-brown marking beneath the extremities of each joint, and are furnished with hairs and somewhat spine-like bristles.

The *palpi* are slender, short, and similar to the legs in colour and armature.

The *falces* are not very long nor strong, but a little projecting; they are of a dull yellowish colour suffused with brown.

The *maxillæ* and *labium* are of normal form, and similar in colour to the legs; the labium, however, is suffused with brown.

The *sternum* is triangular, and its colour is like that of the legs, with a marginal blackish line.

The *abdomen* is large and globular, and projects considerably over the base of the cephalothorax; it is of an almost uniform chalky-white colour, with the faintest possible traces of a longitudinal, median, denticulate band on the upper side, having some oblique lateral lines issuing from it; this pattern is rendered just visible by being of a rather clearer white colour than the rest; the median longitudinal line of the upper side has also a dull brownish, broken line, from which finer, oblique, lateral lines issue here and there; the spinners are surrounded by a dull brownish circular band on which are several rather conspicuous white spots. The genital aperture is of a transverse oval form, edged with dark brown, and placed at the hinder part of a roundish prominence.

This spider is evidently nearly allied to *Theridion simile*, C. L. Koch.

Hab.—Murree to Sind Valley, July 14th to August 5th, 1873.

38.—THERIDION TUBERCULATUM.

Theridion tuberculatum, Kronenberg, Reise in Turkestan von Alexis Fedtschenko, Moscov, 1875, p. 9, pl. v., fig. 40.

This little white *Theridion* may readily be distinguished from *T. expallidatum* by a small sub-conical, somewhat tubercular eminence on the hinder part of the upper side of the abdomen. The cephalothorax has a narrow longitudinal median brown stripe of which the anterior portion is bifid; and the abdomen, which is of a dull yellowish-brown colour thickly covered with cretaceous-white confluent spots, has an irregular, somewhat sub-dentate, longitudinal, median, dull brownish band, emitting backwards a few fine oblique lines of the same colour. The whole of the fore part of this spider is of a dull pale yellow hue; the legs are long, slender, and furnished with hairs, bristles, and slender bristle-like spines.

Hab.—Murree, June 11th to July 14th, 1873.

39.—THERIDION INCERTUM, sp. n.

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

The *cephalothorax* is short-oval, slightly constricted laterally at the caput, which is broad

and of a somewhat truncated appearance; in the middle longitudinal line, the caput has a broadish ridge-like character, which runs far back to a deep transverse indentation at the thoracic junction. Its colour is a rather rich yellow-brown, except the hinder part of the caput, which is paler, and its surface is granulose and covered with bristly hairs.

The *eyes* are of tolerable size in two nearly equal transverse rows occupying the whole width of the fore part of the upper side of the caput. The hinder row is, as nearly as possible, straight, the front row curved. The eyes of the hind-central pair are considerably nearer together than each is to the hind-lateral eye on its side; the interval between the former being equal to a diameter, and that between the latter, to nearly two diameters. The eyes of the fore-central pair are seated on tubercles, and rather prominent, forming a line rather less than that formed by the hind-centrals: the intervals between the eyes of the front row appear to be as nearly as possible equal. The eyes of each lateral pair are seated, slightly obliquely, on a strongish tubercle, and are contiguous to each other. The fore-central eyes form, as nearly as can be, a square, and the height of the clypeus (which is impressed below the eyes and prominent at its lower side) is more than half that of the facial space.

The *legs* are moderately long, excepting those of the first pair, which are much the longest: their relative length is 1, 2, 4, 3. The first pair are strong, especially the femora, and, with those of the second pair, are of an orange-yellow colour, the fore part of the femora and tibiae being of a deeper and richer orange than the rest; all are furnished with hairs and bristles, those of the first pair having numerous spine-like bristles, and a single longitudinal row of short, strongish, somewhat denticular spines along the under side; those of the third and fourth pairs are of a paler hue than the others.

The *palpi* are short, similar to the legs in colour, and (except the digital joint, which is large, reddish yellow-brown, and with its fore extremity considerably produced) slender; the cubital joint is very short; the radial also is short, but spreads out at its outer extremity into a very large and apparently bifid production: the *palpal* organs are well developed and prominent but tolerably simple in structure; with a slender curved filiform spine, and a small, straight, corneous process at their fore extremity; they are directed outwards, the convex sides of the digital joints being directed inwards.

The *falces* are strong, of moderate length, and similar to the cephalothorax in colour.

The *maxillæ* are tolerably long and strong, much curved, and almost meeting over the *labium*, which is short and with a somewhat pointed apex. The colour of these parts is like that of the falces.

The *sternum* is heart-shaped, broad, and truncate at its fore extremity; it is of a rather orange-yellow colour, and its surface is granulose.

The *abdomen* is short, considerably convex above, and projects well over the base of the cephalothorax; looked at from above, it is of a somewhat heart-shape. It is of a yellow-brown colour, a good deal marked and spotted with white on the upper side; these markings do not appear to follow any very distinct pattern, but a more or less broken marginal band, most complete on each side of the fore part, and least traceable behind, may be seen. Four round red-brown impressed spots form almost a square a little in front of the middle, and across this part most of the white spots occur.

This is in some respects rather an aberrant form of *Theridion*, but it is most nearly allied to *T. pulchellum*, Walck.

Hab.—Murree, 11th to July 14th, 1873.

Genus—*STEATODA*, Thor.40.—*STEATODA NIGROCINCTA*, sp. n.

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

The *cephalothorax* is of a short-oval form: the caput is slightly constricted on the sides and the normal indentations are well marked, that at the junction of the caput and thoracic segments being very strong, giving rather a crushed appearance to this part, and with a transverse direction. The colour is yellow-brown, darker in the direction of the indentations, and in a wedge-shaped form behind the eyes, but rather lighter towards the lateral margins. The surface is glossy and (apparently) devoid of hairs, but covered with minute red-brown granulosities.

The *eyes* are of moderate size, and do not differ much in this respect: they are in the ordinary position; those of the hind-central pair are rather nearer together than each is to the hind-lateral eye on its side; those of the front row, which is the shortest, appear to be divided by as nearly as possible equal intervals; those of each lateral pair are seated a little obliquely, and contiguously, on a slight tubercle. The four central eyes form a square.

The *legs* are moderate in length and strength; their relative length is 1, 4, 2, 3, but the difference between those of the first and fourth pairs is not much. They are of a rather orange yellow-brown colour, deepening in hue towards the extremities, and are furnished with hairs and bristles which spring from minute tubercular red-brown granulosities.

The *palpi* are slender, and similar to the legs in colour.

The *falces* are neither very long nor strong; they are straight, perpendicular, similar to the cephalothorax in colour, and granulose.

The *maxilla* and *labium* are of normal form, and rather lighter in colour than the falces.

The *sternum* is somewhat heart-shaped, broadly truncated, in a rather hollowed line, at its fore-extremity, and of a pale orange-yellow colour.

The *abdomen* is large, of a short-oval form, very convex above, and projects considerably over the base of the cephalothorax; it is of a dull luteous-brown colour, sprinkled with white cretaceous spots, which are principally gathered into a longitudinal median-line and a somewhat dentated line on each side of the upper part; the median white line has some black spots and markings on each side of it, those on the hinder half forming a series of broken transverse angular bars. There are also black markings on each side of the lateral white borders; that below each is broad, and continued quite round in front, where it meets the other from the opposite side; the upper side of the abdomen has also some other black spots and points scattered over it; the middle of the under side has a largish square area of white cretaceous spots, bearing two strong parallel patches of deep red-brown on its fore part. The spinners are short, compact, and of a pale-yellowish colour.

The *male* resembles the female in general characters and colours; it is, however, smaller and paler, and the legs of the first pair are longer; the palpi are like the legs in colour; they are long and slender, the radial joint is double the length of the cubital, which is of a bent form, and the former is somewhat clavate, and has its extremity on the outer side broadly produced, but in close contact with the digital joint; the digital joint is of moderate size, of oval form, with its fore extremity pinched in to a point; the palpal organs are well developed and rather complex, with some whitish prominent membrane just above their fore extremity.

Hab.—Murree, June 11th to July 14th, 1873; and route from Yárkand to Bursi, May 28th to June 17th, 1874.

41.—*STEATODA SORDIDATA*, sp. n.

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

In form and structure this spider resembles *Steatoda nigrocincta*. The eyes, however, are smaller and more closely grouped, and the line formed by two fore-centrals is longer than that formed by the hind-central pair. The whole of the fore part is of a dull dark-brown colour, tinged with yellow. The abdomen is similar, but without the yellowish tinge; a broad longitudinal median band, as well as a narrower, lateral, dentated one on each side, meeting round the fore extremity, are formed by white cretaceous spots; and a similar line longitudinally bisects the under side; four small impressed black spots form a square (whose fore side is shortest) on the fore half of the upper side.

Hab.—Hills between Sirikol and Aktalla, May 8th to 13th, 1874.

Genus—*DREPANODUS*, Menge.

42.—*DREPANODUS MANDIBULARIS*.

Theridion mandibulare, Lucas, Explor. en Algérie, p. 260, pl. 17, fig. 1.

Pachygnatha mandibularis, Cambr., Spid. Pal. and Syr., P. Z. S., 1872, p. 294.

Steatoda mandibularis, Sim., Bull. Soc. Ent. Fr., 1873, p. 222.

Epeira diversa, Bl., Ann. & Mag. Nat. Hist., October 1859.

Hab.—Examples of the female of this puzzling spider were found in Dr. Stoliczka's collection, taken *en route* from Yárkand to Bursi, May 28th to June 17th, 1874.

The difficulty of assigning to it its correct systematic place is very evident from the synonyms above quoted. Mons. Eugène Simon has, however, lately suggested to me that it is nearly allied to *Drepanodus obscurus*, Menge, and, entirely agreeing with this, I have placed it here in that genus.

Genus—*PHYCUS*, Cambr.

The short broad form and very laterigrade appearance of the typical example of this genus led to the conjecture that it belonged to the family *Thomisides* (*vide* O. P. Cambridge, 'On some new Genera and Species of Araniedea,' in Proc. Zool. Soc., 1870, p. 742, pl. xlv, fig. 9. Subsequent examination leads me to conclude that its proper place is in the family *Theridiides* (not far from the genus *Euryopis* (Thor.), but certainly not among the *Orbitulariæ*, as conjectured by Dr. T. Thorell (Syn. Eur. Spid., p. 600).

43.—*PHYCUS SAGITTATUS*, sp. n.

Adult female: length 2 lines.

The *cephalothorax* is short, broad behind, and narrowing gradually forwards, but without much lateral constriction at the caput: this portion is large, bluff in front, considerably elevated, rising gradually but quickly from the thorax. The clypeus rather exceeds in height half that of the facial space: it is round on the lower margin, and full and rather prominent, projecting gradually from just beneath the front row of eyes. The colour of the cephalothorax is a deep yellowish-brown, and behind each hind-lateral eye is a strongish, curved,

spine-like bristle directed forwards; other bristles evidently belong to this part, but they had been rubbed off.

The *eyes* are of tolerable but nearly uniform size, and form a large, transverse, crescent-shaped area on the front and sides of the upper part of the caput; the two rows have the convexity of their curve directed forwards, the front row being much the more strongly curved, and its eyes rather larger than those of the hinder row. The eyes of the hinder row (which is the longer) are very nearly, if not quite, equally separated, the interval rather exceeding two diameters of one of the central pair; the interval between the eyes of the fore-central pair, which is of a black colour, is double that between each and the fore-lateral eye on its side, and the line formed by them is very little longer than that formed by those of the hind-central pair. The four central eyes form a rectangle, whose transverse is greater than its longitudinal diameter; the eyes of each lateral pair are seated obliquely, but not quite contiguously, on a large, black, and slightly tubercular spot.

The *legs* are short, tolerably strong and tapering; those of the fourth pair are the longest; the rest differ very little in length, perhaps that of the first pair a little exceeds that of the second, the third pair being slightly the shortest. They are furnished with hairs, and a double, divergent row of longish fine spines beneath the tibiæ, tarsi, and metatarsi; each tarsus ends with three curved claws, which spring from a small prolongation (apparently a distinct articulation) of the tarsus. The colour of the legs is a deep brown, but paler along the upper sides, the hinder extremities of the femora being of a pale-yellowish hue.

The *palpi* are short but tolerably strong; they are of a dull-yellowish hue, suffused with brown beneath and on the sides; the digital joint ends with a curved, and apparently pectinated, claw.

The *falces* are short, straight, perpendicular, moderately strong, and the fang is slender; their length does not exceed the height of the clypeus, and their colour is yellowish-brown.

The *maxillæ* are small, short, and greatly inclined to the labium, over which their extremities almost meet.

The *labium* is very short, and somewhat pointed at its apex; its colour, with that of the maxillæ, is a dull pale-yellowish, suffused, over all except their extremities, with brown.

The *sternum* is heart-shaped, and similar to the cephalothorax in colour.

The *abdomen* is of great size, heart-shaped, very convex above, and projects greatly over the cephalothorax, which it (when looked at from behind) almost entirely conceals. Its colour is a dull dark-brown, the upper side being densely covered with small, silvery, slightly yellowish-white metallic spots; leaving a large, transverse, somewhat oblong, brown area at the fore extremity, and a large arrow-headed brown marking in the middle: the point of this marking is directed backwards, going off into a fine yellow-brown line nearly to the spinners; and from the middle of its fore extremity a short brown stripe runs forward into the oblong patch of the same colour, and is crossed, close to it at right angles, by another brown line, which connects the foremost pair of four small, deep-brown, impressed spots; the hinder pair of these spots are placed just on the fore margin of the arrow-headed marking, which has, on its lateral margin, some other deep-brown spots and blotches, with a few small, silvery spots on its fore part. The under side has two very distinct transverse lines of silvery spots; and on either side of them are some pale, parallel, and slightly oblique streaks and lines of similarly coloured spots; the spinners are short, those of the inferior pair being considerably the stouter and rather the longer.

Hab.—Murree to Sind Valley, July 14th to August 5th, 1873.

Genus—*ERIGONE*, Sav.44.—*ERIGONE ATRA*.*Neriene atra*, Blackw., Lond. and Edinbr. Phil. Mag. 3 ser. iii, p. 195.——— *longepalpis*, Blackw., Spid. Great Brit. and Irel. p. 274, pl. xix, fig. 188.

Hab.—An example of the male, identical with British and other European specimens, was contained among the spiders found on the route from Yárkand to Bursi, May 28th to June 17th, 1874.

45.—*ERIGONE DENTIPALPIS*.*Erigone dentipalpis*, Wid.-Westr., Aran. Suec. p. 199.

Although only a portion of this spider was found in the collection, I feel no doubt of its specific identity with the *E. dentipalpis* (Westr.) of Europe.

Hab.—Sind Valley, August 5th to 13th, 1873.

Genus—*PACHYGNATHA*, Sund.46.—*PACHYGNATHA CLERCKII*.*Pachygnatha clerckii*, Sund.-Westr., Aran. Suec. p. 144.

An adult male of this species, differing in no respect from European examples, was found in the collection.

Hab.—Káshghar, December 1873.

Genus—*LINYPHIA*.47.—*LINYPHIA CONSANGUINEA*, sp. n.

Adult male: length $2\frac{1}{4}$ lines. Adult female: $2\frac{3}{4}$ lines.

This spider is, in size, colour, and markings, almost exactly like the well-known European form *Linyphia peltata* (Sund.); one description would, in fact, suit both these species. The present, however, may be distinguished by several good specific characters.

In the male, the *falces* are shorter and less divergent, but stronger and much more prominent in front when looked at in profile; in which position also the extremities are directed distinctly backwards; they are likewise granulose, furnished with short spine-like bristles, and armed with a short, strong, pointed, deep red-brown tooth on the inner side towards the fore extremity.

The *palpi* have the cubital joint very short, with a strong, tapering, spine-like bristle directed forwards from its fore extremity on the upper side; the radial joint is double the length of the cubital, and enlarges gradually to the fore extremity, where, on the upper side, is a spine-like bristle like that on the cubital joint; the digital joint is not very large, and the palpal organs are complex, with corneous processes and spines, somewhat like those of *L. peltata*, but bolder; and from their base, on the outer side, issues a slender, longish, pale-coloured, rather prominent spiny process, whose extremity is sharp-pointed and rather shortly

curved; this process by its size and shape distinguishes the males of the two species at a glance.

The *female* may be distinguished by the abdomen in the present species (when looked at in profile) having a higher elevation about the middle, the general curve of that of *L. peltata* being here of a somewhat humped nature; the form of the genital aperture also differs a little: in *L. peltata* it is of a simple, transverse, oval form; in the present its form is somewhat bluntly sub-triangular.

Hab.—Murree, June 11th to July 14th, and Murree to Sind Valley, July 14th to August 5th, 1873.

48.—*LINYPHIA ALBIPUNCTATA*, sp. n.

Adult female: length rather over 2 lines.

This spider is nearly allied to *Linyphia leprosa*, Ohl., and *L. minuta*, Bl., to which it bears considerable resemblance both in size, form, and colours. The whole of the forepart is yellow-brown, the sternum and falces being the darkest: the upper part of the caput also, with the normal indentations, is rather darker than the rest of the cephalothorax; the legs are distinctly annulated with dark brown, and furnished with hairs, bristles, and spines; the palpi have a similar armature, but are not so distinctly annulated.

The *eyes* are in the ordinary position and seated on tubercular black spots, but the ocular area is more prominent than usual, and has the appearance of a longish, oblong, tubercular platform; those of the posterior row appear to be equally divided from each other, the interval being less than a diameter; the fore-centrals are the smallest of the eight, and are separated by about half a diameter, each being divided from the fore-lateral eye on its side by rather less than the diameter of the latter; those of each lateral pair are placed rather obliquely, but not quite contiguously. The height of the clypeus, which is very projecting, equals half that of the facial space; the four central eyes form a rectangle whose longitudinal is greater than its widest transverse diameter, and its posterior side longer than its anterior one.

The *falces* are moderately long and strong, very slightly divergent, nearly perpendicular; their profile is curved, and each has three tolerably strong, sharp teeth at the extremity on the inner side.

The *sternum* has its surface slightly tuberculose.

The *abdomen* is very convex above, and projects well over the base of the cephalothorax; it is of a rather dark yellow-brown colour, marked with deeper brown, and thickly and minutely specked with white on the upper part and sides; the only traceable pattern is a longitudinal dark-brown line along the middle of the fore part of the upper side, followed to the spinners by a series of transverse angular lines, formed by the more regular disposition of some of the white spots; probably a series of specimens would show transverse angular brown lines, with perhaps an enlargement like a spot or blotch at each of their extremities; on the sides also there is a trace of a similar white horizontal curved line meeting the one on the opposite side a little above the spinners; and above it is a horizontal brown patch. These markings are all very similar to those of *Linyphia leprosa*, though less distinct. The genital aperture in the two species, and the process connected with it, are, however, totally dissimilar; in the present spider, instead of being exceedingly prominent, and rather complex, it is only slightly prominent and very simple in its structure.

Hab —Murree, June 11th to July 14th, 1873.

49.—LINYPHIA STRAMINEA, sp. n.

Adult female: length a little over 1 line.

The whole of the fore part of this small spider is of a pale straw-yellow colour, and in its form and general structure it is very like *Linyphia ericæa*, Bl.

The *eyes* are on strong, black, tubercular spots, and rather closely grouped together in two slightly curved rows, of which the hinder one is a very little longer than the front; the two hind-central eyes are slightly further from each other than each is from the hind-lateral eye on its side; and the fore-central eyes are the smallest of the eight, near together but not contiguous to each other; those of each lateral pair are placed slightly obliquely, and touching each other; the four centrals form a square whose fore side is considerably shorter than the hinder one.

The *legs* are very slender and rather long, furnished with hairs and a few fine spines.

The *palpi* are short, slender, and similar in colour and armature to the legs.

The *falces* are tolerably long, not very strong, straight and perpendicular.

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

The *abdomen* is very convex above, and projects considerably over the base of the cephalothorax: it is of a dull straw-colour, speckled thinly with small, white, cretaceous-looking spots. The form of the genital aperture is very simple indeed, and has a very slight, and scarcely at all prominent, process connected with it.

Hab.—Murree, June 11th to July 14th, 1873.

50.—LINYPHIA PERAMPLA, sp. n.

Female, scarcely adult: length rather over 3 lines.

This fine species is very nearly allied to *Linyphia collina*, L. Koch, found in the French Jura mountains; but it may be, I think, distinguished by a total absence of the small white spots dispersed over the abdomen of that species, as well as by a stronger and bolder pattern.

The *cephalothorax* is of ordinary form; and the normal indentations are strongly marked; it is of a light brownish-yellow colour, the caput dark yellow-brown, and the thoracic portion has a broadish brown marginal border.

The *eyes* are rather small, but in the usual position; those of the hind-central pair are rather nearer to each other than each is to the hind-lateral on its side; the four central eyes form very nearly a square whose anterior is shorter than its posterior side; the eyes of each lateral pair are placed obliquely, and contiguously, on a slight tubercle. The height of the clypeus is equal to half that of the facial space.

The *legs* are rather long, slender, and their relative length is 1, 2, 4, 3; they are of a yellow-brown colour, the tibiæ and femora annulated with dark brown, the former indistinctly, the latter distinctly; they are furnished with hairs, bristles, and a few not very long, slender spines.

The *palpi* are short, slender, of a pale brownish-yellow colour, furnished with an armature similar to that of the legs.

The *falces* are moderately long and strong, straight, perpendicular: the basal portion in front, dark brown; the rest, yellow-brown, with a reddish tinge near the fang; and there are three teeth on the inner side near the fore extremity.

The *maxillæ* and *labium* are of normal form, and of a brownish-yellow colour, the latter being the darker.

The *sternum* is heart-shaped, broadly truncated at its fore extremity; its colour is yellow-brown, suffused with deeper brown, furnished with long bristly hairs, and with a kind of oval gibbosity at its hinder extremity.

The *abdomen* is large and very convex above, projecting considerably over the cephalothorax, and clothed with short grey hairs; it is of a pale, dull brownish-yellow hue, marked along the middle of the upper side with a series of strong, well-defined, blackish-brown angular bars of a W form, the extremities of these lines uniting with oblique lateral lines of black-brown spots and markings.

Hab.—Sind Valley, August 5th to 13th, 1873.

51.—LINYPHIA PUSILLA.

Linyphia pusilla, Sund., Sv. Spindl. Beskr. Vet.-Akad. Handl. f. 1829, p. 214.

Hab.—Two females of this spider contained in the portion of the collection made at Yárkand, May 21st to 27th, 1874, and on the route thence to Bursi, May 28th to June 17th, 1874, differ in no respect from European examples of the same species.

Family—EPEIRIDES.

Genus—*META*, C. L. Koch.

52.—META MIXTA, sp. n.

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

This pretty spider is nearly allied to *Meta (Tetragnatha) decorata*, Bl., but it is smaller and the abdomen, although its hinder extremity projects a little over the spinners, is not drawn out behind into anything of a caudal form; the fore extremity also is smooth and rounded at the shoulders, instead of being somewhat humped or gibbous on those parts; the genital aperture also differs in its form.

The *cephalothorax*, *legs*, and *palpi* are pale yellow; the *falces*, *maxillæ*, and *labium* rather suffused with brown, or reddish-brown; and the *sternum* dark reddish-brown; the extremities of the tibiæ of the legs are dull reddish-brown. The *abdomen* is of a cylindric oval form, rather narrower behind than before; the upper part, and a portion of the sides, are metallic and silvery in colour, and marked, longitudinally, with five dull brownish lines or stripes. A median stripe, and another on each side of it, not reaching so far forwards as the median one, meet at the hinder extremity; these three longitudinal stripes are connected on either side by three oblique lines of the same colour, issuing from the central stripe and running obliquely backwards into the lateral one; two of them are rather near together, not far behind the middle of the abdomen; the third is much nearer the fore part; and, quite at the fore extremity, is a transverse, dull-brown, slightly curved line; the remainder of the sides and the under side are dull yellowish-brown; and on each side of the under part is a longitudinal, slightly bent, silvery stripe from the spiracular openings to the spinners, followed by a spot of the same kind close to the outer side of the inferior pair of spinners;

these two sub-abdominal stripes are, in *Meta decorata*, Bl., replaced by the whole of that part being silvery, whereas the intermediate space between the silvery stripes, in the present spider, has only a few silvery specks on its fore half. The space between the spinners and the upper side has also some silvery spots upon it.

This spider is also nearly allied to *Meta quinquelineata*, Keys (from Bogota, S. Amer.), but is, I think, certainly of a distinct species. It is also distinct from another nearly allied (and undescribed) species received from Bombay from Major Julian Hobson.

Hab.—Murree, June 11th to July 14th, 1877.

Genus—*TETRAGNATHA*, Walck.

53.—*TETRAGNATHA EXTENSA*.

Tetragnatha extensa, Linn., Syst. Nat. Ed. 10, i, p. 621.

Several specimens, which I believe to be of this species, were contained in the collection.

Hab.—Káshghar, December 1873; Sind Valley, August 5th to 13th, 1873; Yárkand, May 21st to 27th, 1874; and route from Yárkand to Bursi, May 28th to June 17th, 1874.

Genus—*EPĚIRA*, Walck.

54.—*EPĚIRA TARTARICA*.

EpĚira tartarica, Kronenberg, Reise in Turkestan v. Alexis Fedtschenko, Moscow, 1875, p. 2, pl. 1, fig. 1.

Adult and immature females were contained in the collection.

Hab.—Neighbourhood of Leh, August and September 1873.

55.—*EPĚIRA BIGIBBOSA*, sp. n.

Immature female: rather over 1 line in length.

Although it is very young, I think this spider is of a different species from several with a protuberance or gibbosity on each side of the fore extremity of the abdomen already described by different authors.

The whole of the fore part is of a dull yellowish hue, except the sternum, which is yellow-brown; the *cephalothorax* is suffused with yellow-brown in the indentations by which the union of the caput and thorax is indicated, and has a somewhat triangular patch of a cream-white colour at the occiput.

The *legs* are rather short and moderately strong; their relative length is 1, 2, 4, 3, and they are furnished with hairs and bristles only.

The *eyes* are on slight dark tubercles; those of the hind-central pair are the largest of the eight, and considerably larger than the rest, and are divided from each other by a diameter's interval; the space which divides each from the hind-lateral on its side being double, if not more, of that diameter: those of the fore-central pair are less than half the size of the hind-centrals; they are separated from each other by two diameters' interval, but yet form a line shorter than that formed by the hind-centrals. The four central eyes form a square whose foremost side is rather shorter than the rest; those of each lateral pair are placed very

obliquely and contiguously. When looked at from in front, the eye area is in the form of a triangle whose apex (at the hind-central pair) is truncated, and whose base is formed by the lateral and fore-central pairs, which, from this point of view, are in a perfectly straight line. The height of the clypeus is about one-third that of the facial space.

The *abdomen* is white; its fore part, which is broad and has a strongish, pointed, conical gibbosity on the upper side at each fore corner, projects considerably over the base of the cephalothorax; these gibbosities are tipped with dark brown. The greater part of the hinder half is occupied by a very broad dentated brown band which narrows to the spinners, and is itself mottled with white; the under side is dull brownish, with a curved white stripe on each side of the hinder part.

No doubt some variation in colours, and perhaps in markings, will be found in the adult form; but the above details will, I think, be found sufficient for the determination of the species, whether in the adult or immature state.

Hab.—Murree, June 11th to July 14th, 1873.

56.—*EPËIRA PELLAX*, sp. n.

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

This spider is allied to *Epëira bigibbosa*, but may easily be distinguished by a difference in the relative size and position of the eyes, as well as by its spinous and annulated legs.

The *cephalothorax* is dull yellow-brownish on the sides, and the caput has also one or two, indistinctly defined, yellow-brown markings, and its surface is clothed with a coarse greyish-sandy pubescence.

The *eyes* are rather small, of a dull, amber yellowish-brown colour, and do not differ greatly in size; those of the hind-central pair are the largest, and, with the fore-centrals, which appear to be next in size (though not very much smaller), form very nearly a square; the fore-side of the square being, if anything, slightly longer than the hinder one: the interval between the hind-centrals is equal to a diameter, but that between each of them and the hind-lateral eye on its side is equal to at least four diameters of the hind-central eye.

The *legs* are rather short and tolerably strong; their relative length appears to be 1, 4, 2, 3, though the difference between those of the first, second, and fourth pairs is slight; their colour is yellow, clouded, and irregularly annulated, with dark yellow-brown; they are also furnished with hairs, bristles, and short spines.

The *falces* are short and moderately strong, a little prominent near their base in front; they are similar in colour to the cephalothorax, suffused a little with brownish on their outer sides.

The *maxilla* and *labium* are normal in form, and of a pale-yellowish colour, suffused with brownish towards their bases.

The *sternum* is heart-shaped; the anterior side truncated in a hollow line.

The *abdomen* is short, and broad in front, with a short, roundish, conical protuberance on each side of the forepart; from a little way behind each of these protuberances, a sinuous, or sub-dentate, dark-brown line, edged with whitish on its outer side, runs backwards towards the spinners; these lines do not reach the spinners, nor do they meet each other, since they run nearly parallel during the latter part of their length; the space included by these lines is mottled with white, and contains some dull-brownish, curvi-angular, transverse lines, bisected through their angles (which are directed forwards) by a longitudinal median line of the same

hue; the sides are alternately slashed, or broadly and obliquely striped, with white and yellowish-brown. The under side is white, with a large, central, somewhat triangular, dull-brownish area in the middle. The base of this triangle is towards the forepart, where it is joined by a pedicular patch of the same colour, to the hinder margin of the genital opening. This aperture has connected with it a long, strong, very prominent epigynæ, divided into two parts, a basal part whitish, tumid, and membranous in appearance, and a terminal portion blackish-brown, corneous, curved, tapering, directed strongly forwards, and clothed with hairs on its fore, or convex, side; its hinder, or concave, side has a narrow, longitudinal slit or duct.

The *spinners* are normal, and surrounded, on the sides and behind, with a horseshoe-shaped line of six white spots with dull-brownish intervals.

Hab.—Murree to Sind Valley, July 14th to August 5th, 1873.

57.—*EPĒIRA GURDA*, sp. n.

A number of immature specimens, both male and female, of an *Epĕira* which I believe to be of an undescribed species, were contained in the collection, though, from their immaturity and the apparently faded state of their colouring, I do not venture to describe them in detail. They are very nearly allied to *Epĕira cornuta*, Clerck, the pattern on the abdomen being very similar to that spider. The colours, however, are much duller, and the markings far less distinct, and the *legs* are of a uniform dull-yellowish hue. One character alone will serve to distinguish it at once from *E. cornuta*; the eyes of the hind-central pair form a line which is very nearly—indeed, as long—as that formed by those of the fore-central pair; but which in *E. cornuta* is distinctly (and indeed considerably) shorter.

Hab.—Murree, June 11th to July 14th, 1873.

58.—*EPĒIRA HARUSPEX*, sp. n.

Adult female: length $1\frac{3}{4}$ lines.

In its general form this spider is much like *Epĕira pella*; it is, however, much smaller, and differs in many material particulars; it is also allied nearly to *E. agalena*, Walck.

The whole of the fore part, excepting the sternum, which is darker, and the normal indentations of the cephalothorax, which are dusky brown, is of a dull yellowish-brown colour.

The *eyes* are small; the four centrals form a square, but those of the hind-central pair are considerably larger than the front-centrals and are separated from each other by a diameter's distance, each being also divided from the hind-lateral on its side by more than double that which separates them from each other.

The *legs* are neither very long nor strong; their relative length is 1, 2, 4, 3, and the tibiæ are faintly annulated with reddish yellow-brown; their armature had been all rubbed off, but apparently it had consisted only of hairs and bristles.

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

The *maxillæ* and *labium* are of normal form, pale yellowish towards their extremities, but dark brown on the basal part.

The *abdomen* is broad in front, where it is slightly prominent (though scarcely gibbose) at the fore-corners, and the middle of the fore-margin is also blunt-angularly prominent; the upper side has almost its whole area enclosed by two longitudinal brown lines (edged outwardly with white), which run from the fore-corners obliquely backwards, and converge towards each other to the spinners; the first half of these lines is sub-angular. Along the length of the area thus enclosed, a large, but not very clearly defined, somewhat cruciform or dagger-shaped, whitish marking runs with its sharp point backwards, and is bisected longitudinally by a dull, pale-brownish line, from which several oblique lines branch off on each side. The rest of the area is dull brown, deepening to reddish brown at the hinder extremity; the sides are dull brown, mottled thickly with small white spots; the under side is also brown margined with a distinct line of white spots, which does not, however, enclose the fore extremity, as each end of the line terminates close behind the spiracular opening; a little way from the spinners, on each side, there are two white spots in a longitudinal line. The process connected with the genital aperture is prominent, and of characteristic form: it consists of two portions—the basal, which is short, broad, dark blackish-brown, and corneous; and a rather long, twisted pale epigyne, directed backwards: only a figure, however, can give any correct idea of the form and structure of this process.

Hab.—Yárkand, May 21st to 27th, 1874.

59.—*EPĒIRA PĒNULATA*, sp. n.

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

This spider is allied to *Epĕira cornuta*, Clerck, but is much smaller, and (in the only example examined at least) wants the characteristic pattern on the abdomen.

The whole nearly of the fore part is of a dull-yellow colour; the normal indentations of the cephalothorax are suffused with dusky-brown, and from each of the hind-lateral eyes a brownish-black line runs backwards towards the occiput; and there are two strong, spine-like, curved bristles directed forwards from behind each lateral pair of eyes.

The *eyes* are small; those of the hind-central pair are the largest, and are separated from each other by no more than half a diameter's interval, if so much; and the line formed by them is distinctly shorter than that formed by the fore-central pair, and constitutes the hinder and shortest side of the square formed by the fore- and hind-central eyes; the eyes of each lateral pair are widely removed, by an interval of at least double the length of the line formed by the hind-central eyes. The clypeus is less in height than half that of the facial space.

The *legs* are rather short, but tolerably strong; their relative length is 1, 2, 4, 3, and they are furnished with hairs, bristles, and short, not very strong spines, each of which springs from a small blackish tubercle.

The *palpi* are moderately long and strong, and are furnished, chiefly towards their inner sides, with numerous bristles, and long, slender, curved spines.

The *falces* are moderately long, strong, perpendicular, and rounded in profile.

The *maxillæ* and *labium* are of normal form, and, except their extremities, which are pale, are of a yellow-brown colour.

The *abdomen* is of a broad-oval form, not excessively convex above, its upper surface being parallel to its under side, and its hinder part, as well as each side of its fore extremity,

rounded, but the latter are not prominent, as in several of the species described above; the middle, however, of the fore extremity projects forwards in a strong, blunt-conical form. The whole of the upper part, including the upper half of the sides, is of a cream-yellow colour marked with two converging rows of linear black spots; these rows are almost the whole width of the abdomen apart where they begin, which is just about half way from the hinder extremity to the middle of the fore extremity, and they represent the angular or dentated lines so common on the abdomen of the genus *Epëira*. Four parallel, longitudinal, dull-brownish, venose lines (the outer ones of which curve round and almost meet at their fore extremity, and the middle pair are shorter than the outer ones) are included within the two converging rows of spots above mentioned, and are also connected by another curved line which crosses at the ends of the two middle lines. The remainder of the sides, together with the whole of the under part, is of a dull-brownish hue, indistinctly mottled with dull whitish-yellow spots; and four large blotches of white spots form a square between the spiracular plates and the spinners. The sides are also marked with some oblique, venose, yellow-brown lines. The process, or epigyne, connected with the genital opening is prominent, tapering, not very long, obtuse at its extremity, which is curved, directed backwards, and transversely rugulose throughout.

Hab.—Murree, June 11th to July 14th, 1873.

60.—*EPËIRA PRÆDATA*, sp. n.

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

The *cephalothorax* is broad and round-oval behind, rather produced and narrow before; the forepart of the ocular area projecting over the clypeus. The hinder part of the cephalothorax is considerably higher than the forepart, and is well rounded and convex; it is of a brownish-yellow colour, with converging paler stripes, following the direction of the normal indentations. On the sides of the caput, near the eyes, are several strong, curved, spine-like bristles, directed forwards.

The *eyes* are of tolerable size, on the fore part and sides of the extremity of the caput; those of the fore-central pair are the largest of the eight, and are seated on a somewhat tubercular prominence; the interval between them is equal to, if not a little more than, a diameter, and the line formed by them considerably longer than that formed by those of the hind-central pair. These latter are on black spots, and near together, the interval being no more than half a diameter; the figure thus formed by the four central eyes is a rectangle, with its posterior side shortest, and its longest transverse diameter less than its longitudinal one; the interval between each hind-central eye and the hind-lateral next to it is equal to rather over two diameters of the former.

The *legs* are moderately long and tolerably strong; their relative length is 1, 2, 4, 3. They are furnished with hairs, bristles, and spines; three of the longest, strongest, and darkest of the last forming a transverse row near the slightly incrassated middle part of the inner side of the tibiæ of the first pair.

The *palpi* are short, and similar in colour to the legs. The cubital joint is short, and (in profile) of a sub-angular form, with two long, strong, yellow-brown, tapering, curved, spine-line bristles, directed forwards from its fore extremity on the upper side; the radial joint is very short, but is produced considerably in an obtuse form on the outer side, the end of the produced portion being furnished thickly with strong bristles; the digital joint is of

a brown colour, large and of a long oval form, hairy, and bristly; the palpal organs are very large and complex, consisting of various yellowish-brown and dark red-brown corneous processes.

The *falces* are neither very long nor strong; they are perpendicular, but removed far back under the projecting fore part of the caput; their colour (as well as that of the *maxillæ*, *labium*, and *sternum*, whose forms are normal) is like that of the legs.

The *abdomen* is of a short, oblong-oval form, equal in size at each end, and tolerably convex above. It is of a pale dull brownish-yellow colour; the upper side is more or less thickly mottled with white, leaving a broad median dull stripe on the fore half; the hinder extremity of this stripe has four (two on each side) obliquely diverging lines issuing from it, and is itself continued by a fine line (all of the same dull hue) to the spinners. Four small brown spots form a rectangle near the middle, and close behind the foremost pair of these spots is a large, roundish patch, free of all white mottling; a little behind the middle of the sides are four or five distinct, parallel, transverse, black-brown, fine lines; the hindermost line is the strongest, and has a large spot of the same colour near its inner extremity, thus altogether forming a transverse, interrupted line, appearing to cut off the extremity of the abdomen. On the under side is a large, somewhat quadrate area of white; and immediately behind it, is a semi-circle of five distinct white spots not far in front of the spinners.

This spider apparently belongs to the *Epëira cucurbitina* group.

Hab.—Murree to Sind Valley, July 14th to August 5th, 1873.

61.—EPËIRA CUCURBITINA.

Epëira cucurbitina, Clerck, Sv. Spindl. p. 44, pl. 2, tab. 4.

An immature example of this very pretty, but common and widely-dispersed spider was found in Dr. Stoliczka's collection.

Hab.—Sind Valley, 5th to 13th August 1873.

62.—EPËIRA CORNUTA.

Epëira cornuta, Clerck, Sv. spindl.

Hab.—Immature examples, which are, I believe, *Epëira cornuta*, Clk., and are certainly not distinguishable from immature European specimens of that species, were found in those portions of the collection made at Yárkand and neighbourhood in November 1873, and *en route* from Yárkand to Bursi between May 28th and June 17th, 1874.

63.—EPËIRA PANNIFERENS, sp. n.

Adult female: length 3 lines.

The *cephalothorax* is rather strongly constricted laterally at the caput, which is tolerably produced; the normal indentations are strong, especially that at the thoracic junction, and the oblique ones which mark the union of the caput and thorax. Its colour is pale yellow, with the whole of the upper part of the caput and a broad lateral band, which runs very near the margin the whole way round the cephalothorax, of an orange yellow-brown; the

band on the caput is of a rather elongated diamond shape, and is produced behind to the thoracic junction.

The *eyes* are in the usual four pairs, occupying the whole width of the fore part of the caput; the four central ones are as nearly as possible of equal size, and form a square whose posterior side is shorter than the rest; those of the hind-central pair are on largish, dark, reddish-brown spots, and are separated from each other by an eye's diameter; those of the fore-central pair are seated on a slight prominence, and are directed away from each other; the interval between them being nearly two diameters. Those of each lateral pair are seated obliquely and contiguously on a dark tubercle.

The *legs* of the third and fourth pairs (one only of each being all that remained in the example examined) are short, strong, of a pale-yellow colour, annulated with dark yellow-brown, and furnished with hairs, bristles, and a few spines.

The *palpi* are short, and similar to the legs in colour and armature.

The *falces* are moderate in length and strength, roundly prominent at their base in front, perpendicular, and of a pale-yellow colour.

The *maxillæ* are of normal form; their colour is brown, with a pale-yellowish border all round their extremity.

The *labium* is of a darker brown than the maxillæ, with a pale-yellowish apex.

The *sternum* is yellowish, suffused with dark brown; its form is heart-shaped, with the fore extremity broadly truncated and hollow.

The *abdomen* is large, oval, broadest in front, the middle of the fore margin of which is a little sub-angularly prominent; it projects considerably over the base of the cephalothorax, and is of a yellowish-brown colour mottled obscurely with whitish; the fore extremity of the upper side has a sub-angular, marginal, white stripe. Beginning at some little distance behind this is a large deep brown patch-like area, broad in front, and narrowing gradually, to about half its front width, near the spinners. This patch is bordered by a fine, deeper-brown sinuous line, outside of which is a distinct white border. On the sides, the white mottlings are gathered into broadish, though rather indistinct, oblique stripes; the under side is deep brown, bordered on each side with three large white spots, the middle one of which is the largest. The epigyne is rather short, of a pale-yellowish hue, tapering, blunt-pointed, and directed backwards.

Hab.—Murree to Sind Valley, July 14th to August 5th, 1873.

64.—EPËIRA CARNIFEX, sp. n.

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

The *cephalothorax* is tolerably strongly constricted on the lateral margins at the caput, which is also rather produced forwards; its colour is dull yellow, rather thickly clothed with a coarse greyish pubescence; and the whole of the upper side of the caput is of a deep brown, the same colour being prolonged backwards to the thoracic junction. The height of the clypeus is rather less than the diameter of one of the fore-central eyes.

The *eyes* are in the usual four pairs, occupying the whole width of the fore-part of the caput; the four central eyes form apparently, as nearly as can be, a square; the hind-central pair are seated on strong black spots, on a small tubercular prominence, and they are the largest of the eight, considerably larger than those of the fore-central pair, and separated by rather more than a diameter's interval.

The *legs* are moderately long, but not very strong, and their relative length is 1, 2, 4, 3. Their colour is dull brownish-yellow, annulated with darker reddish yellow-brown, and they are furnished with hairs, bristles, and strongish, but short, spines.

The *palpi* are similar to the legs in colour, moderately long and slender.

The *falces* are moderately strong, tolerably long, arched in profile, perpendicular, of a deep-brown colour, but pale-yellowish at the base, and furnished with bristles in front.

The *maxillæ* are of normal form, and of a deep-brown colour, pale-yellowish on the margin, at their extremity. The *labium* also is similar in colour, with a pale margin at the apex.

The *sternum* is heart-shaped and of a deep-brown colour.

The *abdomen* is very large, and in its general form and appearance reminds one of that of *Cyrtophora opuntia*, Duf. Its shoulders have each a short, somewhat conical prominence also. It projects considerably over the base of the cephalothorax; and when looked at in profile, the hinder extremity, which projects a little over the spinners, is nearly as high as the fore-extremity. The sides are steep and sloping inwards, and the upper side rather flat. The upper side is of a dull cream-white colour marked, clouded, and mottled with brown; the lateral margins of the white area are very strongly dentated, and along the middle of it are two very distinctly defined black dentated lines, which beginning near its fore extremity, converge towards each other (but do not meet) at the hinder extremity, where they are sometimes joined by a transverse blackish line. Along the middle of the fore part of the space included by these black dentated lines, which space is frequently darker or more suffused with brown than the area outside it, is a somewhat oblong deep brown, marking with two angular points on each side of it and a row of white spots along its middle. The fore extremity of the upper side has two prominent portions of the white area near the middle; these are generally curved, and enclose a more or less well-defined brown patch bearing a white spot in the centre, and in front of this, outside the brown patch, is another larger white spot; the under side is of deep sooty-brown colour, of a quadrangular form, margined by a distinct, broad, yellowish-white border, before and on its sides, each of the posterior ends of the border being continued on either side of the spinners by two well-defined white blotches, the anterior one of which is much larger than the other; from the middle of the hinder extremity, on the upper side, to the spinners there is generally a longitudinal central yellowish-white stripe; the sides are brown, thickly mottled with dull whitish-yellow. The genital aperture is simple in form, and somewhat of a transverse, kidney shape, placed rather behind a slightly prominent process from in front of which issues a moderately long, slender, epigyne, which curves backwards and has its extremity slightly sinuous. There is considerable variety in the markings of the upper side of the abdomen in this spider according as the brown mottlings are more or less diffused, or else well defined.

Hab.—Murree, June 11th to July 24th, 1873.

65.—*EPĒIRA*? *GIBBERA*, sp. n.

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

Probably this spider will be found some day, on comparison with some other closely allied exotic species, to be of a different genus from "*Epĕira*" (sensu stricto), in which event, I think, a new genus must be formed for its reception. At present I describe it as an aberrant and doubtful form of *Epĕira*.

The *cephalothorax* is very short and broad, and rises gradually from the hinder extremity to the fore part of the caput; though the real convexity of the whole does not vary much in one part or another, since the basal line rises forwards with the general rise of the caput; and the middle of the fore part of the caput has a rather prominently pointed appearance, without the lateral prominences (on which the lateral pairs of eyes are placed) usual in *Epëira*; in fact, there is an approach in the form of this part to some species of *Poltys*. The colour of the cephalothorax is yellow-brown, and it is clothed with a greyish pubescence.

The *eyes* are placed as in *Epëira* generally. Those of the hind-central pair are considerably larger than the fore-centrals; the interval between them is nearly about one and half diameters; they form a longer line than the fore-central pair, and together with them they form a rectangle whose greatest transverse diameter is longer than its longitudinal one. Between the eyes of the fore-central pair are two longish, divergent, pale-grey, bent bristles directed forwards and downwards. The eyes of each lateral pair are on slight tubercles, placed obliquely, and contiguous to each other; they are very widely removed from the four central ones, and, owing to the oblique, sloping character of the sides of the caput, are placed some way back, not far (when looked at sideways) above the middle of the base of the falces.

The *legs* are short, moderately strong, their relative length being 1, 2, 4, 3; they are of a yellow-brown colour, with faint traces of darker annulation; and are furnished with hairs and slender bristles, but no spines.

The *palpi* are short, slender, and nearly similar in colour to the legs, the digital joints terminating with a curved, toothed claw.

The *falces* are moderately long, strong, and similar in colour to the cephalothorax.

The *maxillæ* and *labium* are like those of *Epëira*: they are of a dark yellow-brown colour; the extremities of the former and the apex of the latter, pale dull whitish.

The *sternum* is short, heart-shaped, the fore extremity very broad and truncated; its colour is deep yellowish-brown, and it is clothed with a prominent grey pubescence.

The *abdomen* is very large, and almost conceals the cephalothorax; it is of a sub-conical form, the upper side towards the hinder extremity being produced gradually backwards and upwards into a considerable hump, whose termination is a large round deep-brown boss. The distance from this boss to the spinners is rather less than to the fore extremity on the upper side. Its colour is a dull-brown, mottled thickly above and on the sides with dull yellowish-white, leaving a largish, irregularly-defined brown patch near the middle of either side of the upper part. The middle of the upper part has four distinct, impressed, deep black-brown spots in a quadrangular figure, whose posterior side is much longer than its anterior, and its shortest transverse diameter longer than its longitudinal one. A little way from, and on each side of, the inferior spinners is a white spot, in front of which is another, or rather a somewhat roundish, white patch. The genital aperture is of a simple transverse oval form, covered by the epigyne, which is very prominent, directed backwards, curved, flattish, and rather tapering to a broad, rounded point.

Hab.—Murree to Sind Valley, July 14th to August 5th, 1873.

Genus—*CHORIZOOPES*, Cambr.

66.—*CHORIZOOPES STOLICZKÆ*, sp. n.

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

The *cephalothorax* is short, broadish, and massive in front; the caput elevated, especially

the occipital portion of it. The colour is a dark reddish yellow-brown, and there are some coarse greyish hairs on the surface, which is also finely punctuose.

The *eyes* are small, and placed in three widely separated groups; the central group of four eyes (forming a quadrangular figure whose anterior side is the shorter, and its posterior side the longer) is placed near the lower part of the foreside of the caput, the height of the clypeus rather exceeding the diameter of one of the fore-central eyes, which are a little the largest of the eight. These of each lateral pair are placed obliquely, close above the insertion of the falces, and separated from each other by an interval of at least the diameter of the fore-lateral eyes, which are larger than the hind-lateral.

The *legs* are short and slender; there is very little difference in the length of those of the first, second, and fourth pairs, the third pair being the shortest. They are of a dull yellow colour tinged with orange, annulated with reddish yellow-brown, and furnished with hairs and slender bristles only.

The *palpi* are short, slender, and similar to the legs in colour and armature.

The *falces* are rather long, strong, prominent at their base in front, and slightly divergent, obliquely truncated at their fore extremity on the inner side, the oblique portion being armed with a single row of short strong teeth and long bristly hairs. Their colour is rather paler than that of the cephalothorax, with a darker suffusion across the middle.

The *maxillæ* are strong and considerably inclined towards the labium, which is small and of a curvilinear triangular form. The colour of the *maxillæ* is yellow-brown; that of the *labium* paler.

The *sternum* is of a similar form to that of the labium, only of course much larger, and with its apex pointed in the opposite direction; it is of a dull orange yellow-brown colour, with some red-brown marginal indentations between the points of insertion of the legs.

The *abdomen* is large, of an oval form, more pointed before than behind, where it is very bluff and rounded. The general convexity is great, though the upper surface is rather flat, and it projects greatly over the base of the cephalothorax. On each side of the upper part is a longitudinal row of small pointed (or conical) protuberances, and another longitudinal row of three similar protuberances bisects the hinder part of the abdomen; the foremost of these last is nearly in a straight, transverse line with the hinder one of each of the other row. The upper part of the abdomen is of a dull golden-yellowish colour, marked on each side of the central line with blackish-brown, including the inside half of each of the conical protuberances, and leaving a clear, broadish, longitudinal, median yellow band, from which two curved lateral stripes, edged with black, issue on each side from its hinder half, and a prominent point on each side of its fore part; the sides are obliquely rugulose, and, with the under side, are yellowish, marked with dark brown; some of the lower lateral markings are oblique, and from the genital aperture two parallel, blackish streaks, close together, run to the spinners. The epigyne connected with the genital aperture is prominent, tapering, pointed, and a little directed backwards.

This spider is remarkable from the genus having only been previously recorded as indigenous to Ceylon.

Hab.—Murree to Sind Valley, July 14th to August 5th, 1873.

67.—CHORIZOOPES CONGENER, sp. n.

Adult female: length 2 lines.

The caput is greatly elevated, broad, well rounded on all sides above, and highest at the

occiput, appearing to overwhelm the thoracic portion by its disproportionate development; its sides are perpendicular, and it is divided longitudinally by a duplex, longitudinal, indented line. The colour of the cephalothorax is deep red-brown, except two largish oblique, somewhat oval patches on either side of the occiput, which are of a clear yellowish-red, and a patch on each side of the four central eyes, as well as the clypeus, which are dull reddish-yellow. The height of the clypeus is less than half that of the facial space, being equal to rather more than two diameters of one of the fore-central eyes. The surface of the cephalothorax is covered thinly with short fine hairs, and appears to be finely punctuose.

The *eyes* are small but not greatly different in size. They are placed in the usual three widely separated groups: the central one, of four eyes, is in the form of a quadrangle whose hinder side is the longer and its fore-side the shorter. The fore-centrals are slightly larger than the hind-centrals, seated on the sides of a slight prominence, and separated by rather more than a diameter's interval. Those of each lateral pair are near together, but not quite contiguous to each other, and are placed just above the hinder part of the insertion of the *falces* (looked at sideways).

The *legs* are short and not very strong; those of the fourth pair are distinctly the longest, and those of the third pair the shortest, the others differ but little from each other in length; those of the first pair slightly the longest. Their colour is yellow, annulated with light yellow-brown, and they are furnished with hairs and slender bristles only.

The *palpi* are short, slender, yellow, and without annuli; they are furnished with hairs, and several spine-like bristles on the inner-sides of the digital joints.

The *falces* are moderately long, very strong, roundly prominent near their base in front but retreating and directed backwards towards their extremity, where on the fore side there are two adjacent prominences, the larger and more prominent being the inner one of the two, and each is furnished thickly with strong bristles, in front of which are some strongish teeth.

The *maxillæ*, *labium*, and *sternum* are similar in form and structure to those of the preceding species; their colour is yellowish-brown, that of the sternum being the darkest; the apex of the labium and the extremities of the maxillæ being much the palest.

The *abdomen* is short, but broad and deep, the hinder extremity is broader and deeper than the fore part, and has four rounded prominences; three of these form a nearly straight transverse line along the upper margin, the middle one of the three being the largest and a little in advance of the other two, while the fourth is half way in a straight line between it and the spinners. It is clothed with short fine hairs of a greyish hue, and the upper side is yellowish and brown, with dark black-brown mixed; the most distinct of the yellow markings are in the median longitudinal line, towards the hinder extremity of which are two or three tolerably well-defined transverse angular bars or chevrons, with the angles directed forwards; and in front of them is a broad longitudinal band of yellow reaching to the fore extremity, and having a dusky brownish, ill-defined stripe along the middle; there is also a considerable patch of yellow on the lateral margins, mostly towards the hinder part of the upper side. The sides and under-side are deep brown; the former are rugulose, and the latter has some indistinct, dull orange-yellowish markings; the process (or *epigyne*) connected with the genital aperture is not very prominent, but obtuse, and directed backwards.

This spider is remarkably nearly allied to *Chorizoopes frontalis*, Cambr., from Ceylon, but is, I think, distinct, although closely resembling it in size, form, and colour.

Hab.—Murree to Sind Valley, July 14th to August 5th, 1877.

Family—*GASTERACANTHIDES*.Genus—*CYRTARACHNE*, Thor.68.—*CYRTARACHNE PALLIDA*, sp. n.Immature female: length $1\frac{1}{2}$ inch.

The whole of the fore part of this spider is of a pale straw-yellow colour: the normal grooves and indentations on the cephalothorax, as well as the occipital region, are suffused with whitish. The cephalothorax is short, broad behind, and but very slightly constricted laterally at the caput, the fore part of which is rather broad also. The occiput has some strong, erect bristles, and the height of the clypeus is equal to the diameter of one of the fore-central eyes. The eyes are in the ordinary position: they occupy the whole width of the fore part of the caput, and are of a pale dull amber colour; those of the hind-central pair are the largest of the eight, and are divided by an interval equal to an eye's diameter; those of the fore-central pair are divided by more than a diameter, and form a line very slightly shorter than that which is formed by the hind-central pair, the four central eyes thus forming very nearly a square.

The *legs* are rather short and slender, and are furnished with hairs and fine bristles only; their relative length is 1, 2, 4, 3.

The *palpi* are short and slender.

The *falces* are not very long, strong, straight, perpendicular. The *maxillæ*, *labium*, and *sternum* are of normal form, and similar to the legs in colour.

The *abdomen* is large, much the broadest across the middle, of a rather flattened form, and projects considerably over the base of the cephalothorax; it is of dull cretaceous-whitish hue with a longitudinal, median, dusky-brown line, which has some fine, oblique, venose lines of a similar colour issuing from its hinder part; and on either side of the fore part is a large, oblique, oblong, dull-brownish patch; the under side is sooty blackish.

Hab.—Murree to Sind Valley, July 14th to August 5th, 1873.

Family—*ULOBORIDES*.Genus—*ULOBORUS*, Walck.69.—*ULOBORUS ALBESCENS*, sp. n.Adult female: length $2\frac{1}{2}$ lines.

The *cephalothorax* is short, broad, nearly round behind, and gibbose on the thorax, on either side of the thoracic indentation: the caput, which is rather broad in front, is also constricted laterally. The colour is yellow-brown, paler on the margins along the medial line and on the outer side of the gibbous portion of the thorax.

The *eyes* are small, seated on black spots, and do not differ greatly in size; they are placed in two transverse curved rows, occupying the whole width of the fore part of the caput; the convexity of the curve of the hinder row is directed forwards, while that of the front row is directed backwards; the interval between the eyes of each lateral pair is thus greater than that between the fore and hind-central pairs. The interval between the eyes

of the hind-central pair is greater than that between each of them and the hind-lateral on its side; and the interval between those of the fore-central pair, which are seated on a slight prominence, is less than that between each of them and the fore-lateral on its side, the latter interval being also less than that between the eyes of each lateral pair. The interval between the fore-centrals is also very nearly as great as that between each hind-central eye and the hind-lateral on its side. The four central eyes form a quadrangular figure whose fore-side is the shortest and its hinder side slightly the longest. The clypeus is almost obsolete.

The *legs* are short, and those of the first and fourth, and second and third pairs respectively, do not differ greatly in length; those of the first pair are much the strongest, their relative length being 1, 4, 2, 3. They are of a pale yellow-brown colour, clouded in parts with a darker hue; excepting the calamistra on the metatarsi of the fourth pair, there were scarcely any hairs on the legs, but probably some of them had been rubbed off.

The *palpi* are short, and slender, of a dull yellow colour, furnished with bristles and grey hairs, and terminate with a rather strong curved, black, toothed claw.

The *falces* are small, slightly projecting forwards, and of a pale yellow-brown colour.

The *maxillæ* and *labium* are of normal form, and similar in colour to the palpi.

The *sternum* is heart-shaped, and of a pale brownish-yellow colour.

The *abdomen* is large, very much elevated and obtuse at its anterior extremity, which projects considerably over the cephalothorax, and somewhat pointed behind on either side of the upper part; near the anterior extremity is a roundish, somewhat sub-conical protuberance. The colour of the abdomen is yellowish white; an irregular brownish venose line extends along the middle of the fore part of the upper side, and emits some other fine venose lines on each side as it runs backwards; about the middle of each side, near, and partly on, the under side, is a rather oblique brown patch; and another of the same colour extends along a portion of the middle of the under side. On each side, near the base of the spinners, are two white spots, and immediately in front of the usual spinners is the supernumerary spinning organ. An obtuse prominent pale-yellowish process, slightly indented at its extremity and pointed backwards, is connected with the genital aperture.

Hab.—Murree to Sind Valley, between July 4th and August 5th, 1873.

Family—*THOMISIDES*.

Genus—*THOMISUS*, Walck. (*ad partem*).

70.—*THOMISUS ALBIDUS*, sp. n.

Immature female: length $1\frac{3}{4}$ lines.

It is with some hesitation that I describe this spider as a new species, since it is possible that in the adult state it may present some other specific characters which may either prove it to have been already described, or else render the present description quite inadequate for the determination of the species. As, however, there is no described species known to me to which I can refer it, I venture to include it here as new.

The *cephalothorax* is broadest quite at the hinder extremity, and narrows gradually to the fore extremity, which is also tolerably broad and truncated: the fore corners of the upper side of the caput are prominent and sub-angular. The margins of the cephalothorax are

whitish, the sides yellow-brown with a greenish tinge; the broad median longitudinal band, to a little distance behind the eyes, is pale yellow-brown, and the remainder is suffused with white; the ocular area and the middle part of the clypeus are also suffused with white.

The *eyes* are very small, seated on strong tubercles in a crescent form. The hind-laterals are the most prominent of the tubercles, forming the fore-angles of the caput; those of the fore-central pair are slightly the largest of the eight; the intervals between those of the hinder row are equal, as are, apparently, also those between the eyes of the anterior row; the interval between those of each lateral pair is less than that between the fore and hind-central pairs. The four central eyes form a square whose posterior side is longer than the rest. The height of the clypeus is less than half that of the facial space.

The *legs* of the first pair are moderately long, slender, of a dull whitish-yellow colour, and armed with two parallel rows of short spines beneath the metatarsi. The legs of the second pair were absent; those of the third and fourth pairs are much shorter than the first—the third slightly the shortest; they are rather paler in colour than the first, and have no spines.

The *palpi* were both absent.

The *maxillæ* and *labium* are of normal form, and similar to the legs in colour.

The *sternum* is nearly round, slightly hollow at the fore extremity, and its colour is whitish yellow.

The *abdomen* is large, considerably convex above, and projects greatly over the base of the cephalothorax; its hinder extremity is the broadest and most massive, and it is of a uniform yellow-white colour above, whiter on the sides and underneath.

Hab.—On the road from Yarkand to Bursi, between May 28th and June 17th, 1874.

71.—THOMISUS ALBENS, sp. n.

Immature female: length rather over $2\frac{1}{2}$ lines.

The *cephalothorax* has the slope of its sides and hinder part gradual and not very steep. The angular prominences at the fore-corners of the caput are strong; the *clypeus* projects forwards, and its height exceeds half that of the facial space. The colour of the cephalothorax is dull pale-yellowish, very slightly tinged with brown; the ocular area, all the middle portion of the clypeus, and a large arrow-head-shaped patch on the occiput (the point of the arrow running backwards to the hinder margin), are white, the sides, and part immediately behind the eyes, being also slightly veined with white.

The *eyes* are very small, seated on tubercles in two curved rows in the usual form of a crescent: those of the hind-central pair are further from each other than each is from the hind-lateral eye on its side, while the fore-centrals are considerably nearer together than each is to the fore-lateral on its side; those of each lateral pair are also much nearer together than the fore and hind-central pairs are to each other, the front row being much the more strongly curved. The four central eyes form nearly a square, the anterior side being considerably shortest, and the posterior one slightly the longest.

The *legs* of the first and second pairs are moderately long and tolerably strong; the second are, if anything, slightly the longest. They are of a pale dull yellowish colour suffused below with white, and the metatarsi are armed beneath with two longitudinal parallel rows of short spines; beneath the fore extremity of the tibiæ are one or two more spines, but

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besides these there appear to be no more on any of the legs. Those of the third and fourth pairs are much the shortest, the latter being a little longer than the third.

The *palpi* are short, destitute of bristles and spines, and similar to the legs in colour.

The *falces* are short, strong, sub-conical, rather projecting, and, excepting a small patch bisected with a white line at their base near the outer side, of a white colour like the clypeus.

The *maxilla* and *labium* are of normal form, and similar to the legs in colour.

The *sternum* is oval, hollow-truncate in front, and of a whitish hue.

The *abdomen* is of good size, flattened above, projecting well over the base of the cephalothorax, much broadest behind, where it is of a blunt-angular form on each side; the form of the upper side is therefore somewhat quadrangular, the fore part being a little roundly truncated; the sides, the fore part, and also the hinder extremity (which is abrupt) are rugulose and marked with rows of small impressed points; these are most apparent as a margin to the fore part and sides. The five normal impressed points are visible on the fore half of the upper side, and the whole of the abdomen is of a uniform white colour; the spinners are tolerably strong, very short, compact, and similar in colour to the legs.

This spider is allied to, but quite distinct from, *T. pugilis*, Stoliczka, found in the neighbourhood of Calcutta.

Hab.—On the route from Yárkand to Bursi, between May 28th and June 17th, 1874.

Genus—*MISUMENA*, Thor.

72.—*MISUMENA EXPALLIDATA*, sp. n.

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

The whole of the fore part of this spider is a dull pale yellow. The cephalothorax slightly tinged with brown, with a pale, somewhat triangular, patch at the occiput; the *falces* also being similarly tinged. The abdomen is white, a little suffused on the sides with brownish-yellow, and with a narrow, median, brownish stripe on the fore half of the upper side, emitting some lateral and posterior venose lines; the usual five impressed spots are also visible on the fore half of the upper side.

The *eyes* are small, and differ but little in size, the fore-laterals being rather the largest; they are seated on white tubercles, in the form of a crescent, in two curved rows, the anterior being the shorter and more curved; the interval between those of the hind-central pair is less than that between each and the hind-lateral eye on its side, while that between the fore-centrals is slightly greater than that between each and the fore-lateral next to it. The four central eyes form a square whose posterior side is a very little longer than its anterior, and the interval between those of each lateral pair is less than that between the fore and hind-central pairs. The height of the clypeus is less than half that of the facial space.

The *legs* of the first and second pairs are long, moderately strong, and scarcely differing in length; those of the third and fourth pairs are much shorter, less strong, but also of nearly equal length. Those of the second pair appear to be slightly the longest, and the third pair slightly the shortest; all are furnished with spines, of which there are two longitudinal parallel rows beneath the metatarsi and tibiæ of the two first pairs. The metatarsi and tarsi are tinged with reddish yellow-brown.

The *palpi* are short, slender, and furnished with hairs and bristles. The genital aperture is small and simple, being of a somewhat oblong form, a little narrower at its hinder than at its fore extremity.

Hab.—Murree, between June 11th and July 14th, 1873.

73.—MISUMENA OBLONGA, sp. n.

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

The *cephalothorax* is as broad as it is long; the marginal constrictions on the sides of the caput are strong; the thorax broader than long. The colour of the cephalothorax is dull yellow-brown, with a longitudinal median white line, and a lateral, somewhat zigzag, line of the same colour along the middle of each side. The central white line has two or three lateral points on each side, and it runs from immediately behind the ocular area, to the thoracic indentation: the clypeus projects a little forwards, and its height distinctly exceeds half that of the facial space.

The *eyes* are small, seated on white tubercles in two transverse rows, in a narrow crescent form; the front row is the shorter and more strongly curved; the ocular area is comparatively rather small, and the fore-lateral eyes are but slightly larger than the fore-centrals; these last are a little further from each other than each is from the fore-lateral on its side; while those of the hind-central pair are nearer together than each is to the hind-lateral next to it. The four central eyes form very nearly a square whose longitudinal is very slightly greater than its transverse diameter. The interval between those of each lateral pair is equal to that between the fore and hind-central pairs.

The *legs* of the first and second pairs are tolerably long and rather slender: those of the first appear to be a little the longest; those of the third and fourth pairs are much shorter, the third rather the shortest; all are of a pale, dull, straw-yellow colour, and are furnished with hairs, slender bristles, and spines; of the last there are two longitudinal parallel rows of long conspicuous ones beneath the metatarsi and tibiæ of the first and second pairs; the rest of the spines on these legs, and especially those on the third and fourth pairs, are small and inconspicuous.

The *palpi* are short, slender, and similar to the legs in colour and armature; the radial joint has a long, slightly curved, pointed spine near the base on the inner side, its point directed inwards.

The *falces* are moderately long, not very strong, sub-conical, projecting a little forwards, and similar in colour to the cephalothorax.

The *maxillæ* and *labium* are of normal form and similar to the legs in colour, the sternum being heart-shaped and of a pale straw-colour.

The *abdomen* is elongated, oblong-oval in form, and more than three times the length of the cephalothorax; its fore extremity is rather roundly truncated and broader than the hinder extremity, the widest part being a little in front of the middle; its colour is a dull straw-yellow, with the sides and a broad, median, longitudinal band pretty thickly spotted with white; the median band has a largish, elongate, diamond-shaped, dull-brownish, straw-coloured marking on the fore part emitting some short venose lateral lines. The genital aperture is small and simple, consisting of two round yellow-brown openings placed side by side, and edged with dark reddish-brown.

This is in several respects a remarkable spider and aberrant from the generic type, both in the form of the abdomen, the height of the clypeus, and the small comparative size of the ocular area. I hesitate, however, at present, to form a new genus for it, though it will probably be necessary at some future time to do so.

Hab.—Murree to Sind Valley, between July 14th and August 5th, 1873.

Genus—*SYNEMA*, Simon.

74.—*SYNEMA EXCULTA*, sp. n.

Adult female: length 2 lines.

The *cephalothorax* is short and broad; the lateral constrictions on the margin of the caput are slight, and the caput is broadly truncated before. The height of the clypeus is rather less than half that of the facial space. It is of a dull yellow-brown colour; the clypeus, as well as the ocular area and a broad longitudinal band on each side of the upper part, being of a deep reddish-brown colour; that of the two bands being the darkest; the occiput is marked with a somewhat curvilinear, angular, pale-yellowish marking, the angle of which is directed backwards. The sides and hinder slope of the cephalothorax are steep, and its surface is thinly covered with long, curved, prominent, rather tapering bristles.

The *eyes* are on tubercles, in two transverse curved rows occupying the whole width of the broad caput; the hinder row being the longer, and, if anything, slightly the more strongly curved; thus, the eyes of each lateral pair are rather further from each other than the fore-central pair is from the hind-central one. The eyes of each row respectively are equidistant from each other; though, if anything, the fore-centrals may be very slightly further from each other than each is from the fore-lateral on its side. The fore-laterals are the largest of the eight and considerably larger than the fore-centrals. The fore-central eyes form a square whose posterior side is longer than the other three.

The *legs* of the first and second pairs are moderately long and slender, the second pair being perhaps slightly the longest; they are of a yellow-brown colour, the femora much the darkest; the third and fourth pairs are much shorter, of a pale-yellowish colour, and the third pair is slightly the shortest. All are furnished with hairs, slender bristles, and spines.

The *palpi* are short, slender, and similar in colour to the third and fourth pairs of legs.

The *falces* are short, strong, sub-conical, slightly projecting forwards, and of a dull reddish yellow-brown colour.

The *maxillæ* and *labium* are of normal form, and of a dull brownish-yellow colour.

The *sternum* is heart-shaped and yellow.

The *abdomen* is short, considerably convex above, and projects entirely over the hinder slope of the cephalothorax; it is much broadest, and well rounded, towards the hinder extremity, and is of a dull yellow-brownish colour; the fore part of the upper side has a few deep red-brown points, and a diffused marginal border of white cretaceous spots; the hinder part is much covered with similar white spots arranged in three not very well defined transverse diffused, curved bars, the two intervals between the first three being of a deep red-brown colour; there are also some markings of the same dark, red-brown hue just above the spinners; the sides are rugulose, marked with indistinct reddish-brown streaks following the somewhat oblique course of the rugulosities. The genital opening is simple, and consists of two small, round, reddish-brown apertures in a transverse line.

This spider is allied to *Synema* (*Diæa*, Thor.) *globosa*.

Its fore-lateral eyes, however, are larger in proportion to the fore-centrals than in that species, and *S. exculpta* thus diverges still more widely from the spiders of the genus *Diæa*.

Hab.—Murree, between June 11th and July 14th, 1873.

Genus—*DIAEA*, Thor.

75.—*DIAEA SPINOSULA*, sp. n.

Adult male: length rather less than $1\frac{1}{2}$ lines.

The *cephalothorax* is as broad as, if not a little broader than, it is long, the caput short, broadly truncate in front, and constricted laterally at the lower margins; it is of a bright reddish orange-yellow colour, with a largish patch of a paler hue on the occiput; the surface is covered thinly with strong, prominent, dark-coloured spine-like bristles, and the margins are armed with minute but distinct teeth.

The *eyes* are small and seated on whitish tubercles, the fore-laterals being rather the largest; they are in two transverse, concentric, curved rows, the curve directed forward; and they occupy the whole width of the fore extremity of the caput, the front row being the shorter: the eyes of the hinder row are equidistant from each other, but those of the fore-central pair are nearer to each other than each is to the fore-lateral eye on its side. The tubercles on which the eyes of each lateral pair are placed are large and round, the interval between the eyes themselves being equal to that between the fore and hind-central pairs. The four central eyes form a quadrangular figure whose posterior side is the longest and anterior the shortest. The height of the clypeus is considerably less than half that of the facial space.

The *legs* are exceedingly slender; those of the first and second pairs are very long, and appear scarcely to differ in length; these two pairs are of rather a paler duller colour than the cephalothorax, the metatarsi, and the two-thirds of the tibiæ next to them, being of a deep reddish chocolate-brown; those of the third and fourth pairs are yellow, the third pairs being rather the shorter; excepting two or three small spines on the femora of the first and second pairs, the armature of the legs consists of hairs and slender bristles only.

The *palpi* are short and not strong; the radial joint is rather shorter than the cubital, and has a small, short, tapering, pointed apophysis at its outer extremity, with several longish bristles on its upper side: the digital joint is small and of a rather narrow, oval form (its length being about equal to that of the radial and cubital joints together), and it is a little suffused with brown. The palpal organs are very simple and not prominent.

The *falces* are short, but moderately strong, perpendicular, subconical, and similar in colour to the cephalothorax.

The *maxillæ*, *labium*, and *sternum* are yellow.

The *abdomen* is rather narrow, oval, and of a somewhat flattened form; its colour on the upper side, which is of a somewhat coriaceous nature, is a slightly brownish yellow, and is covered, like the cephalothorax, with erect, strong, tapering, spine-like, dark bristles; and there are five impressed yellow-brown spots on the fore half of the upper side, enclosing an acute angle directed forwards. The sides, and the hinder extremity of the upper side, are rugulose, and, with the under part, are of a pale straw-yellow colour.

Hab.—Murree, between June 11th and July 14th, 1873.

76.—*DILÆA SUBDOLA*, sp. n.

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

The cephalothorax is round-oval behind, broad and truncated in front, longer than it is broad, and the lateral constrictions of the caput are slight; its colour is dull brownish orange-yellow, the hinder part of the caput, and some short lateral converging stripes, being pale yellow; its surface is smooth and glossy, but covered very thinly with long, nearly erect, curved black bristles; the height of the clypeus is a little less than half that of the facial space.

The *eyes* are seated on rather strong, greenish-white tubercles in the form of a crescent; they do not differ greatly in size; the fore-laterals are, however, distinctly the largest of the eight, and the tubercles on which they are seated are also the largest; the other eyes differ very slightly in size; the fore-centrals, however, appear to be rather larger than those of the hinder row: the front row being the shorter and more curved, a more strongly crescent form than usual is given to the ocular area, and the interval between the eyes of each lateral pair is consequently less than that between the fore and hind-central pairs: the intervals between the eyes of the hinder row are as nearly as possible equal, while that between the fore-centrals is distinctly greater than that between each and the fore-central on its side. The four central eyes form a quadrangular figure whose longitudinal is slightly greater than its transverse diameter at the hinder part, and its fore-side the shortest.

The *legs* are not very slender; those of the first and second pairs are long, the latter slightly the longer; the third pair is the shortest, but that and the fourth pair, in proportion to the first and second, are not so short as usual; they are very nearly of the same colour as the cephalothorax, and are furnished with bristles and longish slender spines.

The *palpi* are short and similar to the legs in colour; the radial and cubital joints are short and of nearly equal length; the former is, if anything, rather the shorter, but a little stronger; it has a few strong spine-like bristles, and its extremity on the outer side is prolonged into a longish projection, bent a little downwards and backwards, rather broadest near its extremity, which is rather bifid or slightly furcate; and there is another strong, curved obtusely-pointed process beneath the joint. The digital joint is large, broad, and rounded behind, pointed in front, and is somewhat angularly prominent on the outer margin; the palpal organs are simple but encircled by a long, strongish, black spine which issues from their base on the inner side.

The *falces* are neither long nor very strong; they are nearly perpendicular, and similar in colour to the cephalothorax; the *maxillæ* and *labium* are of the ordinary form and rather duller and paler than the falces.

The *sternum* is heart-shaped and of a brightish yellow colour.

The *abdomen* is round and broadest behind, narrower and more pointed before; it is of a dull brownish-yellow colour, marked with cretaceous white spots on either side of the upper part, defining indistinctly the normal dentated central band so conspicuous generally in *xysticus*; there are also several deep red-brown spots on each side, and a large patch suffused with red-brown at the hinder extremity surrounding the spinners, but chiefly placed on each side of them; the under side is paler than the upper; the upper side is furnished with a few scattered, long, strong bristle; and an oblong-oval patch between the spiracular plates is similar in colour to the *sternum*. It is probable that there may be, in a series of examples,

such considerable variety in the extent and nature of the abdominal markings, as is found to be in some others of this group.

Hab.—Murree, between June 11th and July 14th, 1873.

77.—*DIAEA SUFFLAVA*, sp. n.

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

The *cephalothorax* is round behind, and constricted laterally at the caput; its colour is yellow, and the upper surface of the caput has a few strong, blackish, prominent bristles. The height of the clypeus is less than half that of the facial space.

The *eyes* are seated on round tubercles, in two curved transverse rows, in the form of a crescent; the curves of the rows are directed forwards, and the front row is the shorter and more strongly curved. The fore-lateral eyes are slightly the largest, and are nearer to the hind-laterals than the fore-central pair are to the hind-central; each is also nearer to the fore-central eye on its side than the fore-centrals are to each other; the hind-centrals are slightly nearer to each other than each is to the hind-lateral on its side; the four central eyes describe very nearly a square, its fore side being slightly shorter than its hinder one, and its longitudinal very slightly longer than its transverse diameter.

The *legs* of the first and second pairs are long and tolerably strong; they are similar in colour to the cephalothorax, and, with those of the third and fourth pairs, are furnished pretty freely with spines, besides hairs and bristles. The difference in length between the first and second pairs is very slight; if anything, those of the first pair are a little the longer: the third and fourth pairs are short, the fourth slightly the longer; they are rather paler than those of the first and second pairs.

The *palpi* are short and of a pale yellow colour. The cubital and radial joints are short, but about equal in length; the former has a long, strong, tapering, curved bristle at the middle of its fore extremity on the upper side, and the latter has two or three upon it, but less strong than that on the cubital joint. The radial joint also has its fore extremity on the outer side, produced into a not very large, slightly tapering, sharp-pointed apophysis, the point being of a corneous claw-like nature, and directed slightly outwards and downwards. There is also another apophysis, at the extremity, underneath this joint, stronger, curved, and obtuse at the extremity; the digital joint is tolerably long, equal in length to the radial and cubital joints together, oval, and pointed at its anterior extremity; the palpal organs are small, simple, and apparently without any marked spines or processes.

The *falces* are short, strong, straight, perpendicular, not greatly broader at their base in front than at their extremity, and their colour is similar to that of the legs. The *maxillæ* and *labium* are of normal form; the former are rather paler in colour than the legs, the latter is yellow-brown.

The *abdomen* is rather large, of an elongate-oval form, decreasing gradually in breadth from its fore to its hinder extremity; its convexity on the upper side is not great, but tolerably uniform. It is of a pale dull yellow-brown above, and pale dull straw-yellow on the sides and underneath; the upper side is margined by a belt of whitish cretaceous spots, on the inner side of which is an irregular row of dark red-brown spots which increase in size towards the hinder extremity, and evidently represent the ends of a series of broken trans-

verse angular bars; the surface is also thinly covered with a few prominent dark-coloured bristles, and the spinners are short and of a yellow-brown colour.

Hab.—Murree, between June 11th and July 14th, 1873.

78.—*DIAEA SUSPICIOSA*, sp. n.

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

This spider is very nearly allied to *Diaea dorsata*, Fabr. (*Thomisus floricolens*, Blackw.), but may be distinguished by its generally lighter hue and less distinct markings, as well as by a quite different structure of the palpi and palpal organs.

The *cephalothorax* is yellow; the sides, the fore part of the upper side of the caput, and the normal indentations are strongly suffused with yellow-brown; and there are a few strongish bristles on upper margins of the caput. The ocular region has none of the deep rusty red-brown suffusion characteristic of *Diaea dorsata*. The height of the clypeus is less than half of that of the facial space.

The *eyes* are seated on round, whitish tubercles, in two nearly concentric curved rows; the front row being a little the more strongly curved, and thus the eyes of each lateral pair are brought rather nearer together than the fore- and hind-central pairs are to each other. The fore-laterals are largest of the eight, and seated on the strongest tubercles; the interval between those of the hind-central pair is rather less than that between each and the hind-lateral on the same side; and the interval between the fore-centrals is very slightly, if anything, greater than that between each and the fore-lateral on its side. The four central eyes form a square whose anterior side is the shortest.

The *legs* of the first and second pairs are very long; those of the first the longer, slender, and of a yellow colour, suffused with reddish yellow-brown at the fore extremity of the femora and genua, and at both extremities of the tibiæ, but the colouring scarcely amounts to annulation; and the under sides of the femora are speckled with red-brown; those of the third and fourth pairs are much shorter than the others; the third pair rather the shorter, and paler in colour than the rest; all are furnished with hairs and spines.

The *palpi* are short, and pale yellow; the digital joints suffused with brown. The radial joint is shorter than the cubital, and has its outer side, at the fore extremity, produced into a tolerably strong and long, tapering, sharp-pointed apophysis, with a distinct angular point about the middle underneath. In *Diaea dorsata* this point is replaced by a larger and rounded protuberance close at the end of the apophysis, which gives it a more bifid form. The digital joint is of tolerable size, broad-oval behind, and with a slightly constricted, narrow extremity, and the outer margin near the base is somewhat sub-angularly prominent; the palpal organs are simple and encircled by a black filiform spine. The radial and cubital joints are furnished with two or three strong tapering bristles, and the digital joint is also hairy and bristly. This joint is smaller in *Diaea dorsata*, and the palpal organs in that species have no encircling black spine.

The *falces* are short, strong, straight, sub-conical, perpendicular, and similar in colour to the cephalothorax.

The *maxilla*, *labium*, and *sternum* are of normal form, and of a pale-yellow colour.

The *abdomen* is oval, of a rather flattened form; its upper side is of a dull pale-yellowish hue, thinly pencilled with whitish, and deep brownish, rusty-red spots: the sides of the

upper part are a little suffused with brownish rusty-red, and its margins have a tolerably distinct white border; the sides have a longitudinal brownish rusty-red band, which runs round the fore extremity, including the spinners, and joining in with the rusty-red colouring at the hinder extremity of the upper side. The under side is of a uniform pale dull yellow.

Hab.—Route from Yárkand to Bursi, between May 29th and June 17th, 1874.

79.—*DIAEA SUBARGENTATA*, sp. n.

Adult male: length rather under 2 lines.

This spider is nearly allied to *Diaea (Xysticus) Pavesii*, Cambr., Journ. Linn. Soc., vol. xi, p. 540, pl. 15, fig. 8, but it may be distinguished without difficulty, if the descriptions of the markings on the abdomen, and the structure of the palpi in the two species are carefully compared.

The *cephalothorax* is round behind, slightly constricted on the lateral margins at the caput, the fore extremity of which is broad and slightly roundly truncated. It is of a brownish-yellow colour, with a not very strongly defined, longitudinal, darker reddish yellow-brown band on each side of the upper part; the caput is also rather suffused with lighter reddish yellow-brown, and there is a somewhat arrow-head-shaped yellow marking on the occiput, with the point directed backwards. The height of the clypeus is just half that of the facial space.

The *eyes* are on round, whitish tubercles in the usual two-curved rows, which are very nearly concentric, making the interval between the eyes of each lateral pair nearly equal to that between the fore and hind-central pairs. The interval between the eyes of the hind-central pair is distinctly greater than that between each and the hind-lateral eye on its side; while that between the fore-centrals is less than that between each and the fore-lateral eye on its side. The four central eyes form a rectangle whose posterior side is the longest and anterior the shortest. The fore-laterals are but slightly the largest of the eight.

The *legs* of the first and second pairs are long and moderately strong; those of the second pair are, if anything, slightly the longer; they are of a brownish yellow colour, the genua, as well as the two extremities of the tibiae, and the fore extremity of the metatarsi, being of a darker reddish yellow-brown, giving them an annulated appearance. Those of the third and fourth pairs are much the shortest, the third pair being the shorter of the two; these are of a plain pale yellowish hue; and all the legs are furnished with hairs, slender bristles, and spines.

The *palpi* are short, slender, and of a brownish-yellow colour. The cubital and radial joints are short, and are furnished with several longish, tapering, dark bristles; the radial is the shortest and has a not very long nor strong tapering apophysis at its extremity near the outer side, terminating with a sharp, somewhat corneous-looking point. There is also another apophysis on the under side, apparently rather stronger, and obtusely pointed. The digital joint is as long as the radial and cubital joints together, and is of a narrow-oval form, sharpish pointed at its anterior extremity. The palpal organs are small and simple in form, apparently encircled, or nearly so, with a very slender filiform spine.

The *falces* are moderate in length and strength, sub-conical, and directed a little backwards. Their colour is like that of the cephalothorax.

The *maxillæ* and *labium* are of normal form, and of a light yellowish-brown colour.

The *sternum* is heart-shaped and yellow.

The *abdomen* is oval, moderately convex above, though of a somewhat flattened form on the upper side; it is broadest towards the hinder extremity, which is obtuse-pointed, and its fore extremity is roundly truncated. The upper part and sides are of a dull yellowish hue, thickly covered with somewhat scale-like spots of a silvery whitish colour. Five impressed spots form a triangle on the fore half, whose apex is directed forwards. The apical spot is surrounded with dull reddish yellow-brown; and immediately following the last impressed spot on each side is a row of three or four reddish yellow-brown blotches, decreasing in size as they run backwards, the two rows of blotches converging to the spinners; these last are short and yellow-brown in colour; the superior and inferior pairs are of equal length, but the latter are the strongest; and at the extremity of the abdomen on each side of the spinners is an oblong patch of red-brown.

The female is altogether lighter coloured than the male; the abdomen has no markings, excepting the normal five impressed spots on the upper side, and the oblong patch (which, however, is very indistinct) on each side of the spinners; the legs also are of a uniform lute yellow, and those of the third and fourth pairs are destitute of spines, or at any rate they are no stronger than an ordinary bristle.

Hab.—Murree, between June 11th and July 14th, 1873.

Genus—*XYSTICUS*, C. L. Koch.

80.—*XYSTICUS CRISTATUS*.

Xysticus cristatus, Clerck (sub *Araneus*), Sv. Spindl., p. 136, pl. 6, tab. 6.

Hab.—Examples of a spider, which I believe to be of this species, were contained in a portion of the collection labelled 'Road across the Pamir from Sirikol to Panja and back, April 22nd to May 7th, 1874;' and 'Yárkand and neighbourhood, November 1873'.

81.—*XYSTICUS PINI*, Hahn.

Hab.—Young examples of this spider were contained in a part of the collection from the Sind Valley, 5th to 13th August 1873, and Hills between Sirkol and Aktalla, 8th to 13th May 1874.

82.—*XYSTICUS MACULOSUS*, sp. n.

Adult female: length 2 lines.

In form and structure this spider closely resembles *Xysticus audax*, Bl.; its colours are a speckled mixture (both above and below) of white, yellow-white, yellow-brown, dark-brown, and red-brown.

The sides of the *cephalothorax* are dark-brown, marbled and marked with pale yellow-brown: the upper part, consisting of a broad longitudinal band, is yellow-white, suffused with pale yellow-brown forwards, and spotted all over with small spots of a darker hue, two rather distinct parallel lines of the darker yellow-brown running close together from between the hind-central pair of eyes to the occiput. The lower margin of the clypeus has a row of strong prominent bristles directed forwards.

The *legs* of the first and second pairs are rather strong and moderately long, those of the first pair a little the longer; they are distinctly spotted and blotched with yellow-brown, dark-brown, and white on a pale-yellowish ground, the outer sides of the femoral and tibial joints being marked, rather distinctly, with a longitudinal white stripe, on each side of which is a dark-brown one; the inner sides of the tibial and metatarsal joints are armed with two longitudinal rows of strong spines springing from tubercular eminences. The legs of the third and fourth pairs are much shorter than the rest, and marked with similar colours, but presenting a more annulated appearance.

The *palpi* are short, pale-yellow, roughly annulated with deep-brown, and armed with bristles and short spines.

The *falces* are short, tolerably strong, sub-conical, perpendicular, marbled with pale yellow-brown, white, and deep brown, and furnished with some strong prominent black bristles.

The *maxillæ* and *labium* are dark dull brown; and the *sternum* is yellowish-white, distinctly speckled with small, deep black-brown points.

The *abdomen* is oval, broadest behind, where it is rounded, the fore extremity being rather truncate, and projecting over the whole hinder slope of the cephalothorax. The upper side is flattish, of a dull pale yellow-brown colour, thickly and minutely speckled with darker yellow-brown and whitish, with a few deep reddish-brown spots round the margins, and some smaller ones of the same colour thinly dispersed over the whole; the sides are rugulose and whitish, speckled thinly with yellow-brown and deep red-brown, the under side being dull yellow-brown, thickly and minutely speckled with small white and red-brown points.

This spider is nearly allied to *Xysticus græcus*, C. L. Koch, from which, as also from another nearly allied Egyptian species, *X. promiscuus*, Cambr., it is certainly distinct; from the latter it may at once be distinguished by the almost total absence of the characteristic dentated pattern on the upper side of the abdomen. This is quite distinct in *X. promiscuus*, while in the present spider it can scarcely be traced excepting by a very slightly paler tone in the general hue.

Hab.—Murree, between 11th June and 14th July 1873.

83.—XYSTICUS SETIGER, sp. n.

Adult female: length nearly 3 lines.

The whole of the fore part of this spider is of a reddish, orange-yellow-brown colour. The *cephalothorax* is of ordinary form, and has two longitudinal, darker yellow red-brown bands running backwards, one from each hind-lateral eye, the fore part of the median band being rather darker than the rest; and it is covered thinly with long, strong, dark, prominent bristles, directed a little forwards.

The *eyes* are on small yellowish tubercles, and differ a little from the typical position of *Xysticus*. The fore-laterals being placed farther back, give a stronger curve to the front row, and bring the eyes of each lateral pair nearer together; the interval between them in the present spider being distinctly less than that between the fore and hind-central pairs, while in the typical *Xyticus* it is equal, if not greater. The position of the eyes is thus more like that of *Philodromus*. The four central eyes form very nearly a square, whose fore side is rather longer than the hinder one, and its sides slightly longer than its fore side. The height of the clypeus is nearly equal to half that of the facial space.

The *legs* are tolerably long and strong; those of the first pair are slightly longer than those of the second; these latter are thinly speckled with red-brown, and a little clouded, on the femora of the first pair, with a darker hue than that of the ground-colour. They are furnished with hairs, bristles, and spines; the last form two longitudinal parallel rows beneath the tibiæ (6—6) and metatarsi (5—5), and issue from tubercular eminences; the legs of the fourth pair are distinctly longer than those of the third. Each tarsus has a small claw-tuft beneath the two terminal claws.

The *palpi* are short, not very strong, and are furnished with hairs, bristles, and spines.

The *falces* are short, strong, sub-conical, perpendicular, and furnished with strong prominent bristles in front.

The *sternum* is oval-pointed behind, truncated in a hollow line in front, and of a pale orange-yellow colour, destitute of bristles and (apparently) of hairs also.

The *abdomen* is broadest towards its hinder extremity, which is obtusely pointed, the fore extremity being truncated; it is of a deep yellow-brown on the upper side, mottled with reddish yellow-brown along the middle, indistinctly indicating the normal dentated band, and some transverse, slightly curved line towards the hinder part; the upper side is also covered with long, strong, slightly curved, nearly erect blackish bristles: the sides are rugulose, paler than the upper part, slightly suffused with white, and thinly speckled with few dark black-brown points; the under side is yellow-brown, and has a large quadrate, central area thickly mottled with small, whitish-yellow spots.

Hab.—Murree, between 11th June and 14th July 1873.

84.—XYSTICUS BREVICEPS, sp. n.

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

The *cephalothorax* is short, its breadth at least equalling its length; the caput, constricted laterally, is broad and particularly short; when looked at in profile, the hinder slope is very abrupt, and the depth of the cephalothorax is greatest there, sloping, in a slight curve, very gradually thence to the eyes. The colour is pale-yellow, irregularly streaked and marked with whitish-yellow; it is margined laterally with a distinct whitish, narrow border, and a broad, reddish yellow-brown, longitudinal band occupies the upper part of each side; the normal spade-shaped marking on the upper side is indicated by a reddish-yellow suffusion, and a posterior limit, formed by a curvi-angular, whitish-yellow distinct stripe. The space enclosed by this stripe is also marked with whitish-yellow striæ, bearing short erect bristles; some stronger bristles occur in the ocular region, and on the lower margin of the clypeus, which is less in height than half that of the facial space.

The *eyes* of each lateral pair are perceptibly nearer together than the fore- and hind-central pairs are to each other, owing to the fore-lateral eyes (which are the largest of the eight) being placed farther back than usual, giving the front row a stronger curve than that of the hinder one. The four central eyes form very nearly a square, the longitudinal being rather less than the transverse diameter.

The *legs* are rather short, and strong: those of the first and second pairs scarcely differ in length, those of the third pair being distinctly shorter than those of the fourth. They are of the same colour as the cephalothorax, striped with whitish-yellow, and furnished with hairs, bristles, and spines; the last are, principally, in two parallel rows beneath the tibiæ

and metatarsi of the first and second pairs; those on the metatarsi are much the strongest and most numerous. The femora of the first pair have three smaller erect spines in a longitudinal line on the upper side.

The *palpi* are short, and similar to the legs in colour and armature.

The *falces* are strong, moderately long, subconical, and a little projecting forwards; they are of a reddish yellow-brown colour, marked and suffused with whitish-yellow, and furnished with bristles in front.

The *maxillæ* and *labium* are normal in form, and similar in colour to the legs.

The *sternum* is oval, blunt-pointed behind, and broadly truncated in front; it is of a pale whitish-yellow colour, thinly clothed with slender, erect, bristly hairs.

The *abdomen* is oval, rounded in front and obtusely pointed behind, tolerably convex above, and thinly clothed with hairs. The upper side is of a whitish-yellow or dull cream-colour, thickly speckled with minute red-brown specks; the sides are rugulose, and pale yellow-brown; the rugulosities yellow-white, minutely spotted with red-brown; the under side is pale whitish-yellow, like the sternum. The ordinary longitudinal, dentated band on the abdomen is imperceptible; probably, however, some variety exists in this respect in different examples.

Hab.—Yárkand to Bursi, between May 28th and June 17th, 1874.

85.—XYSTICUS MUNDULUS, sp. n.

Immature male: length just over 2 lines.

The *cephalothorax* is of ordinary form, and has a whitish, narrow marginal border. The sides are of a dull reddish yellow-brown colour, irregularly but distinctly marked with short whitish streaks and markings, leaving a broad, median, longitudinal, nearly white band, slightly narrowest at its hinder extremity; the fore part of this band contains the normal spade-shaped marking, which is of a dull pale-brownish hue, rather peculiar in form, and marked with some red-brown lines and markings; its posterior extremity being also continued, by a red-brown line, to the thoracic indentation.

The *eyes* are in the normal position; the four central eyes form very nearly a square, the longitudinal being slightly greater than the transverse diameter, and the fore side slightly shorter than the hinder one; the interval between those of the hind-central pair is distinctly less than that between each and the hind-lateral eye on its side, and the interval between those of each lateral pair is equal to that between the fore- and hind-central pairs. The height of the clypeus is scarcely more than one-third of that of the facial space.

The *legs* are tolerably long and strong; those of the second pair are slightly longer than those of the first, and the third pair are a little the shortest. They are of a yellowish colour, more or less suffused and striped longitudinally with white, especially on the femora of the first and second pairs, which are also prettily spotted with reddish yellow-brown. The other legs are also spotted, though more faintly; the tarsi and metatarsi of all being of an almost unmarked pale-yellow colour. The tibiæ and metatarsi of the first and second pairs are armed with a few longish, not very strong, spines, in two parallel longitudinal rows on the under sides.

The *palpi* are similar in colour to the legs.

The *falces* are short, strong, subconical, perpendicular, furnished with a few strong bristles; they are of a whitish colour, excepting at the base on the upper side, where they are yellow-brown.

The *maxillæ*, *labium*, and *sternum* are of normal form, and their colour is nearly white; the *sternum* spotted thinly with small, deep reddish-brown points.

The *abdomen* is oval, of a rather flattish form, and not much broader at any part than it is before and behind, at both which points it is rounded. The sides of the upper part are of the same colour as the sides of the cephalothorax; the normal longitudinal, median, dentated band is of a paler hue, bordered with white, and marked with a few red-brown points; the sides are whitish, rugulose, and thinly spotted with red-brown; the outer side is also similarly coloured.

Hab.—Sind Valley, between August the 5th and 13th, 1873.

Genus—*MONASTES*, Luc.

86.—*MONASTES DEJECTUS*, sp. n.

Adult female: length nearly $2\frac{1}{2}$ lines.

The *cephalothorax* of this spider is nearly round, excepting the clypeus, which is broad, square at the fore extremity, and projecting; the hinder extremity also is rather flattened; the sides are sloping, and the upper surface flattish. It is of a reddish yellow-brown colour, mottled and marked with yellowish-white, showing a broad, pale, longitudinal, median band of the latter hue (including the eyes and clypeus), with two short, yellow-white streaks and red-brown spots, on either side, near its hinder extremity, indicating some of the usual converging furrows. On each side of the median band (also near the eyes) is another short, yellow-white longitudinal streak, terminating posteriorly in a red-brown spot; the lower part of the sides is more mottled with white than the rest. A few strongish bristles are dispersed over the cephalothorax, but most of them had apparently been broken off.

The *eyes* are in two concentric, curved, rather widely-separated rows; the convexity of the curve is directed forwards, and the front row is much the shorter. The fore-central pair are the smallest of the eight, and the fore-laterals slightly the largest, being rather larger than the hind-laterals. The eyes of the front row are separated by nearly equal intervals, that between the central pair being perhaps rather greater than that between each and the lateral on its side. The four central eyes form a quadrangular figure whose fore side is considerably the shortest, and whose longitudinal diameter is much greater than its widest transverse diameter; the interval between the hind-centrals is less than that between each and the hind-lateral on its side. The four lateral eyes are seated on large, roundish, tubercular eminences; and the height of the clypeus equals half that of the facial space.

The *legs* are slender: those of the first and second pairs are long, and very nearly equal in length; the second, if anything, slightly surpass the first; those of the third and fourth pairs are short, and scarcely differ in length; the third, if anything, being slightly the longer; they are of a pale brownish-yellow colour, mottled, chiefly beneath, with white, and spotted thinly with small red-brown tubercles, each of which is surmounted by a short slender spine.

The *palpi* of the male are short, of a dull-yellow colour, slightly mottled with white; the radial joint is shorter than the cubital, and both have some bristles springing from dark red-

brown spots; also, besides some lesser projections on the under side, the radial joint has, at the extremity of the outer side, a rather long tapering one, with a curved, obtusely-pointed dark-brown termination; the digital joint is of moderate size and almost wholly white, of an oval form, with its fore extremity pointed and rather elongated: the palpal organs are not prominent, but of simple form, with a curved, sharp-pointed, dark red-brown spiny process at their fore extremity.

The *falces* are moderately long, but not very strong; they are of a subconical form, and project in a continuous line with the clypeus; their colour is a pale yellow-brown, mottled (chiefly at their fore extremity) with white.

The *maxillæ* and *labium* are of normal form, and of a pale dull-yellowish colour.

The *sternum* is oval, pointed behind, of a pale whitish-yellow colour, sprinkled with dull yellow-brown points.

The *abdomen* is of a somewhat pentagonal form, broadest and subangular at the hinder part; the hinder extremity is blunt-pointed below, but has a slightly angular prominence at the middle of its upper part; it is of a dull brownish-yellow colour, mottled, suffused, and marked with white, chiefly along the middle line of the upper side, and the lower part of the sides; the upper side is also thinly and symmetrically sprinkled with small, red-brown, tubercular spots, each of which bears a strongish, slightly curved bristle, directed backwards.

Hab.—Murree to Sind Valley, between July 14th and August 5th, 1873.

Genus—*SAROTES*, Sund.

87.—*SAROTES REGIUS*.

Aranea regia, Fabr., Entom. system. t. iii, p. 408, No. 4.

Olios leucosius, Walck., Ins. Apt. i. p. 566.

Hab.—Two or three immature females, found at Murree between June 11th and July 14th, 1873, are, I believe, of this species; but in the immature state it is impossible to be quite certain of their specific identity.

88.—*SAROTES PROMPTUS*, sp. n.

Adult female: length $6\frac{1}{2}$ lines.

The *cephalothorax* is rather longer than broad, a little constricted on the lateral margins near the fore extremity of the caput, and broadly truncated at the lower margin in front. The colour is a dark reddish yellow-brown, marked with still deeper stripes following the course of the normal indentations, and converging to the thoracic junctional one; it is thinly clothed with greyish-sandy pubescence, and the clypeus (which is of a paler yellowish colour and considerably less in height than half that of the facial space, or about equal to, or a little more than, the diameter of a fore-lateral eye) is furnished with a few prominent, black bristles.

The *eyes* are in two transverse, nearly parallel rows; the fore-laterals are the largest of the eight, and considerably larger than the fore-centrals; these last are further from each other than each is from the fore-lateral on its side, the interval between each fore-central and the fore-lateral eye next to it being equal to the diameter of the latter. The eyes of

the hind-central pair are nearer to each other than each is to the hind-lateral eye nearest to it; the interval between the eyes of each lateral pair is rather less than that between the fore- and hind-central pairs, owing to the small size of the fore-central eyes.

The *legs* are moderate in length and strength; in respect to the former, they do not differ greatly; relatively this appears to be 2, 4, 1, 3. Their colour is reddish yellow-brown, growing darker gradually to the tarsi; the femora are much the palest, and are obscurely spotted with small, red-brown spots; all are armed with long spines, and the tarsi and metatarsi are furnished with claw-tuft and scopula.

The *palpi* are moderately long, the digital is equal in length to the radial and cubital joints together, while in colour and armature they resemble the legs.

The *falces* are tolerably long, powerful, straight, perpendicular, and rounded in the profile line; their colour is reddish yellow-brown, somewhat longitudinally striped with a darker hue.

The *maxillæ* are rather long, straight, slightly inclined towards the labium, and rounded at their extremities, which are of a yellowish colour, the rest being dark red-brown.

The *labium* is small, of a somewhat semi-circular form, and its height is not half the length of the *maxillæ*. Its colour is dark red-brown, with a pale apical margin.

The *sternum* is heart-shaped, and of a yellow colour, like that of the basal joints of the legs.

The *abdomen* is oblong-oval, rather truncate before, and rounded behind, and moderately convex above; it is clothed with somewhat silky, sandy-grey pubescence, and is of a dark red-brown and reddish yellow-brown colour, mixed in variously mingled spottings and linear markings. An indistinct, longitudinal, narrow, dark red-brown, tapering marking occupies the middle of the fore part of the upper side; and towards the hinder extremity is a slightly sinuous, transverse, dark blackish line, edged posteriorly with pale-yellowish, and rendered conspicuous by short white hairs. Along the middle of the under side, from the genital aperture to the spinners, is a broad, black-brown band, laterally margined with a pale stripe. The genital aperture, which is large, conspicuous, and of a somewhat triangular form, has two large, nearly round, prominent lobes or processes connected with its posterior margins. The spinners are small, short, and compact; those of the superior pair are deep blackish red-brown, the inferior pair yellow-brown.

Hab.—Murree, between June 11th and July 14th, 1873.

Genus—*SPARASSUS*, Walck.

89.—*SPARASSUS TIMIDUS*, sp. n.

Immature female: length nearly $3\frac{1}{2}$ lines.

This spider is nearly allied to *Sparassus suavis*, Cambr. (Spid. of Egypt, P. Z. S., 1876, p. 588), resembling it very closely in its colours and markings; the femora of the fore-legs, however, have no trace of the reddish-brown spots found on those of that species, and the eyes are closer together.

The whole of the fore part is yellow, the *cephalothorax* having a slightly radiate appearance owing to the rather darker hue of the normal converging indentations; and the *maxillæ* have a central, dark, reddish-brown patch.

The *eyes* are of almost uniform size, seated on distinct black spots. The interval between the fore-centrals is considerably less than a diameter, and each is very close, but not quite contiguous, to the fore-lateral eye on its side. The interval between those of each lateral pair is rather less than a diameter of the hind-lateral eye; the eyes of the hinder row are equidistant from each other, and the four central eyes form a square whose anterior side is shorter than the other three.

The *legs* are long, slender, furnished with hairs and a few longish fine spines; their relative length is apparently 2, 4, 1, 3. The tarsi and metatarsi have some divergent hairs of uniform length underneath, but scarcely amounting to a scopula; and there is a strong claw-tuft beneath the two terminal claws of the tarsi.

The *abdomen* is of a dull straw-yellow colour. The upper part and sides are marked with red-brown spots and markings; two broken longitudinal lines of these spots on the fore half of the upper side enclose a long wedge-shaped marking, which is followed by a series of somewhat angular spots of the same hue reaching to the spinners. A few whitish cretaceous spots are scattered along the middle longitudinal line of the upper side as well as on the under side.

Hab.—Neighbourhood of Leh, August or September, 1873.

90.—SPARASSUS FUGAX, sp. n.

Immature female: length $2\frac{2}{3}$ lines.

This spider is closely allied to the foregoing, but is of a much duller hue, the yellow portions being suffused with dull brownish. The abdomen is shorter and more convex above; the red-brown spots and markings are more thinly scattered, while the white cretaceous spots are larger and more numerous, and spread over the whole abdomen. The femora, genua, and tibiæ are speckled with small red-brown spots, and the spines are longer. The maxillæ also have no central brown patch. With these differences the general character of the markings is similar to that of *Sparassus timidus*.

Hab.—Murree to Sind Valley, between July 14th and August 5th, 1873.

91.—SPARASSUS FLAVIDUS, sp. n.

Adult female: length 10 lines.

The *cephalothorax* is nearly as broad as long, truncated before and constricted laterally at the caput; the height of the clypeus is nearly equal to twice the diameter of one of the fore-central eyes. Its colour is yellow, tinged with brownish orange, deepening to red-brown on the fore part of the caput; and it is thickly clothed with sandy-grey pubescence.

The *eyes* are in a somewhat crescent form, in two transverse rows, the hinder one the longer and straight, or very nearly so; the front row curved, the convexity of the curve directed forwards. They are of moderate size, and relatively differ but little, those of the fore-central pair being a little the largest; the intervals between those of the hinder row are equal; that between the fore-centrals is more than double that between each and the

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fore-lateral on its side, being near about one diameter. The four central eyes form very nearly a square whose longitudinal is a little greater than its transverse diameter.

The *legs* are long, moderately strong; their relative length appears to be 4, 2, 1, 3. Their colour is yellow, with the tarsi and metatarsi reddish-brown; they are clothed with light sandy hairs and red-brown spines, and there is a rather dense, dark, mouse-coloured scopula beneath the metatarsal and tarsal joints, with a strong claw-tuft beneath the terminal tarsal claws.

The *palpi* are moderately long, yellow, with the under side of the radial and digital joints dark, blackish red-brown; and they are armed with spines, bristles, and hairs.

The *falces* are moderately long, powerful, straight, perpendicular, of a deep, blackish red-brown colour reflecting somewhat of a violet tint, and clothed with sandy hairs and strong dark bristles.

The *maxillæ* are of normal form, their colour is dark red-brown, the inner side at the extremity pale yellow.

The *labium* is similar to the *maxillæ* in colour, with a pale-yellow apex.

The *sternum* is yellow.

The *abdomen* is of a dull straw-yellow hue, clothed with sandy-grey and darker hairs. The genital aperture is red-brown and of characteristic form, and has two round corneous lobes or eminences at its hinder extremity.

Hab.—Yárkand, between the 21st and 27th of May, 1874.

Genus—*PHILODROMUS*, Walck.

92.—*PHILODROMUS CINERASCENS*, sp. n.

Adult male: length rather over $2\frac{1}{2}$ lines.

This spider is nearly allied to *Philodromus fallax*, Westr.; its general hue, however, is of a far more ashy-grey, especially that of the abdomen, whereas *P. fallax* is of a sandy colour, and the characteristic median marking on the fore half of the upper side is truncated at its hinder extremity instead of pointed, as in the present spider; besides which the details of the other abdominal markings are different.

The *cephalothorax* is roundish oval, narrower before than behind, decreasing in width gradually, the lateral marginal constrictions of the caput being slight. The upper convexity is moderate, the sides roundly sloping, and the median part flattish. This part, forming a broad, longitudinal, median band, is of a greyish sandy colour, the sides being suffused with brown, most deeply and distinctly on each side towards the hinder part of the median band. The lateral margins of the cephalothorax are greyish white, and the height of the clypeus is very nearly equal to half that of the facial space.

The *eyes* are small and do not differ greatly in size. The fore-laterals, however, are distinctly the largest. The hinder row is straight, the fore one much the shorter and curved, the curve directed forwards. The interval between the eyes of the hind-central pair is rather greater than that between each and the hind-lateral eye on its side; and that between the fore-centrals is also greater than that between each and the fore-lateral next to it, this latter

interval being equal to the diameter of one of the fore-central eyes; the interval between the eyes of each lateral pair is considerably less than that between the fore- and hind-central pairs, and as nearly as possible equal to that between the eyes of the hind-central pair.

The *legs* are long and moderately strong, but do not differ greatly in length; their relative length is 2, 4, 1, 3. They are of a greyish-sandy colour tinged with brown, minutely speckled with darker brown, and furnished with hairs, bristles, and spines; the *tarsi* and a small portion of the *metatarsi* have a thin scopula on their under sides.

The *palpi* are moderately long, similar to the legs in colour, except the radial and digital joints, which are strongly tinged with brown. The radial and cubital joints are short (the former being the shorter), and are armed with a few strong spine-like, tapering bristles. The digital joint is large, of an elongate oval form, rather pointed before and equal in length to the humeral joint, exceeding that of the radial and digital joints together. The palpal organs are simple, rather the most prominent at their base, with a long, contorted, dark-brown, narrow stripe (probably indicative of an internal duct) on their surface and a strongish, curved, prominent tooth-like spine at their anterior extremity; the radial joint has a very small angular prominence at its extremity on the outer side, and a short, broadish, truncated apophysis underneath.

The *falces* are rather long and slender, straight, and a little directed backwards; their colour is like that of the cephalothorax.

The *maxillæ* and *labium* are of normal form and similar to the falces in colour, the extremities of the *maxillæ*, however, being of a pale-whitish hue.

The *sternum* is heart-shaped, granulose, and of a brownish-yellow colour.

The *abdomen* is oval, of a stone-white colour, speckled thickly with small punctures and minute black specks. The normal longitudinal marking on the fore half of the upper side is of a dark-grey hue, and has a prominent, obtuse point at the middle of each side, and its posterior extremity is pointed; its outer margins and extreme hinder point are also indicated by a few black, and mostly linear, spots. The sides of the upper part are clouded with dark-grey, leaving a pale, median tapering band on the hinder half, and several oblique, white indistinct stripes on the outer margins, where there is also a line of three or four black spots on each side; these lines converge in the direction of the spinners. The sides are rugulose and the spinners short, compact, and tinged with a sandy colour.

The *female* is rather larger than the male, but in colours and markings resembles it. The oblique white stripes on the lateral margins of the upper part are better defined, and consist of more or less confluent spots and elongate blotches. The form of the genital aperture is characteristic.

Hab.—On the road from Tanktze to Chagra and Pankong Valley, between the 15th and 21st of September, 1873; and from Yárkand to Bursi, between May 28th and June 17th, 1874.

93.—PHILODROMUS MEDIUS.

Philodromus medius, Cambr., Spid. Palest. and Syria, Proc. Zool. Soc., 1872, p. 311.

Hab.—One or two immature examples of this spider found at Murree (June 11th to July 14th, 1873) exactly resemble the types found in Palestine.

Genus—*TIBELLUS*, Sim.

Thanatus, C. L. Koch, *ad partem*.

94.—*TIBELLUS PROPINQUUS*, sp. n.

Immature female: length rather more than $2\frac{1}{2}$ lines.

This spider is very nearly allied to *Tibellus oblongus* (Walck.), which it resembles closely in form and colour. In the present species, however, the tibiae and metatarsi of the legs, together with the upper sides of the femora of the first and second pairs, are speckled with minute, dark red-brown spots, while, among a large number of examples of the European species (*T. oblongus*), I can find no trace of this speckling. It is possible that the discovery of the adult males may show that this spotting of the legs, as well as a less definite abdominal marking, is merely a local variation not amounting to a specific distinction.

Hab.—Káshghar, December 1873.

Genus—*THANATUS*, C. L. Koch.

95.—*THANATUS THORELLII*.

Thanatus thorellii, Cambr., Spid. Pal. and Syria, Proc. Zool. Soc., 1872, p. 309.

Hab.—Immature examples were found in the collections made at Yárkand in November 1873, and on the road thence to Bursi, between May 28th and June 17th, 1874.

96.—*THANATUS ALBESCENS*, sp. n.

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

The *cephalothorax* is of a very flattened form; it is as broad as, or broader than, long, truncated behind, and somewhat obtusely pointed at its anterior extremity in the ocular region; the lateral marginal constrictions of the caput are exceedingly slight; it is of a pale dull yellow-brown hue, and has a narrow lateral white margin with a little white venose suffusion above it; the occipital region is also paler than the surrounding surface.

The *falces* are small, straight, nearly perpendicular, like the cephalothorax in colour, at their bases, and paler at their extremities.

The *legs*, *palpi*, *maxillæ*, and *labium* are of a pale dull straw-colour. The legs are rather long and slender. Those of the second pair are distinctly the longest, and the third rather the shortest.

The *eyes* are very small, scarcely differing in size, and seated on round white tubercles in two curved rows, of which the anterior is much the shorter and more strongly curved. The interval between those of each lateral pair is distinctly greater than that between the fore- and hind-central pairs; those of the hind-central pair are a little further from each other than each is from the hind-lateral on its side, while the interval between the four centrals is more than double that between each and the fore-lateral next to it, and just equal to that between each and the hind-central opposite to it. The fore-centrals appear to be very slightly larger than the fore-laterals, and the interval between the fore-central and its nearest fore-lateral eye is but a little more than the diameter of the former.

The *abdomen* is oval, moderately convex above, but a little flattened on its upper side; its colour is stone-white, speckled with very minute blackish points, and with a dull brownish somewhat emarginate lanceolate marking along the middle of the fore half of the upper side, followed by a series of obscure, and almost confluent, diminishing, angular bars of the same hue.

Hab.—On the road from Murree to the Sind Valley, July 14th to August 5th, 1873.

Family—*LYCOSIDES*.

STOLICZKA, genus novum.

Eyes unequal in size; in two transverse, rather widely separated, slightly curved, and nearly parallel rows, the front row much the shorter, and the convexity of the curves directed forwards, the fore-lateral eyes considerably larger than the fore-centrals.

Cephalothorax longer than broad, strongly constricted at the caput on the lateral margins, the fore extremity being truncated and a little broader than the constricted part.

Maxillæ moderately long, strong, broader at their extremity than just above the insertion of the palpi; their outer extremity rounded, the inner one obliquely truncated.

Labium short, convex in front, of a somewhat oval form, truncated at its apex.

Legs moderately long, strong, relative length 4, 1, 2, 3, spinous; and the tarsi are furnished with three claws.

The *abdomen* is rather small, but broader behind than before.

This genus is allied closely to *Nilus* (Cambr., Spiders of Egypt in P. Z. S., 1876, p. 596, pl. ix, fig. 13), but, among other differences, the great disproportion in size between the fore-central and fore-lateral eyes is an essential one.

97.—*STOLICZKA INSIGNIS*, sp. n.

Adult female: length rather over 5 lines.

The *cephalothorax* is clothed with a short sandy-grey pubescence; its colour is deep brown, with a broad longitudinal band and a narrow irregular lateral one, on each side, a little way from the margin, of a much paler, yellow-brown hue. The median band has, on each side, a little way behind the ocular area, a slight enlargement in the form of a small, angular point; this is most conspicuous in young examples, but is traceable in adults as well, and is a strong specific character. The height of the clypeus is equal to the diameter of a fore-lateral eye.

The *eyes* of the hind-central pair are very much nearer to each other than each is to the hind-lateral eye on its side, being separated by no more, or even by less, than a diameter's interval; those of the fore-central pair are rather further from each other than each is from the fore-lateral eye next to it; the length of the front row is as nearly as possible equal to the length of the line formed by either three of the eyes, adjacent to each other, of the hinder row: the hind-lateral eye on each side is equally distant from the hind-central and fore-central eye next to it, forming the apex of an isosceles triangle; and the four central eyes form a quadrangular figure whose longitudinal is much greater than its transverse diameter, and whose anterior side is slightly shorter than its posterior one.

The *legs* do not differ greatly in length; they are of a yellow-brown colour, deepening gradually to deep red-brown on the tarsi. They are indistinctly annulated with a deeper hue; but this annulation is generally lost more or less in adults, being pretty distinct in young examples. The tarsi and metatarsi are furnished beneath with a thin scopula; all the legs are tolerably thickly furnished with hairs, bristles, and spines, and the inferior tarsal claw is very small and sharply bent downwards, being not easy to distinguish in the tuft of hairs which surrounds it; the two upper claws are strong, curved, and armed with about five denticulations.

The *palpi* are short, of a deep red-brown colour, similar to the legs in their armature, and terminate with a curved claw.

The *falces* are tolerably long, strong, perpendicular; their basal half in front is roundly protuberant, smooth, strong, and of a very dark rich red-brown colour, yellowish red-brown at the extremity.

The *maxillæ* and *labium* are rather less deep and rich in colours than the falces.

The *sternum* is roundish-oval, pointed behind and truncate before, and of a reddish yellow-brown colour.

The *abdomen* fits pretty close up to the steepish hinder slope of the cephalothorax; it is broader behind than before, this form becoming intensified in adults that have deposited their eggs. In adults, the abdomen is of a deep-brown colour, palest underneath, and clothed with a short, somewhat sandy-grey pubescence, besides longer prominent hairs; and on the fore-half of the upper side is a yellow, longitudinal, median, somewhat tapering stripe. In immature specimens, the abdomen is yellow-brown, marked with dark-brown, shewing the yellow stripe on the fore-half of the upper side, as well as some angular bars of the same colour between it and the spinners. These are short, compact, the inferior stronger than, but of equal length with, the superior pair. The genital aperture consists of two somewhat roundish openings, one on each side, at the hinder part of an oval prominence.

This spider is an extremely interesting form, and appears to be an abundant species. Some of the examples had large, round, dark-brown lycosiform bags of eggs attached by silken fastenings to their spinners.

Hab.—Murree, June 11th to July 14th, 1873.

Genus—*OCYALE*, Sav.

98.—*OCYALE RECTIFASCIATA*, sp. n.

Immature male: length nearly 6 lines.

The *cephalothorax*, legs, falces, and other fore parts of this spider are of a dull yellow-brown colour. A broad, dark yellow-brown, median band, edged with a marginal border of white hairs, runs throughout, and includes the ocular area. This band is very distinct and its margins are parallel to each other.

The *eyes* are in the ordinary position; the anterior row is equal in length to the interval between the two eyes of the posterior row; it is curved, the curve directed backwards, and its four eyes are small and do not differ greatly in size; the two lateral ones are smallest, and, being each seated in front of a dark tubercle (the tubercle itself being in a straight line with the two central eyes), give to the row the appearance at first sight of being straight, but, as above stated, the row is in reality curved, its eyes being equidistant from each other, and

separated by an interval of less than the diameter of one of the centrals. Those of the middle row are rather larger than the fore-centrals, and form a line nearly equal in length to the intervals between the lateral eyes of the anterior row, and are separated by more than a diameter's interval. Each of them is also equally distant from the fore-lateral and hind-lateral eyes on its side, the interval between these two last being equal to that between the two fore-lateral eyes. The height of the clypeus is just equal to half that of the facial space.

The *legs* are long and slender, but do not differ very greatly in length. Their relative length is 4, 2, 1, 3, and they are furnished with hairs and spines.

The *palpi* are short; the digital joint large, and, not being yet fully developed, tumid; its length is equal to that of the humerus, its fore extremity being considerably drawn out. The radial joint is rather longer than the cubital, and has a not very large, sharp-pointed, tapering apophysis at its fore extremity on the outer side. This apophysis, as well as some strong bristles on the upper side of the joint, were plainly visible beneath the cuticle, the moulting of which would have brought the example to the adult state, in which the palpal organs would be fully developed.

The *maxillæ*, *labium*, and *sternum* are of normal form; the two first of a more yellow-brown than the sternum.

The *falces* are moderately long but not particularly strong, straight but slightly divergent, perpendicular, and a little roundly prominent in profile at their base.

The *abdomen* is of an elongate-oval form, tapering pretty gradually from the fore to the hinder extremity. It is of a dull yellowish whitey-brown colour; the sides are marked with a few scattered, indistinct, brown spots, and a broad, darkish yellow-brown, tapering band runs along the middle of the upper side from end to end, and is edged with a marginal border of white hairs; the edges of this band towards the narrowest (or hinder) extremity are slightly sinuous; the band itself has the appearance of a continuation of that on the cephalothorax. The under side of the abdomen has a broad, median, longitudinal, slightly tapering, whitish band reaching from the spiracular plates to the spinners. These are short, but those of the superior pair are rather longer, though less strong, than those of the inferior pair.

The example above described being immature, the abdomen is very much larger than it would be in the adult state, in which it is probable that the total length of the spider would not exceed $4\frac{1}{2}$ lines.

This spider is very nearly allied to one (not yet described) of a larger size, but almost exactly similar in colours and markings, though of quite a distinct species, received from Ceylon and also from Bombay.

Hab.—Murree to Sind Valley, between July 14th and August 5th, 1873.

99.—OCYALE DENTIFASCIATA, sp. n.

Adult female: length rather more than $4\frac{1}{2}$ lines.

The spider is nearly allied to the foregoing species; it is, however, not only smaller (which may not be a constant character), but the abdominal band is very deeply dentated on its margins, and has a series of brownish-yellow, somewhat angular markings along its middle. The sides of the abdomen are irregularly, but extensively, covered with almost confluent brown markings, leaving, however, next to the upper side, a tolerably distinct

dentated, pale dull yellowish-brown band slightly spotted with brown. The *cephalothorax* has a median longitudinal band edged with white hairs like that of *O. rectifasciata*.

The *eyes* are in a similar position to those of that species, but at the same time are rather more separated from each other.

The *legs* are rather long, of a dull, darkish yellow-brown colour, armed with spines; and their relative length appears to be 4, 2, 1, 3.

The *falces* are similar to the last species in form and size, and are of a dark shining yellow-brown, deeper in hue than the legs.

The *maxillæ* are yellow-brown, palest at the extremities, and the *labium* is of the same colour, with a pale apical margin.

The *sternum* is yellowish, with a distinct, broadish, yellow-brown marginal border, and is clothed with coarse grey, and a few dark-brown, hairs.

Hab.—Murree to Sind Valley, between July 14th and August 5th, 1873.

Genus—*TROCHOSA*, C. L. Koch.

100.—*TROCHOSA RUBIGINEA*, sp. n.

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

It is not without considerable hesitation that I have included this very interesting spider in the genus *Trochosa*. It is probable that future collectors will discover other species presenting similar special peculiarities in the position of the eyes, joined to the rather short, but strong, unattenuated legs of the present spider; in which case it might become necessary to form a separate genus, or sub-genus, for their reception.

The *cephalothorax* is oval, broad, and truncate at its fore extremity; the marginal lateral constrictions of the caput are slight, and the height of the clypeus is at least equal to, or even exceeds, double the diameter of one of the central eyes of the front row. Its colour is yellowish, with a narrow marginal band, and two broad longitudinal lateral bands, of a rusty red-brown hue, leaving a rather indistinct, median, tapering, yellowish band strongly constricted near the occiput, and having a large part of its surface along the middle line suffused with rusty red-brown, and containing towards its hinder extremity the thoracic indentation, which is marked by a fine, deep red-brown line: the middle of each side is occupied by a longitudinal, well-defined, but not very broad, yellow band. The fore part of the area enclosed by the middle and posterior rows of eyes is of a dark reddish-brown colour; the hinder part of this patch contains two oval, parallel, yellowish markings. Sometimes the slender red-brown lines defining the outer sides of these oval markings are obsolete, leaving a short, dark red-brown stripe, ending a little way behind the posterior row of eyes, its termination, more or less, laterally dilated. The broad lateral rusty-brown bands are traversed by numerous deep red-brown lines, all radiating or converging to the thoracic indentation. The surface of the cephalothorax is covered with yellow-grey pubescence, and there are numerous blackish bristles on the upper part and sides of the caput.

The *eyes* are in the usual three rows—4, 2, 2; the central pair of the first row are larger than the laterals, and are divided by an interval exceeding a diameter, and each is very near, but not quite contiguous, to the lateral on its side; the front row is very slightly, if anything, shorter than the second; the eyes of the second row are, if anything, slightly smaller than those of the third row, those of both the second and third rows being very considerably

larger than the eyes of the fore-central pair. The distance between each eye of the second row and the lateral of the first row opposite to it is equal to the diameter of the former. The length of the third row is double that of the second, and the interval between these two rows is double that between the first and second.

The *legs* are rather short, strong, tapering, but not attenuated at the extremities; they are of a yellowish colour, pretty densely clothed with hairs, armed with a few not very strong spines, and annulated with rusty red-brown, most distinctly on the upper side of the femora; their relative length is 4, 1, 2, 3, but the difference is not great.

The *palpi* are tolerably long, and similar in colour and armature to the legs.

The *falces* are moderate in length and strength, straight and perpendicular; they are of a yellow colour, with two longitudinal red-brown lines at their base, and are furnished with numerous bristles in front.

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

The *sternum* is oval, truncated before, of a deep rusty red-brown colour, bordered with a broad yellow margin, and with a median, longitudinal, sharp-pointed, yellow stripe at its fore extremity.

The *abdomen* is of an oblong-oval form, broadly, but rather roundly, truncated at its fore extremity, and pretty densely clothed with greyish-yellow and other hairs. The upper part and sides are of a dark rusty-reddish colour, freckled with small, pale-yellowish spots. The fore part of the upper side has the normal longitudinal marking of an orange-yellowish colour, slightly margined with deep red-brown and rather bluntly pointed at its hinder extremity: this marking is rather broadest just behind the middle, and on each side of the broadest (or subangularly prominent) part is a short, orange-yellow, oblique stripe: and following the hinder extremity of the marking is a series of oblique, rather elongate, opposed, oval markings of a similar colour in pairs, each oval marking containing a small but distinct central red-brown spot: the two lines of these oval markings converge towards the spinners, but become obsolete before they reach these parts. They evidently represent the normal angular bars or chevrons. The under side is dull orange-yellow, with a longitudinal median rusty band.

Immature males resembled the females in colour and size.

Hab.—This spider appears to be pretty common. Its localities are Yárkand and neighbourhood, November 1873; Káshghar, December 1873; and route from Yárkand to Bursi, between May 28th and June 17th, 1874.

101.—TROCHOSA HEBES, sp. n.

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

This spider, which is of the *Trochosa picta* group, is very closely allied to *Arctosa amylacea*, C. L. Koch, which it resembles in size and in the general character of its markings, but it is not nearly of so bright a hue; and the form of the genital aperture of the female is quite distinct. I have only been able to compare the females of the two species, not possessing a male of *A. amylacea*.

The *cephalothorax* is broad-oval behind, and somewhat drawn out forwards, though with but slight lateral constrictions on the margins of the caput; its colour is brownish-

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yellow, with a dentated marginal band, and a broader lateral strongly dentated one, of a dark-brown colour on each side, leaving a large central star-shaped, or radiated, brownish-yellow marking. The ocular area is dark-brown, and the whole surface of the cephalothorax is pretty thickly clothed with hairs, many among which are prominent, dark brown, and of a bristly nature.

The *eyes* are grouped as in *T. picta*. Those of the hinder row are smaller than those of the middle row, but considerably larger than the central pair of the front row; the eyes of the middle and hinder rows form a quadrangular figure whose posterior side is not greatly longer than the anterior one, the length of the sides being apparently equal to that of the posterior side. The anterior row of eyes is, if anything, slightly shorter than the middle row, and the interval between the eyes of its central pair is larger than that between each and the lateral eye next to it, to which last it is very close, though not quite contiguous. The height of the clypeus is at least equal to twice the diameter of one of the central eyes of the front row.

The *legs* are moderately long and tolerably strong, particularly the femoral joints; they are of a dark-yellowish colour with dark-brown annuli, and are thickly clothed with hairs and long prominent slender bristles, those of the third and fourth pairs being armed with spines.

The *palpi* are rather short, hairy, and similar in colour and markings to the legs. The radial joint is a little shorter, but of equal strength with the cubital; the digital joint is dark brown at its base, paler at the extremity; it is long and narrow, being only a little broader at its basal part than the radial joint; its length is equal to that of the radial and cubital joints together; the palpal organs are small and simple, being very like those of *T. picta*.

The *falces* are long, moderately strong, straight, perpendicular, and of a deep brown colour.

The *maxillæ* and *labium* are of normal form; their colour is yellowish-brown; the extremities of the former and the apex of the latter being of a paler hue.

The *sternum* is oval, hairy, and of a dark yellow-brown colour.

The *abdomen* is rather broader behind than in front; it is hairy and of a brownish-yellow colour; the markings, which are of the general *Lycosa* type, and almost exactly similar to those of *T. picta*, are delineated by dark blackish-brown lines and spots. The under side is also more or less marked with the same.

Hab.—Yárkand and neighbourhood, November 1873; Yangihissár, April 1874; Yárkand, between 21st and 27th May 1874; hills between Sirikol and Aktalla, between 8th and 18th May 1874; route from Yárkand to Bursi, between May 28th and June 17th, 1874.

102.—TROCHOSA PROPINQUA, sp. n.

Adult female: length just over 5 lines.

This spider is very closely allied to *T. ruricola*, De Geer, but is, I think, certainly of a distinct species.

The *cephalothorax* is broader behind and narrower before than in *T. ruricola*. The broad, lateral, brown bands, instead of stopping behind the hinder row of eyes, run through and include the laterals of both the middle and hinder rows. The median longitudinal yellow band is similarly constricted at the occiput; but is broader behind that point, and more radiated than in *T. ruricola*; and the two longitudinal brown stripes on the fore part of this band are confluent with the sides of the brown lateral bands.

The *eyes* occupy a larger area, and are of a pale, dull, yellowish-brown hue, being much paler than in the other species mentioned.

The *legs* are rather shorter in proportion, and are pretty distinctly annulated with brown; whereas they have rarely any trace of annulation in *T. ruricola*.

The *abdomen* is of a much darker hue, being of a blackish yellow-brown colour, the normal median longitudinal marking on the fore half of the upper side is of a brighter orange-yellow, and is margined by a much more distinct black border. The form of the genital aperture differs but very slightly. The under side of the abdomen is suffused with dark brown, and on each side is a marginal border of a darker black-brown.

Hab.—Sind Valley, between 5th and 13th August, 1883.

103.—TROCHOSA ADJACENS, sp. n.

Adult female: length just over 5 lines.

This spider is very closely allied to *T. terricola*, Thor., differing from it in about the same degree as *T. propinqua* does from *T. ruricola*, De Geer. It is rather a smaller spider, and the cephalothorax appears also to be of a rather broader form, and the whole spider is of a much duller hue and less distinctly marked; the bands on the cephalothorax are scarcely discernible; the whole being of a dull yellowish-brown colour, pretty densely clothed with short, greyish-sandy pubescence, and with some indistinct, darker brown, radiating stripes indicating the normal indentations.

The *eyes* of the front row are much larger than in *T. terricola*, and are very nearly equal in size to those of the hinder row; these last, however, being much smaller than the corresponding ones in that species.

The *legs* in the present spider have no trace whatever of annulation, while those of *T. terricola* are frequently annulated with brown, though never very distinctly, and, in general, chiefly on the femora.

The markings on the abdomen are very similar, as also is the form of the genital aperture, though a slight difference in this respect is observable.

Hab.—Yangihissár, April 1874.

104.—TROCHOSA SABULOSA, sp. n.

Adult female: length 10 lines.

The *cephalothorax* of this fine spider is strongly compressed laterally on the margins of the caput, and the lateral slopes are much depressed; the caput, however, is broad at its lower margin and tolerably massive above. Its colour is reddish yellow-brown, totally obscured by a dense clothing of short, pale sandy-grey pubescence, leaving but very slight and broken traces of the ordinary radiating indentations of a darkish brown colour. The height of the clypeus is equal to the diameter of one of the fore-central eyes.

The *eyes* are in the ordinary position, and occupy an area whose length and breadth are, as near as possible, equal; the front row is distinctly longer than the middle one; its central pair of eyes are much larger than the laterals, though distinctly smaller than those of the hinder row, and are separated by an interval less than a diameter, but double as great as that which divides each from the lateral next to it; those of the middle row are divided

by, as nearly as possible, a diameter's interval; and each is separated from the eye of the posterior row on its side by an interval of about one and a half diameters.

The *legs* are moderately long, strong, and tapering, but not attenuated; their relative length is 4, 1, 2, 3, and their colour is of a pale-yellowish hue, deepening to brownish-red; the metatarsi and tarsi are pretty densely clothed with sandy-grey pubescence, mixed with other darker hairs and bristles, and armed (chiefly on the third and fourth pairs) with spines; the under sides of the genua and the fore extremities of the tibiæ are black-brown; the under sides of the metatarsi and tarsi of the first and second pairs, and of the metatarsi of the third and fourth pairs, as well as of the digital joint of the palpi, are furnished with a dense scopula of black-brown hairs.

The *palpi* are similar in colour to the legs.

The *falces* are long and powerful, straight, perpendicular, the profile-line convexly curved, of a deep black-brown colour, thickly clothed with sandy-grey and brown hairs and bristles.

The *maxillæ* and *labium* are of normal form, and bristly; their colour is red-brown, the extremities of the former and the apex of the latter having a pale-yellowish tinge.

The *sternum* is oval, truncate at its fore extremity, of a dark brownish-black colour, clothed with sandy-grey pubescence.

The *abdomen* is oval; it projects well over the base of the cephalothorax, and is considerably convex above; it is densely clothed with sandy-grey, black, whitish, and brown hairs. On the upper side, the ordinary *Lycosa* pattern is indistinctly visible, being indicated by the scattered markings formed by the darker and whitish hairs. The normal elongate marking on the fore half is truncate at its posterior extremity, and a prominent subangular point on each side, about the middle, is indicated by a strong blackish spot; on the hinder half, the only markings traceable (besides a generally thin sprinkling of small blackish spots over the whole of the upper part and sides) are two rows of obscure spots of whitish hairs, converging towards the spinners; the whole of the under side, including the spiracular plates and the genital aperture, is black.

The male is smaller, but resembles the female in colours and markings. The radial joint of the palpus is considerably longer than the cubital; the digital joint is red-brown, and a little longer than the radial; the palpal organs present no very marked peculiarity of structure.

Hab.—Yangihissár, April 1874; between Yangihissár and Sirikol, March 1874; road across the Pamir from Sirikol to Panja and back, between April 22nd and May 7th, 1874; and Yárkand, between 21st and 27th May 1874.

105.—TROCHOSA APPROXIMATA, sp. n.

Adult female: length $5\frac{1}{2}$ lines (nearly).

This spider is almost exactly like *T. sabulosa* in colour and markings, the grey hue, however, being less marked; but it may readily be distinguished by its comparatively small size, and by the under side of the abdomen being of a dull sandy hue, instead of black, as in *T. sabulosa*. The sides of the cephalothorax also appear to be more depressed, and the fore-central eyes of the front row are more nearly equal in size to those of the hinder row,

The genital aperture is very minute, being of a transverse narrow-oval form divided longitudinally by a septum.

Hab.—Yárkand, November 1873.

106.—*TROCHOSA RUBROMANDIBULATA*, sp. n.

Immature male : length $5\frac{1}{2}$ lines.

This spider is nearly allied to both the foregoing species, but may easily be distinguished by the following characters. The general hue is less grey than in *T. sabulosa*, and the darker markings on the abdomen are more distinct; the normal longitudinal marking on the fore half of the upper side is of a dark brown hue, with some black spots and markings on its outer margins: there are also some black spots alternating with the pale spots on the hinder half (these latter spots not being so white as in *T. sabulosa*). The under side of the abdomen is jet-black, distinctly and abruptly enlarged laterally from near the middle to the spinners, and there is a distinct short black bar on each side near the base of the spinners.

The *legs* are unicolorous, having no trace of the black suffusion underneath the fore extremity of the tibiæ, except very slightly beneath those of the fourth pair.

The *eyes* of the fore-central pair are smaller than in either *T. sabulosa* or *T. propinqua*; and a striking character, which distinguishes it at a glance from both, is the dense clothing of scarlet (somewhat squamose) hairs on the front of the falces.

It is probably also a smaller spider than *T. sabulosa*, though this is not certain, as the only example examined was not adult.

Hab.—Murree to Sind Valley, between July 14th and August 15th, 1873.

107.—*TROCHOSA LUGUBRIS*, sp. n.

Adult male : length nearly 5 lines.

The *cephalothorax* is of a dark, rich red-brown colour, thickly clothed with silky, light grey hairs disposed in a broad longitudinal and narrower marginal bands,—the sides being clothed with black hairs, forming thus alternate bands of white and black hairs; the caput is considerably produced, and constricted on the lateral margins. The height of the clypeus is no more than, if quite so much as, the diameter of one of the fore-central eyes.

The *eyes* are in the ordinary position; the length of the front row is perceptibly longer than that of the middle row, whose central eyes are larger than the laterals, though much smaller than those of the hinder row; these last are rather smaller than those of the middle row, and form a line very nearly indeed equal to that formed by each of them, and that one of the middle row on its side; the interval between those of the middle row a little exceeds a diameter; the eyes of the hinder and middle rows thus form very nearly a square whose anterior side is the shortest.

The *legs* are tolerably long and strong, though rather attenuated at their extremities. They are of a yellowish, dark red-brown colour; the femora being much the darkest, and clothed with grey hairs, not only of a pubescent nature, but also with numerous long, slender, prominent ones like those on the legs of *Tegenaria* and *Argyroneta*. They are also armed with strong spines; the tarsi are furnished underneath with a thin scopula. Their relative

length is 4, 1, 2, 3, but the difference between those of the first and fourth, and of the second and third pairs, respectively, is not great.

The *palpi* are tolerably long and strong, similar to the legs in colour and hairy clothing; the humeral joint has three spines of equal length close together in a transverse line on the upper side at the fore extremity. The radial joint is longer than the cubital, and the digital joint, which is darker than the rest, slightly exceeds in length the radial joint, whose width it considerably exceeds at the base, its fore extremity being rather attenuated. The palpal organs are rather simple, with a prominent subconical hook-pointed process, about the middle of their outer side.

The *falces* are long, powerful, straight, perpendicular, of a deep black-brown colour; clothed with grey pubescence and long dark bristly hairs.

The *maxillæ* and *labium* are of normal form, and of a deep blackish red-brown colour; the *sternum* is of the same colour, oval and truncated before; these parts are furnished with strong dark bristles.

The *abdomen* is of moderate size and convexity above; the upper part and sides are dark brown, thickly clothed with grey hairs, shewing some curved transverse lines, formed by these hairs on the hinder half. The whole of the under part, extending also a little way up the sides, is jet-black.

Hab.—On the road across the Pamir from Sirikol to Panja and back, between April 22nd and May 7th, 1874.

Genus—*TARENTULA*, Sund.

108.—*TARENTULA IRASCIBILIS*, sp. n.

Immature female: length $3\frac{1}{2}$ lines.

The *cephalothorax* is oval, the caput a little produced and rather strongly constricted on the lateral margins; the fore margin is broad and truncated, and the lower part of the sides rather gibbous; it is of a yellow colour tinged with orange-brown; on the upper part of each side is a broad longitudinal darkish yellow-brown band traversed by still darker converging lines showing the normal indentations; the lateral margins are also marked with some broken irregular brown spots and markings. The ocular area is blackish-brown, and the height of the clypeus is nearly about equal to the diameter of one of the fore-central eyes; the surface of the cephalothorax is thinly clothed with a greyish silky pubescence.

The *eyes* are in the ordinary position, forming an area as long as it is broad, though narrower in front than behind; the eyes of the middle and posterior rows are very large, and appear to be very nearly, if not quite, equal in size; the interval between the middle ones is equal to, or a little more than, a diameter, being less than that between each and that of the hinder row opposite to it; the length of the hinder row is greater, though not very much, than that of the middle row, which is also, if anything, a very little longer than the front row; the eyes of this last are small and equally separated; those of the central pair being but little larger than the laterals.

The *legs* are tolerably long and strong; their relative length being 4, 1, 2, 3; they are yellow, annulated, though not very distinctly, with broken and angular brown annu-

lations; they are furnished with hairs and spines, but have no scopula beneath the tarsi and metatarsi.

The *palpi* are similar in colour and markings to the legs.

The *maxillæ*, *labium*, and *sternum* are of ordinary form, and of a yellow-brown colour. The *falces* are also of a similar colour, rather long, powerful, and perpendicular, and furnished with a few bristles in front.

The *abdomen* is a little wider behind than in front, its colour is yellowish, clothed, but not very densely, with a few greyish, and a few longer, coarser brown hairs; there is, along each lateral margin of the upper side, a broad dentated brown band, from the lower side of which two or three oblique, but very regular, rows of brown spots traverse the sides; along the middle of the fore half is the normal marking of a deep brown colour edged with black, with a prominent angular point on each side, and truncate at its posterior extremity, which merges in the first of a series of broadish, angular, brown chevrons; these decrease in size as they approach the spinners; the point of each chevron, which is (as usual) directed forwards, touching the inside of the angle of the chevron in front of it. The under side is immaculate.

Hab.—Neighbourhood of Leh, August or September, 1873.

109.—TARENTULA INIMICA, sp. n.

Adult female: length rather more than 6 lines.

The *cephalothorax* is yellow-brown, with a broad longitudinal band, on each side, of a darker hue; the whole covered with a short sandy-grey pubescence. The clypeus is low, not much exceeding in height the diameter of one of the fore-central eyes. The eyes of this row are placed on somewhat of a ridge, making this part look prominent when seen in profile. The *facies* is low.

The *eyes* occupy an area about equal in length and breadth. The front row is distinctly shorter than the middle one; its eyes are very small; the centrals are but slightly, if at all, larger than the laterals, and the interval between them is greater than that between each and the lateral eye on its side. The eyes of the middle row are much larger than those of the posterior one, and are separated by slightly over a diameter's interval; the hinder row is considerably longer than the middle one.

The *legs* are tolerably strong, but not very long; those of the fourth pair are the longest, the rest not varying very much; they are of a yellow-brown colour, and are furnished with hairs and spines; the tarsi of the first and second pairs have a very thin scopula on their under sides.

The *palpi* are short, but similar in colour to the legs.

The *maxillæ* and *labium* are of a rich deep red-brown colour; the former have their extremity, and the latter has its apex, pale yellow.

The *sternum* is oval, somewhat truncated at its anterior extremity, and similar in colour to the *maxillæ*.

The *abdomen* is of a short-oval form considerably convex above; it is of a reddish-brown colour mottled with much clearer reddish spots; the normal longitudinal macula on the fore half of the upper side is large, considerably prominent past the middle on each side, and truncated at its posterior extremity; it is of an obscure brown hue, indistinctly margined

with darker brown; on the hinder half is a median longitudinal series of strongish, but not very conspicuous, yellowish-red, angular bars or chevrons. The under side is dark, of a rather sooty-brown hue; the form of the genital aperture is distinct and characteristic; the hairy clothing of the abdomen had been entirely denuded.

Hab.—On the road across the Pamir from Sirikol to Panja and back, between April 22nd and May 7th, 1874.

Genus—*LYCOSA*, Latr. *ad partem*—*LYCOSA*, Thor.

110.—*LYCOSA CONDOLENS*, sp. n.

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

The general form and appearance of this spider are like those of *Lycosa agricola*, Thor. and some other closely-allied European species. The *cephalothorax* is deep brown, in some cases approaching to black, with a narrow median, and, on each side, a submarginal brownish-yellow stripe; the median stripe is often very indistinct, and seldom runs (towards the eyes) beyond the occipital region, certainly not reaching nearly to the ocular area, and the marginal stripes are irregular, or somewhat dentated, on their edges. These stripes are clothed with pale hairs. The ocular area is black, and the clypeus, which rather exceeds in height the diameter of one of the fore-central eyes, is yellow.

The *eyes* are in the ordinary position; the foremost row is distinctly shorter than the middle one, and its eyes are very small; those of the central pair being scarcely larger than the laterals, and the interval between them is double that between each and the lateral eye on its side. The eyes of the middle row are considerably farther apart than a diameter's interval,—in fact, nearly equalling two diameters; being equal to the interval between each and the lower margin of the clypeus at its nearest point. The hinder row is longer than the middle one, and its eyes are smaller than those of that row.

The *legs* are long, rather attenuated, furnished with hairs, bristles, and spines; they are of a brownish-yellow colour, the femora and tibiae annulated and marked with black-brown and yellow-brown; the femora are often more or less completely suffused with black-brown. This is only, however, the case with some adult males, and is probably owing to their having been longer in the adult state; the legs of the fourth pair are the longest, and those of the third pair slightly the shortest.

The *palpi* are moderately long; the humeral joint is nearly black, the cubital and radial joints yellow; the latter is the longest, and black on the whole (more or less) of the under side; the upper side is furnished with white hairs, mostly close to the fore extremity; the digital joint is of tolerable size, round, oval, and black behind, pointed and of a paler brownish hue in front. The palpal organs are characteristic in their structure, though they do not present anything very remarkable in form; there is, about their middle, a not very prominent, somewhat crescent-shaped, process, one of whose limbs is truncated, and the other, the shorter, is blunt-pointed.

The *maxillæ* are dark reddish brown, yellowish at their fore extremities.

The *labium* is also of a similar colour,—yellowish at the apex.

The *falces* are moderately long, not particularly strong, straight, perpendicular, of a brownish-yellow colour, more or less clouded with deep brown.

The *sternum* is oval and nearly black.

The *abdomen* is black-brown on the upper side; the normal longitudinal marking on the fore part is of a reddish yellow-brown hue, blunt-pointed at its posterior extremity, and followed towards the spinners by a series of short, angular bars of the same colour; these bars (often broken at the angle) thus consist of two oblique, opposed, oblong-oval markings, each of which has a black spot in the middle; there is also on each side of this series, towards the margin of the upper side, a longitudinal series of pale spots formed by small tufts of whitish hair; the sides are mottled with yellow-brown, and the under side is yellow-brown marked with a median, and two (lateral) longitudinal dark blackish stripes, rendered more or less indistinct by the pale (among other) hairs with which the surface of the abdomen is generally covered.

The female is paler-coloured, and the markings are more distinct than in the male, preserving, however, the same essential characters. It seems to be an abundant species.

Hab.—Yárkand and neighbourhood, November 1873; Káshghar, December 1873; between Yangihissár and Sirikol, March 1874; Yangihissár, April 1874; on the road across the Pamir, from Sirikol to Panja and back, between April 22nd and May 7th, 1874; hills between Sirikol and Aktalla, between 8th and 18th May 1874; road from Yárkand to Bursi, between May 28th and June 17th, 1874.

III.—LYCOSA FORTUNATA, sp. n.

Adult male: length 3 lines.

This spider is very nearly allied to *Lycosa condolens*; but it is rather smaller, and generally lighter-coloured. The following points of distinction will serve to distinguish it readily.

The central yellow band on the *cephalothorax* is much broader, more distinct, reaches more nearly to the eyes, behind which it is strongly constricted, being broader and somewhat radiated at the thoracic junction, immediately behind which it is again constricted; the lateral yellow stripes are broken, and scarcely extend more than half way to the fore extremity. The height of the clypeus is a little greater, and the two central eyes of the front row are larger in proportion to the laterals.

The *legs* have the femora and tibiæ in general obscurely annulated, but the former are not black as in *L. condolens*. The radial joints of the palpi are longer in proportion to the length of the cubital than in that species, and are a little clouded with brown towards their fore extremities, which are furnished thickly with long, black, bristly hairs, particularly underneath and on the inner sides. The fore part of the digital joint is less attenuated, and it is clothed thickly with black hairs, and terminates with a strongish curved claw; the palpal organs differ also in structure; they are more prominent at their hinder extremity, and the process corresponding to that described in reference to *L. condolens* as somewhat "crescent-shaped" is much larger and more prominent; its larger limb being strongly curved. The abdominal markings are very similar, but the usual one on the upper side, at the middle of the fore part, is distinctly margined with black.

The female resembles the male in colours and markings, but the annulations of the legs are darker and more distinct.

This spider appears to be equally abundant with *L. condolens*.

Hab.—Neighbourhood of Leh, August and September 1873; Tanktze to Chagra and Pankong Valley, 15th to 21st September 1873; Yárkand and neighbourhood, November 1873;

Káshghar, December 1873; between Yangihissár and Sirikol, March 1874; Yangihissár, April 1874; on the road across the Pamir from Sirikol to Panja and back, April 22nd to May 7th, 1874; hills between Sirikol and Aktalla, 8th to 18th May 1874; Yárkand, 21st to 27th of May 1874; road from Yárkand to Bursi, May 28th to June 17th, 1874.

112. LYCOSA STELLATA, sp. n.

Adult female: length from 4 to $5\frac{1}{2}$ lines.

The *cephalothorax* of this distinct spider is of a brown colour, and clothed with a short sandy-grey pubescence; there is a large, very distinct, star-shaped or radiate yellowish marking at the occiput, divided longitudinally by a dusky red-brown line, strongish at each end, and produced before into an obtuse, somewhat transverse, oblong marking a little way behind the ocular area, notched at its fore-margin, and often marked with the bifid continuation of the bisecting line on the stellate portion; there is also a pale yellowish submarginal, and generally broken, band on each side; these markings, seen very distinctly on immature examples, are more or less obscured by the pubescence in adult specimens.

The *eyes* of the foremost row form a line distinctly shorter than the middle row, and its central pair are distinctly larger than the laterals, and are divided by an interval larger than that which separates each from the lateral eye on its side; the height of the clypeus very little, if at all, exceeds the diameter of one of the fore-central eyes. The ocular area appears to be broader behind than it is long, and the eyes of the middle row are considerably larger than those of the hinder one, forming a line nearly about equal to that formed by the laterals of these rows.

The *legs* are rather long, tolerably strong, of a yellowish hue, and pretty distinctly annulated with dark brown; they are furnished with hairs and spines, and the colour and markings are liable (in adults) to be obscured more or less by a rather dense, short, sandy-grey pubescence; their relative length is 4, 1, 2, 3.

The *palpi* are similar in colour and armature to the legs.

The *falces* are long, strong, straight, and perpendicular: they are of a reddish-yellow-brown colour—red-brown at the base and extremities in front, and furnished with numerous long, prominent bristles.

The *maxillæ* are yellow-brown, and the *labium* deep brown with a pale-yellowish apex.

The *sternum* is deep brown, clothed with grey pubescence.

The *abdomen* is of a blackish-brown colour on the upper side. The normal longitudinal marking on the fore half is indicated by broken, surrounding, submarginal, reddish-yellow markings, and its posterior extremity is truncated: following it is a series of opposed, oblique, yellowish markings, these being the broken portions of the normal angular bars, which are, however, sometimes perfect; and each bar contains a black spot: outside these angular bars is, on each side, a longitudinal row of yellowish spots. The sides are brownish-yellow, spotted and marked with black-brown; and the under side is also brownish-yellow, without any markings. The genital aperture is of a characteristic form, and its colour is red-brown.

The male resembles the female in colours and markings, but is rather smaller.

Hab.—Yárkand and neighbourhood, November 1873; Káshghar, December 1873; Yangihissár, April 1874; on road across the Pamir from Sirikol to Panja and back, April 22nd to May 7th, 1874; hills between Sirikol and Aktalla, 8th to 13th of May 1874; Yárkand, 21st to 27th May 1874; Yárkand to Bursi, May 28th to June 17th, 1874.

From the localities recorded, this spider, though perhaps less numerous, appears to be distributed nearly equally with the two foregoing species, and all three are probably found together. The present species is very nearly allied to *L. injucunda*, Cambr., found in Egypt, but quite distinct.

113. *LYCOSA CREDULA*, sp. n.

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

This spider is very nearly allied to *Lycosa nigriceps*, Thor., which it resembles closely in form and general appearance, but may be distinguished by the absence of any constriction of the median, longitudinal yellow band on the *cephalothorax*, and by the normal longitudinal marking on the fore half of the abdomen being sharp-pointed instead of truncated at the posterior extremity.

The *cephalothorax* is of a bright yellow colour, somewhat obscured by a greyish pubescence, which probably soon becomes more or less denuded; the sides are narrowly edged with black, a very little way above which edging is a narrow, dark, yellow-brown, sub-marginal stripe, with a broad lateral band of the same colour along the upper part of each side, leaving a median, longitudinal yellow band of equal width throughout, and scarcely wider than the lateral bands of the same hue. The ocular area is black.

The *eyes* are in the usual position; the front row is distinctly shorter than the middle one, and its two central eyes are placed on a small prominence; these two are larger than the laterals of the same row, and the interval between them is greater than that between each and the lateral on its side; the eyes of the middle row are much the largest, and form a line shorter than those of the third row, though this latter is not so long, proportionately, as in some other groups of *Lycosa*. The four eyes of the middle and hinder rows form a square whose posterior side is longer than the rest. The height of the clypeus is more than double the diameter of one of the fore central eyes.

The *legs* are moderately long, and rather slender; they are of a yellow colour, indistinctly marked and annulated on the femora with yellowish-brown, and are clothed with hairs, spines, and grey pubescence. Their relative length is 4, 1, 2, 3.

The *palpi* are yellow, marked with brown.

The *falces* are rather long, slender, straight, and directed backwards; their colour is yellow, slightly marked longitudinally with brown.

The *maxillæ* and *labium* are yellowish, tinged with brown.

The *sternum* is oval, rounded before, and pointed behind; its colour is black-brown, irregularly margined with yellow, and a median longitudinal stripe of the same colour extends from the fore extremity rather more than half-way to the hinder one.

The *abdomen* is dark-brown above, spotted minutely and striated with yellow; a tapering dentated yellowish median band runs throughout the upper side to the spinners; the fore part of this band contains the normal marking, distinctly defined by a dark-brown line, and sharp-pointed at its hinder extremity; in the hinder half of the dentated band may be indistinctly traced the usual series of angular bars or chevrons, each of which is charged with two small brown spots in a transverse line. The sides of the abdomen are irregularly striated with dark-brown on a yellow ground, and the under side is paler, with still fewer brown markings.

The genital aperture is not large, but is, as usual, of characteristic form.

Hab.—Hills between Sirikol and Aktalla, 8th to 13th of May 1874; road from Yárkand to Bursi, May 28th to June 17th, 1874.

114. *LYCOSA VINDEX*, sp. n.

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

This spider is very closely allied to *Lycosa credula*, but it is of a shorter, stouter form, and the colours are of a generally duller hue. The median longitudinal yellow band on the *cephalothorax* is broader, distinctly constricted at the occiput, and enlarged at the thoracic indentation. The ocular area is black, with a geminated reddish-yellow spot between the eyes of the hinder row; the lateral brown bands are more distinctly traversed by darker lines radiating towards the thoracic indentation. The clypeus is lower, not exceeding in height two fore central eyes' diameter; the legs are entirely annulated (though not very distinctly excepting the tarsi), and they are also longer than those of *L. credula*.

The *sternum* is very similar in its markings; but the normal marking on the fore half of the upper side of the abdomen is less distinctly marked, and is blunt-pointed at its hinder extremity; the usual angular bars which succeed it are longer, and, with the marking on the fore part, are of a reddish yellow-brown hue; this is also the prevailing tint of the upper side, of which the rest is marked and striated with dark-brown; the under side is of a dull-yellowish hue, without any markings; and the genital aperture is of a distinct and characteristic form.

Hab.—Yárkand, November 1873.

115. *LYCOSA VINDICATA*, sp. n.

Adult female: length 2 lines.

This spider is exceedingly closely allied to *L. vindex*, but I am induced to record it as a distinct species, not only on account of its smaller size, but because the median longitudinal yellowish band on the *cephalothorax* is narrower, and has no constriction at the occiput, nor any lateral enlargement at the thoracic indentation; the submarginal lateral brown stripe is also more distinct and continuous, and the genital aperture differs a little in its form. In most other respects it resembles *L. vindex*, though the legs are more distinctly annulated. Its smaller size, shorter, stouter form, and reddish-brown hue of the paler markings on the abdomen, as well as the far more distinctly and completely annulated legs, and lower clypeus distinguish it readily from *L. credula*.

Hab.—Murree, June 11th to July 14th, 1873, and between Yangihissár and Sirikol, March 1874.

116. *LYCOSA PASSIBILIS*, sp. n.

Adult male: slightly over 3 lines.

The *cephalothorax* is of a deep brown colour, with a broadish longitudinal median band, and two lateral, narrower, sub-marginal ones slightly paler, and clothed with greyish hairs, with which, indeed, the rest of the cephalothorax is, though more thinly, covered.

The *eyes* occupy an area longer than broad; the front row is shorter than the middle one, and its two central eyes are placed on a slight prominence, and are larger than the lateral ones; the four being very nearly, if not quite, equally separated from each other, and the height of the clypeus is greater than the diameter of one of the fore central eyes, but not as much as two diameters. The eyes of the middle row are much larger than those of the hinder one, and, with them, form a square whose posterior side is the shortest.

The *legs* are long, attenuated at the extremities, of a deep reddish-brown colour, furnished with hairs and spines, and clothed with greyish pubescence.

The *palpi* are rather long and strong, and similar in colour to the legs; the radial and cubital joints are of equal length; the digital joint is of tolerable size, and nearly equal in length to the radial and cubital joints together; it is oval behind and rather attenuate before. The palpal organs are not very complex, but from the middle there projects a short but prominent process with three prominent divergent points, the middle one being the longest and strongest. Like the legs, the palpi are covered more or less with greyish hairs.

The *falces* are moderately long, but not very strong, slightly divergent and directed backwards: their colour is deep rich reddish black-brown, with a reddish-yellow broad longitudinal stripe on the inner side at the fore extremity.

The *maxillæ* are reddish-brown, pale-yellowish at the extremities and on the inner side.

The *labium* is similar to the maxillæ in colour, with a pale-yellowish apex.

The *sternum* is oval and of a deep shining reddish-brown colour.

The *abdomen* is of a blackish-brown hue, with the normal longitudinal marking on the fore half of the upper side, and a series of succeeding angular bars of an obscure brownish red; the whole is thickly clothed (especially along the median portion of the upper side) with greyish hairs, forming there a broad, longitudinal grey band, emitting some short lateral prominent lines on each side of the hinder part.

Hab.—Hills between Sirikol and Aktalla, between the 8th and 18th of May 1874.

117. LYCOSA FLAVIDA, sp. n.

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

The *cephalothorax* is of a pale-yellow colour, with two broad, longitudinal, lateral yellow-brown bands reaching from the fore to the hinder margin, and thinly clothed with greyish hairs; the height of the clypeus is no more than equal to the diameter of one of the fore central eyes.

The *eyes* are in the ordinary position, on large black spots; the whole of the fore part however, of the ocular area is more or less black. The front row is shorter than the middle one; its two central eyes are larger than the laterals, and the interval between them is greater than that between each and the lateral eyes next to it. The eyes of the middle row are very large, and separated from each other by no more than one diameter; this interval being but little less than that which separates each from the posterior eye opposite to it; the four hinder eyes form a square whose posterior side is longest and anterior one slightly the shortest.

The *legs* are moderately long and not very strong; their relative length is 4, 1, 2, 3, and they are of a pale yellow colour, rather paler than the cephalothorax, armed with spines and furnished thinly with hairs.

The *palpi* are moderately long, and similar to the legs in colour, deepening to a brownish hue on the last two joints.

The *falces* are moderate in length and strength, slightly divergent, perpendicular, of a yellow-brown colour, and clothed with bristly hairs.

The *maxillæ* and *labium* are of a paler hue than the falces, and the *sternum* is heart-shaped and similar in colour to the legs.

The *abdomen* is of a rather shortish oval form. On the upper side is a broad, longitudinal, pale-yellow band sharply dentated on its hinder half; the fore part of this band contains the normal longitudinal marking, of a slightly clearer colour, and faintly defined by a broken, brownish, indistinct line, and its hinder extremity is truncated. Some other indistinct, fine, brown, broken, angular lines on the hinder part, indicate the ordinary chevrons. On each side of the median dentated band, and, in fact, defining it, is a broad brown band diffused in scattered spots a little over the sides; the under side is immaculate. The genital aperture is small, but of a characteristic form.

An immature male exactly resembled the female.

Hab.—Yárkand and neighbourhood, November 1873; Káshghar, December 1873; between Yangihissár and Sirikol, March 1874; Yangihissár, April 1874; road from Yárkand to Bursi, May 28th to June 17th, 1874.

BOEBE, Genus Nov.

I am induced to form this new genus for the reception of four remarkable *Lycosids*, one received from Sinai, and described (P. Z. S., 1870, p. 822, pl. 1., fig. 3) as a *Lycosa* (*L. praelongipes*, Cambr.), another from the present collection, a third, *L. unguolata*, Cambr. Spiders of Egypt, Proc. Zool. Soc., 1876, p. 603, and a fourth, *L. arenaria*, Sav., Egypt. These (or at least three of them, for *L. arenaria*, Sav. is unknown to me, except from Audouin's figure and description, which do not detail the special points under consideration, though I have but little doubt of its possessing them), though exactly agreeing in several peculiar points of structure, are quite distinct species. The points in which they differ from *Lycosa*, *Trochosa*, and *Tarentula* may be seen from the following diagnosis of generic characters.

Cephalothorax oval, truncate before, and strongly constricted on the lateral margins of the caput; the normal indentations, especially the one dividing the caput from the thorax, are strong, and the upper side of the thorax on each side of the normal longitudinal indentation is gibbous, so that there is, when the spider is looked at in profile, a strong angular depression between the caput and thorax, the lateral thoracic margins being much depressed.

The *eyes*, as regards their general position, are like those of *Lycosa*, &c., but those of the second row have their vertical axes directed very nearly straight forwards, that is to say, scarcely at all upwards, though a little outwards; in this respect there is a marked approach to *Dinopis*, the facies being very vertical.

The *legs* are long and attenuated, especially those of the fourth pair. Two parallel rows of spines run throughout the under side of the tibiæ, metatarsi, and tarsi; at the fore end of each tarsus there is the appearance of a kind of short obsolete, or fixed, joint. It has apparently no movable articulation, but there is both a visible constriction and a kind of suture as though of a joint either consolidated by disuse, or in process of development towards a perfect supernumerary joint such as we find in *Hersilia*. The superior terminal claws are

unusually long, slightly curved, and have four or five denticulations at their posterior extremity.

The *maxillæ* are not very long, but rather enlarged at their extremities, where they are rounded; and, instead of forming a straight line with the labium, they are turned distinctly sideways, thus in another point resembling *Dinopis*.

The *labium* is short, broad, and truncated in a slightly curved convex line at the apex.

The *palpi* of the female are truncated at the extremity, and the terminal claw, which is nearly straight and finely pectinated, issues from the middle of the truncation.

118. BOEBE BENEVOLA, sp. n.

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

The *cephalothorax* is clothed with short, sandy-grey pubescence, and is of a yellow-brown colour, with a broad yellow longitudinal median band, strongly constricted at the occiput, and enlarged at the thoracic indentation, the portion in front of the constriction forming a very distinct, transverse, oblong-oval area. There is also a broken, narrow, sub-marginal yellowish band on each side. The height of the clypeus is equal to twice the diameter of one of the fore central eyes, and the colour of the ocular area is black.

The *eyes* of the front row form a straight line shorter than that of the middle row; the central pair of the front row are larger than the laterals, and are separated by an interval wider than that which divides each from the lateral eye on its side; those of the middle row are very large, and are separated by nearly about one and a half diameter's interval, forming a line not far from equal to that formed by each and the posterior eye opposite to it; the eyes of the hinder row are large, but smaller than those of the middle one, and form a much longer line.

The *legs* of the fourth pair are considerably the longest; and those of the second pair apparently the shortest; while there is not so much difference between those of the first and third pairs, the first being the longer of the two. They are yellow in colour; the femora marked distinctly with brown spots, patches, and some other linear markings of the same hue; the spines beneath the tarsi are numerous, of equal length, much shorter than those on the other joints, and give the joint a comb-like appearance.

The *palpi* are like the legs in colours, and in the markings on the humeral joints, and are furnished with hairs and a few spine-like bristles.

The *falces* are powerful, of moderate length, rounded in profile, clothed with sandy-grey hairs and long bristles, and of a dark reddish yellow-brown colour.

The *maxillæ* are yellow, strongly tinged with yellow-brown, particularly on their inner sides, and pale yellowish at their inner extremities.

The *labium* is dark yellowish-brown with a pale apex.

The *sternum* is of a short heart-shape and dark yellow-brown colour, thinly clothed with sandy-grey pubescence.

The *abdomen* is oval and moderately convex above; its colour is a dull brownish-yellow, marked with dark brown, occasionally approaching to black; the intersecting portions of the yellow ground-colour are spotted more or less with cretaceous-white spots. The normal longitudinal median marking (of a deep brown colour) on the fore half of the upper side is large, somewhat wedge-shaped, and roughly dentated on its margins, and its posterior extre-

mity is prolonged into a more or less distinct median line to the spinners, and gives off on each side various oblique lines and markings, forming some tolerably distinct, angular, yellow bars of different sizes, and some of which have a dark-brown spot at their extremities. There is a tolerably clear, marginal yellow space round the normal marking on the fore half. The under side is almost all occupied by a broad longitudinal light-brown band.

The genital aperture is small, but of characteristic form. The spinners are very short, but those of the superior pair are stronger and rather longer than those of the inferior. An immature male resembled the female in colours and markings.

Hab.—Yárkand and neighbourhood, November 1873; Káshghar, December 1873; between Yangihissár and Sirikol, March 1874; Yangihissár, April 1874; Yárkand, 21st to 27th May 1874, and Yárkand to Bursi, May 28th to June 17th, 1874.

Family—*SPHASIDES*.

Genus—*OXYOPES*, Latr.

119. *OXYOPES JUBILANS*, sp. n.

Adult male: length rather more than $3\frac{1}{2}$ lines.

This spider is nearly allied to *Oxyopes (Sphasus) lepidus*, Blackw., of which the female only has yet been described; the latter differs, however, from the female of the present species in being of a more robust form and in having shorter legs, as well as in the abdominal markings.

The general form and appearance are similar to those of most others of the genus; the *cephalothorax* is of a brownish-yellow colour, and the normal indentations are distinctly marked. The ocular area, and the middle of the clypeus are clothed with grey hairs; a fine brown line runs obliquely along the margins of the upper side, and so downward to the lower corners of the clypeus; two others run, one from each of the two foremost eyes, nearly perpendicularly to the falces (to the extremity of which they are continued), bisecting them in front. There are also two parallel brown lines along the middle of the cephalothorax, not reaching further forward than the occiput, and less distinct in the male than in the female; the eyes are on black spots and in the usual position, six posterior ones forming a transverse hexagonal figure whose sides scarcely differ in length; they may be also taken as in four transverse rows of two each. Those of the foremost row are very minute and separated from those of the next row by an eye's diameter. Those of the second row are the largest of the eight or nearly so, and are separated by an interval of one diameter, both from each other, and from the eyes of the third row; this row is considerably the longest, and the fourth row is slightly longer than the second, its eyes being rather further from each other than each is from the lateral of the third row on its side.

The *legs* are long and slender, their relative length seems to be 4, 1, 2, 3; they are of a yellow colour, and are armed with numerous long spines. The femora of the first and second pairs have longitudinal brown lines on the under side, a faint trace of two only of these existing on the femora of the third and fourth pairs.

The *palpi* are short, similar in colour to the legs; the cubital joint is very short with but a very slight angular prominence at its fore extremity on the upper side; the radial joint is much stronger than the cubital; it is strongly tinged with yellow-brown, much enlarged

In a blunt angular form on the outer side, with a short red-brown irregular projection rather underneath; the digital joint is round-oval, brownish-coloured behind, and of a narrow, slightly tapering, pointed, beak-like form in front; the beak portion is yellowish, and less in length than the oval part; this part has a small angular prominence at its base on the outer side. The palpal organs are prominent and rather complex, but do not present any remarkable processes. The radial and cubital joints are furnished with several long, curved, spine-like bristles.

The *falces* are not very long nor strong; they are of a subconical form, straight, perpendicular, similar in colour to the cephalothorax, and bisected in front by a longitudinal brown line.

The *maxilla* and *labium* are of normal form, the colour of the former is yellow, and of the latter yellow-brown.

The *abdomen* is long and narrow, being of an elongate, tapering, or pyramidal form; the fore part is the largest, and it gradually narrows to the spinners: it is of a yellowish hue, somewhat freckled with white cretaceous spots of small size; the upper side is margined on each side with a double longitudinal brown line, and a faint, narrow, tapering, dusky band along the middle; on the under side is a broadish, tapering, dusky, longitudinal band, margined with reddish-brown.

The female is more distinctly marked than the male, and the process connected with the genital aperture is blackish and prominent. The colours of this spider, as above described from examples for several years immersed in spirits, cannot be considered altogether reliable, inasmuch as the yellow tints may have possibly been more or less green when the spider was living.

Hab.—Tinali; route from Murree to Sind Valley, July 19th, 1873.

I come to the conclusion that this is the locality, because Dr. Stoliczka, in his diary of July 19th, 1873, mentions having found that evening a good number of spiders, "chiefly *Thomisus* and *Sphasus*" (= *Oxyopes*), and in the one unlabelled bottle I find the only examples of *Sphasus* contained in the whole collection. These are of three species, the present and the next one very nearly allied to each other, the third quite distinct both in form and markings; all three are, I believe, of undescribed species, though Dr. Stoliczka says of those he found "among the latter (*Sphasus*)" he recognized *Sphasus viridanus*. This is a Calcutta species described by Dr. Stoliczka in Journ. Asiat. Soc., Bengal, vol. xxxviii, p. 220, pl. xx, fig. 1, and is undoubtedly a species of *Pasithea*, Bl. (*Peucetia*, Thor.), which, though generically nearly allied to *Sphasus*, is yet easily recognized by the difference in the position of the eyes.

120. OXYOPES PREDICTA, sp. n.

Adult male: length 4 lines.

This spider is very closely allied to *Oxyopes jubilans*; it is, however, rather larger, and this, I think, may probably prove to be a constant character. In general colouring, form, and appearance, the two species are strikingly similar, but the following distinctions will serve to separate them without difficulty.

The *cephalothorax* has no lateral brown lines running to the fore corners of the clypeus, and the two parallel median ones are here replaced by a not very distinct, median, longitudinal rusty-reddish band, which runs quite to the hinder row of eyes.

The *palpi* present an easily observed difference from those of *Oxyopes jubilans* both in the radial and digital joints. The former is not enlarged on the outer side, but is, on the contrary, rather excavated there, with a somewhat corneous, red-brown ridge just behind the excavated part: the radial joint is also somewhat angularly prominent underneath towards the inner side. The digital joint has its short-oval, posterior portion of a darker hue, and more angularly prominent at its base on the outer side. The anterior, or beak-like, portion is also distinctly longer than the oval part, and terminates in a sharpish and somewhat corneous point.

The *legs* have the femoral joints of the third and fourth pairs as distinctly marked with one (if not two) longitudinal blackish-brown lines as the whole of the first and second pairs.

The *abdomen* has on the upper side a longitudinal, median, tapering, rusty-reddish band, at the fore part of which the normal elongate marking, of a somewhat spear-headed form and yellow colour, is visible.

Hab.—Found at the same time and in the same locality as *O. jubilans*. Tinali; route from Murree to Sind Valley, July 19th, 1873.

121. OXYOPES REJECTA, sp. n.

Adult female: length rather less than $3\frac{1}{2}$ lines.

This spider is nearly allied to *Oxyopes (Sphasus) gentilis*, C. L. Koch. It may easily be distinguished from the two foregoing species by its shorter legs, as well as by its shorter, stouter form, and by the short cephalothorax, which has the sides and hinder slope very steep, and the normal indentations very slightly marked, so that the divisional line between the thorax and caput is scarcely visible. The colour of the cephalothorax is brownish-yellow, paler in the ocular area and at the occiput; it is indistinctly marked in the median longitudinal line, as well as on the sides, with blackish-brown; there are also two slightly curved lines, of the same colour, running down from the two foremost eyes over to the middle of each of the falces, and continued over them in a slightly sinuous form, but stopping somewhat considerably short of their extremity.

The *eyes* are on conspicuous black blotches, those of the third row are considerably nearer to those of the second than to those of the fourth (or posterior) row. The length of the two last (2nd and 4th) rows are exactly equal, though, owing to the difference in the size of the eyes, the interval between those of each row is different. The height of the clypeus is rather less than half that of the facial space.

The *legs* are rather short, and their relative length is 4, 1, 2, 3. They are armed with long spines, and their colour is yellow, the femora being marked underneath with two longitudinal parallel, blackish-brown lines.

The *palpi* are similar to the legs in colour, rather long, slender, and armed with a few strong spine-like bristles.

The *falces* are not very long nor strong; they are of a subconical form, straight, and perpendicular; their length is less than the height of the facial space, and their colour is like that of the cephalothorax, with a longitudinal blackish-brown line from the base to two-thirds of the distance towards their extremity.

The *maxillæ* and *labium* are of normal form, and of a light brownish-yellow hue.

The *abdomen* is oval, pointed behind; on the upper side is a broad, longitudinal central slightly tapering yellowish band, spotted with small cretaceous-white spots, and showing the normal marking on the fore part of a clearer, though slightly brown, colour, and of an elongate diamond-shape; the marginal portions of the upper part are marked with blackish-brown oblique linear markings, which extend more or less over the sides. These parts, as well as the under side, are similar in colour to the middle of the upper side; the under side having a broad, well-defined, longitudinal, median, black-brown band, marked along the middle with pale yellowish. The genital aperture is small but of characteristic form.

Hab.—Found at the same time and place as the two foregoing species. Tinali; route from Murree to Sind Valley, July 19th, 1873.

Family—*SALTICIDES*.

Genus—*HELIOPHANUS*, C. L. Koch.

122. *HELIOPHANUS DUBIUS*.

Heliophanus dubius, E. Simon, Arachnides de France, tom. iii, p. 146, pl. x., fig. 4.

I have not been able yet to compare this spider (σ adult) with a type of *H. dubius*, Sim., but I believe it to be identical with that species, as it agrees well with the figures and description given *l. c.*

Hab.—Hills between Sirikol and Aktalla, 8th to 18th May 1874.

Genus—*PLEXIPPUS*, C. L. Koch.

123. *PLEXIPPUS ADANSONII*.

Attus addansonii, Sav., Egypte, p. 169, pl. 7, fig. 8.

Hab.—Both sexes of this spider, differing in no respect from examples found in Egypt, and received from Bombay, were contained in the portion of the collection without date or locality but probably (as before observed) made between Murree and Sind Valley about the end of July 1873.

Genus—*MENEMERUS*, E. Simon.

124. *MENEMERUS CINCTUS*, sp. n.

Adult male: length rather over $2\frac{1}{2}$ lines.

The *cephalothorax* is of a flattened form with a strong transverse depression indicating the junction of the caput and thorax. The upper area of the caput is black, the rest of the cephalothorax is dark yellowish-brown, paler towards the margins.

It is clothed with hairs mostly of a golden hue, a longitudinal median stripe and a marginal one on each side being furnished with white hairs; the marginal stripe is formed of two narrow parallel ones. There are also some prominent bristly hairs on the cephalothorax, strongest on the sides of the ocular area, below which three of them form a longitudinal line.

The *eyes* form an area broader than long; those of the anterior row are separated from each other by a small and equal interval, and those of the middle row appear to be as nearly as possible half-way between the first and third rows, and slightly within the straight line formed on each side by the laterals of those rows, of which the first is shorter than the third.

The *legs* are moderately strong and not very long, those of the first pair are the longest, considerably the strongest, and of a dark yellow-brown colour, the femora being the lightest in hue; the rest are yellow, tinged with brown, and all are furnished with hairs and long prominent bristles, but no spines except some short ones beneath the tibiae and metatarsi of the first pair: there is a compact claw-tuft beneath the terminal tarsal claws. The third pair appear to be slightly the shortest.

The *palpi* are short, of a yellow-brown colour, and furnished with hairs and bristles; the cubital joint is short and strong, the radial is shorter and less strong, but is considerably produced on its outer side, the produced portion ending in a tapering, pointed, slightly blunt apophysis. The digital joint is long, of a slightly bent oblong-oval form. The palpal organs have a large, nearly globular lobe at their base, extending beneath and rather on the inner side of the radial and cubital joints.

The *falces* are short, strong, straight, projecting strongly forward, and but very slightly divergent; their anterior extremity is as broad almost as the posterior, truncated, and with a strongish tooth at the inner corner; their colour is dark yellow-brown tinged with red.

The *maxillae* are short, strong, broadest, and rounded at their extremities, and inclined towards the *labium*, which is of a somewhat oblong-oval form; these parts are of a deep yellow-brown hue, the extremities of the former, and the apex of the latter being of a paler colour.

The *sternum* is oval and of a palish yellow-brown colour.

The *abdomen* is oval and of a somewhat flattish form; it is banded transversely on the upper part and sides with alternate broad whitish and dark-brown bands, the first band encircling the fore margin, is white, and the second and third are divided in the middle by a narrow brown patch; the brown bands are considerably the broadest, and all become more or less tapering when they reach the sides: the surface is clothed with hairs; a broad longitudinal median band, and a lateral one on each side, are formed by hairs of a rusty scarlet hue, those on the intermediate spaces being whitish grey; on the hinder half of the upper side is a longitudinal, median series of whitish, angular bars, of course visible only when they occur upon the brown transverse bands, the under side is dull whitish, with a broad median longitudinal tapering yellowish-brown band.

Hab.—Yárkand, May 1874.

125. MENEMERUS INCERTUS, sp. n.

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

The *cephalothorax* of this spider is short, of a rather flattened form, and the profile of the ocular area slopes, but very slightly, downwards; this part is of a brownish black hue, the rest of the cephalothorax being brownish-yellow, and the whole clothed with appressed grey hairs; some erect bristly ones being dispersed thinly over the surface. The margins are black.

The *eyes* of the anterior row are separated from each other by distinct intervals, that between the centrals being less than that between each and the fore lateral next to it; the posterior row is a little longer than the anterior one. A single row of strong bristles runs longitudinally just below the lateral eyes of the three rows, and the eyes of the middle row are nearer to the anterior than to the posterior row.

The *legs* are short, those of the fourth pair are the longest but less strong than those of the first pair, and those of the second pair appear to be a little the shortest: they are furnished with hairs, bristles, and a few spines, with a small claw-tuft beneath the terminal tarsal claws. The colour of the legs is yellow.

The *palpi* are similar to the legs in colour, short, slender, and furnished with white hairs.

The *falces* are short, not very strong, straight, projecting, and of a yellow-brown colour.

The *maxillæ* and *labium* are lighter-coloured than the falces.

The *sternum* is small, oblong-oval, and similar to the legs in colour.

The *abdomen* is of a rather elongate oval form, and of a dull yellow colour, somewhat clouded with reddish yellow-brown on the upper side, and clothed with fine yellowish and grey hairs, with a few dark, slender bristly ones intermixed; on the fore part is a brown marking consisting of two short parallel lines looped in front, and near the hinder extremity are three confluent bright red-brown patches. The genital aperture is of a distinctive form.

It is possible that this may be the female of *Menemerus cinctus*, but, as the colours and pattern of that species are different, it is best to describe it at present as distinct, until we have other evidence of their identity; dissimilarity of colours and pattern, as well as of structure, are often found in the sexes of spiders, though *primâ facie* such dissimilarity is proof of specific difference.

Hab.—Yârkand, end of May 1874.

126. MENEMERUS DELETUS, sp. n.

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

The form of the *cephalothorax* is flattish; it is of a deep yellow-brown colour, darkest on the caput, with an indistinct, ill-defined, brownish-yellow, marginal border, and a still less distinct, longitudinal, median stripe on the thorax. The caput and sides of the cephalothorax are clothed with light-grey hairs; those on the other parts had probably been rubbed off.

The *ocular* area is broader than long; the length of the anterior row of eyes is slightly shorter than that of the posterior one, and the eyes of the middle row are almost exactly intermediate between them. The fore central eyes are of a dull mother-of-pearl colour.

The *legs* are moderately long and strong; those of the first pair are the strongest, but not quite so long as the fourth pair, and the second pair are slightly the shortest. They are of a yellow colour, those of the first pair light yellow-brown, and with some short, strong spines in pairs beneath the tibiæ and metatarsi; beneath the terminal tarsal claws is a black claw-tuft.

The *palpi* are slender, not very long, and clothed with white hairs.

The *falces* are yellow-brown, the *maxillæ* and *labium* a little paler, and the *sternum* darker; the last clothed with coarse, whitish hairs.

The *abdomen* is oval, truncate before, pointed behind, and of a pale-yellow colour mottled thickly with whitish cretaceous spots; on the fore part of the upper side is a small,

median, longitudinal, dull yellowish-brown, somewhat arrow-headed marking, continued in an attenuated line of the same colour to the spinners; a little way from this, on each side, is an indistinct, longitudinal broad band clothed with coppery-red-hairs; the spinners are moderately long and strong, and of a pale yellow-brown colour. The form of the genital aperture is characteristic.

Hab.—Route from Yárkand to Bursi, May 28th to June 17th, 1874.

127. MENEMERUS FRIGÍDUS, sp. n.

Adult female: length $2\frac{1}{3}$ miles.

The *cephalothorax* is short, though distinctly longer than broad, and of the usual flattish form; the upper side is dark-brown, tinged with yellowish, the caput being the darkest, and there is a larger longitudinal patch of brownish-yellow on the middle; the sides are yellow, with a narrow white marginal border; the whole is thinly clothed with sandy-grey and whitish hairs.

The *eyes* of the posterior row form a line scarcely, if at all, longer than the anterior row, and the middle row is nearer to the anterior than to the posterior one. Those of the anterior row are of a dull mother-of-pearl colour, and are divided by distinct intervals; that which separates the central pair is less than that which divides each from the lateral eye next to it.

The *legs* are rather short, and not very strong; those of the first pair are a little stronger but distinctly shorter than the fourth pair, if, indeed, they be not also slightly shorter than the third, the second pair being the shortest; they are of a brownish-yellow colour, and are armed with a few spines, as well as with bristles and hairs.

The *palpi* are short, slender, yellow, and clothed with whitish hairs.

The *falces* are short, straight, projecting, and of a yellow-brown colour.

The *maxillæ* and *labium* are rather paler than the falces, and the *sternum* is similar to the legs in colour.

The *abdomen* is oval, and of a dull yellowish hue, marked irregularly with brown along the sides of the upper part, and with a longitudinal brown stripe along the middle of the fore part; this stripe is bifid at its hinder extremity, and followed by a series of brown, sharply-angular bars, some of which run into the brown markings on the sides. The form of the genital aperture is characteristic.

Hab.—Murree, June 11th to July 14th, 1873.

Genus—*ATTUS*, E. Simon.

128. ATTUS DEVOTUS, sp. n.

Adult female: length $1\frac{3}{4}$ lines.

The *cephalothorax* is of a slightly flattened form; the hinder slope is short, and at about an angle of 45° ; the forward slope of the caput being slight, and but very little convex; its colour is yellow-brown, darkest on the upper part of the caput, and it is clothed with yellowish and grey hairs intermixed; the lateral margins are black, immediately above which is a not very broad band of white hairs, and a similar band or stripe runs along the middle of the hinder slope to the occiput. The clypeus is very low and retreating.

The *eyes* form an area broader than long; those of the anterior row (which is of equal length with the posterior one) are very near to each other, if not quite contiguous. The fore centrals are of very large size and of a yellowish-brown mother-of-pearl hue; those of the middle row are equi-distant between the anterior and posterior lateral eyes.

The *legs* are neither very long nor strong; their relative length appears to be 4, 1, 3, 2; those of the first pair are the strongest, and those of the fourth pair are the most attenuated; their colour is yellow, and they are furnished with hairs and spines, the latter on the tibiæ and metatarsi, but only underneath these in the first and second pairs; beneath the terminal tarsal claws is a compact, blackish claw-tuft.

The *palpi* are moderately long, hairy, and yellow, the digital joint tinged with yellow-brown.

The *falces* are short, strongish, straight, directed forwards, though placed rather far back, and of a dark yellow-brown colour.

The *maxillæ* and *labium* are yellow-brown; the *sternum* being of a dark brownish-yellow, and of a rather elongate-oval form.

The *abdomen* is oval, truncated before and rounded behind, and projects over the hinder slope of the cephalothorax; it is clothed with grey, brassy-yellowish, and white hairs. The upper side is of a dull yellowish-brown colour, with an elongate, whitish marking along the middle of the fore part, followed by some not very distinctly defined, small, angular bars, on each side of which (as well as of the elongate marking) is a series of short transverse whitish markings, giving an appearance, when taken in connection with the markings along the middle, of irregular transverse stripes across the upper side; the sides and under side are dull yellowish, the upper part of the former slightly marked with faint brownish spots and markings, and the latter clothed with short, greyish hairs.

Hab.—Murrec, June 11th to July 14th, 1873.

129. *ATTUS BENEFICUS*, sp. n.

Adult female: length nearly $2\frac{1}{2}$ lines.

Cephalothorax short and broad, the hinder slope steep, at an angle of 45° ; the ocular area slopes a little forwards in a convex line and there is a distinct, though not unusually strong, transverse depression at the occiput. The clypeus is very low, being almost obsolete.

The upper part, with a portion of the sides, is black-brown, the ocular area quite black, with an oblong yellow stripe on the upper part of the hinder slope; the remainder of the sides is yellow, clothed with fine, white hairs.

The *eyes* form an area much broader than long; the posterior and anterior rows are equal in length; the fore centrals are very large and of a mother-of-pearl hue; they are separated by a small interval, less than that which divides each from the fore lateral on its side; the lateral eye, on each side, of the middle row is equi-distant from the laterals of the posterior and anterior rows.

The *legs* are short and strong; their relative length is apparently 4, 1, 2, 3, but the difference between 4 and 1, and 2 and 3 respectively, is very slight. Their colour is yellow, those of the first pair being clouded in parts with brown; the tibiæ and metatarsi of the third and fourth pairs, and the under sides of those of the first and second pairs, are armed with spines, and there is a compact claw-tuft beneath the terminal claws of each tarsus.

The *palpi* are short, yellow, and furnished with coarse hairs, principally on the digital joints.

The *falces* are short, strong, straight, nearly perpendicular, but removed rather far backwards, and of a dark yellow-brown colour.

The *maxillæ* and *labium* are yellow-brown; the *sternum* is yellow, with dusky margins, and of a rather elongate-oval form.

The *abdomen* is of a short-oval form, rather broader behind, where it is rounded, the fore extremity being rather truncated, and projecting over the base of the cephalothorax; the upper side is black-brown, thinly speckled with yellowish points; on the middle of the fore part is a small, somewhat triangular, pale-yellow patch, produced backwards in a short stalk-like form with a prominent blunt point or patch on each side, and followed towards the spinners by a series of large, angular lines, or chevrons, of the same colour; the first of these chevrons is of a rather sinuous form, and they all vary in strength and distinctness of definition, and have, here and there, a black-brown spot upon them; the sides are pale-yellow, spotted, chiefly on the hinder half, with black-brown, and the under side is also pale-yellowish, with a broad, longitudinal, median, dusky-brownish band. The genital aperture is small, and of characteristic form, its colour being yellow-brown, edged with red-brown; the spinners are short; the superior pair are of a dark-blackish hue; the inferior pair yellow-brown, slightly shorter, but a little stronger, than the superior pair.

Hab.—Sind Valley, August 1873.

130. *ATTUS DIDUCTUS*, sp. n.

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

This spider is nearly allied to *Attus beneficus*, which it resembles in general colours and markings, but may be distinguished at once by the less convex cephalothorax and the flatter ocular area. The sides of the cephalothorax also, instead of constituting a broad, well-defined yellow band along almost its whole width, have only an irregular and not very well-defined brownish-yellow, narrow, marginal border, the margin itself being black; the fore central pair of eyes are also much darker-coloured, and the legs are rather less strong, those of the fourth pair being distinctly, though not greatly, longer than the first, which last are rather the stoutest and are marked along each side with deep brown.

The colour of the *sternum* is dark yellow-brown, and the *abdomen* has a very similar pattern to that of *A. beneficus*, though less distinct, and the form of the genital aperture is quite distinct.

Hab.—Murree, June 11th to July 14th, 1873.

131. *ATTUS AUSPEX*, sp. n.

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

The *cephalothorax* is broader behind than in front; looked at in profile the hinder slope is long, gradual, and but very slightly convex, running to the third posterior row of eyes, from which the caput slopes rapidly downwards to the anterior row; its colour is yellow-brown, deepening gradually to the caput, which is black-brown; there is a narrow blackish

marginal line, and the whole is clothed pretty thickly with mixed yellowish, coppery-golden, and grey squamose appressed hairs, those immediately round the eyes of the front row being very bright and forming, probably in most cases, scarlet 'irides.'

The *eyes* form an area broader than long, and the posterior row is larger than the anterior one; the central pair of the anterior row are very large and close together, but not contiguous, being separated by an interval a very little less than that which divides each from the lateral of the same row on its side. These laterals are rather larger than the eyes of the posterior row, and the small eye (on each side) of the middle row is in a straight line with the inner edges of the fore lateral and hind lateral eyes, being also nearer to the hind lateral than to the fore lateral eye. The height of the clypeus is equal to the diameter of one of the fore central eyes.

The *legs* are strong and moderately long. Their relative length is 4, 1, 2, 3; they are of a pale-yellowish colour, furnished thickly with hairs, bristles, and spines. Some of the hairs are squamose and appressed, others long and prominent, especially on the first pair; those beneath the tarsi and metatarsi are the most numerous, and black, the rest being mostly grey or sandy-coloured. The terminal tarsal claws have a claw-tuft beneath them, and are long and slender, especially those of the fourth pair; these have only 1—3 minute teeth about the middle of the under side; on some, if not all, of the other legs, even these denticulations appear to be wanting. The legs of the first pair are considerably the strongest, while those of the fourth pair are much the longest.

The *palpi* are short and strong, similar in colour to the legs, and furnished with long (as well as some shorter squamose) grey hairs; the radial joint is shorter and less strong than the cubital, and its fore extremity on the outer side is produced into a not very long, tapering, sharp-pointed, curved projection whose extremity is of a deep reddish-brown colour; the digital joint is of great length, the base is of a somewhat angular shape, and the fore part is produced into a long cylindrical curved form; the palpal organs are bulbous, tumid, placed chiefly beneath the hinder part of the digital joint, and encircled at their base and round the inner side by a long, strongish, tapering spine, which runs more or less closely alongside the inner margin of the digital joint, and forms a very conspicuous and characteristic feature of the species.

The *falces* are short and straight, placed considerably backwards, and of a dark yellow-brown colour.

The *sternum* is small, oval, yellow-brown, and clothed with coarse grey hairs.

The *maxillæ* are short and almost touch, at their extremities, over the *labium*; these parts are yellow-brown, paler at the extremities of the former and the apex of the latter.

The *abdomen* is oval, of a yellowish-brown colour with an indistinct dark brown stripe along the middle of the fore part of the upper side, and clothed pretty densely with short squamose, mixed yellowish, grey, sandy, and shining coppery hairs; the under side is of a pale dull brownish-yellow hue, clothed with grey, squamose hairs.

The female is larger than the male, but resembles that sex in colours and other general characters. It is probable that a series of examples would show, in some instances, a more or less distinct pattern on the upper side of the abdomen, depending on the distribution of the colours of the hairs, which are subject to much variation in different individuals of the same species in this group. Traces of this pattern in brown blotches and markings are visible in the female. The *palpi*, however, are so characteristic in the adult male that the species can hardly be mistaken for any other.

Hab.—Yárkand and neighbourhood, November 1873; hills between Sirikol and Aktalla, 8th to 13th May 1874.

132. *ATTUS AVOCATOR*, sp. n.

Adult male: length slightly over $1\frac{1}{2}$ lines.

The *cephalothorax* of this small species is less high at the hinder row of eyes than in *Attus auspex*, the hinder slope is (when looked at in profile) a little convex, as also is that of the upper part of the caput, or ocular area. Its colour is yellow-brown, the ocular area being the darkest; it is thickly clothed with grey and yellowish mixed, appressed hairs, showing, however, three longitudinal stripes of white hairs, one on each side, just below the margin of the upper part, and the third along the middle of the hinder slope.

The *eyes* form an area considerably broader than long; the anterior row is equal in length to the posterior; in other respects the eyes are like those of *Attus auspex*.

The *legs* are rather short and moderately strong; their relative length being 4, 1, 3, 2. They are of a brownish-yellow colour, indistinctly annulated with darker brown, and the extremities of the tarsi of the first pair are blackish. They are clothed with hairs, bristles, and spines; the terminal tarsal claws are long and slender, and are apparently devoid of denticulations beneath; underneath them, on each tarsus, is a compact claw-tuft.

The *palpi* are short, similar in colour to the legs, and clothed with coarse (and principally grey) hairs; the radial is shorter than the cubital joint, and has a small pointed apophysis at the outer extremity; the digital joint is long but not very broad, being of a somewhat oblong form; and the palpal organs are simple and of a blackish-brown colour.

The *falces* are moderately long, not very strong, straight, perpendicular, but placed considerably backwards, and of a dark yellow-brown colour.

The *maxillæ* and *labium* are also yellow-brown, the former are pale at their extremities which do not nearly meet over the latter; the labium also has the apex of a pale hue.

The *sternum* is small, oval, of a dark yellow-brown colour clothed with coarse grey hairs.

The *abdomen* is oval, rather truncated in front. The upper side is dark brown, mottled obscurely with yellowish, the margin being a little notched and bordered with white hairs, a short streak along the middle of the fore part, of a dull yellowish hue, is followed to the spinners by a series of short, but pretty distinct, angular bars of the same colour; these markings are clothed with white hairs: the sides are longitudinally striated with brown, and the under side is of a dull brownish yellow.

Hab.—Yángihissár, April 1874.

SYSTEMATIC LIST OF SPIDERS ABOVE DESCRIBED AND RECORDED.

N. B.—The figures denote those districts in which the Spiders were found, (vide Introductory Remarks and the Separate Lists *postea*).

Fam. THERAPHOSIDES.

Gen. *Idiops*, (Perty).

Idiops designatus, sp. n., 1.

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Fam. FILISTATIDES.

Gen. *Filistata*, (Latr.).

Filistata reclusa, sp. n., 2.

Fam. DYSDERIDES.

Gen. *Dysdera*, (Latr.).

Dysdera cylindrica, sp. n., 1.

Fam. DRASSIDES.

Gen. *Drassus*, (Walck. *ad partem*).

Drassus troglodytes, (C. L. Koch), 2, 4, 5, 3.

- „ *infletus*, sp. n., 5.
- „ *interruptor*, sp. n., 2.
- „ *invisus*, sp. n., 5.
- „ *interpolator*, sp. n., 5.
- „ *dispulsus*, sp. n., 5, 2, 4, 3, 1.
- „ *interlisus*, sp. n., 5, 4, 2, 3.
- „ *involutus*, sp. n., 1.
- „ *lapsus*, sp. n., 5.

Gen. *Gnaphosa*, (Latr.).

Gnaphosa stoliczkæ, sp. n., 5, 3.

- „ *plumalis*, (Cambr.), 3.
- „ *mærens*, sp. n., 5, 3.

Gen. *Prosthesima*, (L. Koch).

Prosthesima cingara, (Cambr.), 4, 5.

Gen. *Micaria*, (Westr.).

Micaria convexa, sp. n., 5.

- „ *pallida*, sp. n. 5.

Gen. *Clubiona*, (Latr.).

Clubiona deletrix, sp. n., 1.

- „ *laticeps*, sp. n., 1.
- „ *laudata*, sp. n., 3.

Gen. *Cheiracanthium*, (C. L. Koch).

Cheiracanthium adjacens, sp. n., 1.

- „ *approximatum*, sp. n., 1.

Gen. *Agröeca*, (Westr.).

Agröeca debilis, sp. n., 5.

- „ *flavens*, sp. n., 4.
- „ *molesta*, sp. n.

SECOND YÁRKAND MISSION.

Gen. *Trachelas*, (L. Koch).

Trachelas costata, sp. n., 1, 2.

Fam. DICTYNIDES.

Gen. *Dictyna*, (Sund.).

Dictyna albida, sp. n., 5.

Fam. AGELENIDES.

Gen. *Argyroneta*, (Latr.).

Argyroneta aquatica, (Walck.), 4.

Gen. *Cœlotes*, (Blackw.).

Cœlotes tegerarioides, sp. n., 1.

„ *simplex*, sp. n., 1.

Gen. *Tegenaria*, (Latr.).

Tegenaria ? 3.

Fam. THERIDIIDES.

Gen. *Episinus*, (Walck.).

Episinus algiricus, (Luc.) 1.

Gen. *Theridion*, (Walck.).

Theridion saxatile, (C. L. Koch), 1.

„ *lepidum*, sp. n., 1.

„ *subitum*, sp. n., 1.

„ *confusum*, sp. n., 1.

„ *expallidatum*, sp. n., 1.

„ *tuberculatum*, (Kronenberg), 1.

„ *incertum*, sp. n., 1.

Gen. *Steatoda*, (Sund.).

Steatoda nigrocincta, sp. n., 1, 3.

„ *mandibularis*, (Lucas), 3.

„ *sordidata*, sp. n., 5.

Gen. *Phycus*, (Cambr.).

Phycus sagittatus, sp. n., 1.

Gen. *Erigone*, (Sav.).

Erigone atra, (Blackw.), 3.

„ *dentipalpis*, (Westr.), 1.

Gen. *Pachygnatha*, (Sund.)

Pachygnatha clerckii, (Sund.), 5.

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Gen. *Linyphia*, (Latr.).

- Linyphia consanguinea*, sp. n., 1.
„ *albopunctata*, sp. n., 1.
„ *straminea*, sp. n., 1.
„ *perampla*, sp. n., 1.
„ *pusilla*, (Sund.), 4,3.

Fam. EPETRIDES.

Gen. *Meta*, (C. L. Koch).

- Meta mixta*, sp. n.

Gen. *Tetragnatha*, (Latr.).

- Tetragnatha extensa*, (Linn.), 3.

Gen. *Epëira*, (Walck.).

- Epëira tartarica*, (Kronenberg), 2.
„ *bigibbosa*, sp. n., 1.
„ *pellax*, sp. n., 1.
„ *gurda*, sp. n., 1.
„ *haruspex*, sp. n., 4.
„ *pænulata*, sp. n., 1.
„ *prædata*, sp. n., 1.
„ *cucurbitina*, (Clerck) 1.
„ *cornuta*, (Clerck) 1, 3, 4.
„ *panniferens*, sp. n., 1.
„ *carnifex*, sp. n., 1.
„ *gibbera*, sp. n., 1.

Gen. *Chorizoopes*, (Camb.).

- Chorizoopes stoliczkæ*, sp. n., 1.
„ *congener*, sp. n., 1.

Fam. GASTRACANTHIDES.

Gen. *Cyrtarachne*, (Thor.).

- Cyrtarachne pallida*, sp. n., 1.

Fam. ULOBORIDES.

Gen. *Uloborus*, (Latr.).

- Uloborus albescens*, sp. n., 1.

Fam. THOMISIDES.

Gen. *Thomisus*, (Walck. *ad partem*).

- Thomisus albidus*, sp. n., 3.
„ *albens*, sp. n., 3.

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SECOND YÁRKAND MISSION.

Gen. *Misumena*, (Thor.).

- Misumena expallidata*, sp. n., 1.
 „ ? *oblonga*, sp. n., 1.

Gen. *Synema*, (Sim.).

- Synema exculta*, sp. n., 1.

Gen. *Dicæa*, (Thor.).

- Dicæa* (?) *spinosula*, sp. n., 1.
 „ *subdola*, sp. n., 1.
 „ *sufflava*, sp. n., 1.
 „ *suspiciosa*, sp. n., 3.
 „ *subargentata*, sp. n., 1.

Gen. *Xysticus*, (C. L. Koch).

- Xysticus cristatus*, (Clerck), 5.
 „ *audax* (?), (C. L. Koch), 5.
 „ *maculosus*, sp. n., 1.
 „ *setiger*, sp. n., 3.
 „ *breviceps*, sp. n., 3.
 „ *mundulus*, sp. n., 1.

Gen. *Monastes*, (Luc.).

- Monastes dejectus*, sp. n., 1.

Gen. *Sarotes*, (Sund.).

- Sarotes regius* (Fabr.), 1.
 „ *promptus*, sp. n., 1.

Gen. *Sparassus*, (Walck.).

- Sparassus timidus*, sp. n., 2.
 „ *fujax*, sp. n., 1.
 „ *flavidus*, sp. n., 4.

Gen. *Philodromus*, (Walck.).

- Philodromus cinerascens*, sp. n., 2, 3.
 „ *medius*, (Cambr.), 1.

Gen. *Tibellus*, (Sim.).

- Tibellus propinquus*, sp. n., 5.

Gen. *Thanatus*, (C. L. Koch).

- Thanatus thorellii*, (Cambr.), 3.
 „ *albescens*, sp. n., 1.

Fam. LYCOSIDÆ.

Stoliczka, gen. nov.

- Stoliczka insignis*, sp. n., 1.

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Gen. *Ocyale*, (Sav.)

- Ocyale* rectifasciata, sp. n., 1.
„ dentifasciata, sp. n., 1.

Gen. *Trochosa*, (C. L. Koch).

- Trochosa* rubiginea, sp. n., 4, 3.
„ hebes, sp. n., 4, 5, 3.
„ propinqua, sp. n., 1.
„ adjaceus, sp. n., 5.
„ sabulosa, sp. n., 5, 4.
„ approximata, sp. n., 1.
„ rubromandibulata, sp. n., 4.
„ lugubris, sp. n., 5.

Gen. *Tarentula*, (Sund.).

- Tarentula* irascibilis, sp. n., 5.
„ inimica, sp. n., 2.

Gen. *Lycosa*, (Latr. *ad partem*).

- Lycosa* condolens, sp. n., 4, 3.
„ fortunata, sp. n., 2, 4, 5, 3.
„ stellata, sp. n., 5, 4, 3.
„ credula, sp. n., 5, 3.
„ vindex, sp. n., 4.
„ vindicata, sp. n., 1, 5.
„ passibilis, sp. n., 5.
„ flavida, sp. n., 4, 5, 3.

Bæbe, gen. nov.

- Bæbe* benevola, sp. n., 4, 5, 3.

Fam. SPHASIDES.

Gen. *Oxyopes*, (Latr.).

- Oxyopes* jubilans, sp. n., 1.
„ prædicta, sp. n., 1.
„ rejecta, sp. n., 1.

Fam. SALTICIDES.

Gen. *Heliophanus*, (C. L. Koch).

- Heliophanus* dubius, Sim., 5.

Gen. *Plexippus*, (C. L. Koch.)

- Plexippus* adansonii, Sav., 1.

Gen. *Menemerus*, (Lin.).

- Menemerus* cinctus, sp. n., 4.
„ incertus, sp. n., 4.
„ deletus, sp. n., 3.
„ frigidus, sp. n., 1.

Gen. *Attus*, (Sim.).

- Attus devotus*, sp. n., 1.
 „ *beneficus*, sp. n., 1.
 „ *diductus*, sp. n., 1.
 „ *auspex*, sp. n., 4, 5.
 „ *avocator*, sp. n., 5.

SEPARATE LISTS OF SPECIES FOUND IN THE SEVERAL DISTRICTS.

N. B.—Where no figure is added, the spider was found only in the district under consideration.

DISTRICT 1.

Murree, Murree to Sind Valley, and Sind Valley.

- | | |
|--|---------------------------------------|
| <i>Idiops designatus</i> . | <i>Chorizoopes stoliczkæ</i> . |
| <i>Dysdera cylindrica</i> . | „ <i>congener</i> . |
| <i>Drassus dispulsus</i> , 2, 3, 4, 5. | <i>Cyrtarachne pallida</i> . |
| „ <i>involutus</i> . | <i>Uloborus albescens</i> . |
| <i>Clubiona deletrix</i> . | <i>Misumena expallidata</i> . |
| „ <i>laticeps</i> . | „ (?) <i>oblonga</i> . |
| <i>Cheiracanthium adjacens</i> . | <i>Synema exulta</i> . |
| „ <i>approximatum</i> . | <i>Dicea spinosula</i> . |
| <i>Trachelas costata</i> , 2. | „ <i>subdola</i> . |
| <i>Cœlotes tegerarioides</i> . | „ <i>sufflava</i> . |
| „ <i>simplex</i> . | „ <i>subargentata</i> . |
| <i>Episinus algericus</i> , (Luc.). | <i>Xysticus maculosus</i> . |
| <i>Theridion riparium</i> , (Blackw.). | „ <i>setiger</i> . |
| „ <i>lepidum</i> . | „ <i>mundulus</i> . |
| „ <i>subitum</i> . | <i>Monastes dejectus</i> . |
| „ <i>confusum</i> . | <i>Sarotes regius</i> , (Fabr.). |
| „ <i>expallidatum</i> . | „ <i>promptus</i> . |
| „ <i>tuberculatum</i> , (Kron.). | <i>Sparassus fugax</i> . |
| „ <i>incertum</i> . | <i>Philodromus medius</i> , (Cambr.). |
| <i>Steatoda nigrocincta</i> , 3. | <i>Thanatus albescens</i> . |
| <i>Phycus sagittatus</i> . | <i>Stoliczka insignis</i> . |
| <i>Erigone dentipalpis</i> . | <i>Ocyale rectifasciata</i> . |
| <i>Linyphia consanguinea</i> . | „ <i>dentifasciata</i> . |
| „ <i>albopunctata</i> . | <i>Trochosa propinqua</i> . |
| „ <i>straminea</i> . | „ <i>rubromandibulata</i> . |
| <i>Meta mixta</i> . | <i>Lycosa vindicata</i> , 5. |
| <i>Epëira bigibbosa</i> . | <i>Oxyopes jubilans</i> . |
| „ <i>pellax</i> . | „ <i>prædicta</i> . |
| „ <i>gurda</i> . | „ <i>rejecta</i> . |
| „ <i>punctata</i> . | <i>Plexippus adansonii</i> . |
| „ <i>prædata</i> . | <i>Menemerus frigidus</i> . |
| „ <i>cucurbitina</i> . | <i>Attus</i> (?) <i>devotus</i> . |
| „ <i>panniferens</i> . | „ <i>beneficus</i> . |
| „ <i>carnifex</i> . | „ <i>diductus</i> . |
| „ <i>gibbera</i> . | |

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DISTRICT 2.

Neighbourhood of Leh, and Tanktze to Chagra and Pankong Valley.

<p>Filistata reclusa. Drassus troglodytes, (C. L. Koch.), 3, 4, 5. „ interemptor. „ dispulsus, 1, 3, 4, 5. „ interlisus, 3, 4, 5. Trachelas costata.</p>	<p>Epëira tartarica. Sparassus timidus. Philodromus cinerascens, 3. Tarentula irascibilis. Lycosa fortunata, 3, 4, 5.</p>
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DISTRICT 3.

Yärkand to Bursi.

<p>Drassus troglodytes, (C. L. Koch.), 2, 4, 5. „ dispulsus, 1, 2, 4, 5. „ interlisus, 2, 4, 5. Gnaphosa stoliczkæ, 5. „ plumalis, (Cambr.). „ mœrens, 5. Clubiona laudata. Tegenaria (?). Steatoda nigrocincta, 1. Drepanodus mandibularis, (Luc.). Erigone atra, (Blackw.). Linyphia pusilla, (Sund.), 4. Tetragnatha extensa, (Linn.). Epëira cornuta, (Clerck), 4. Thomisus albidus.</p>	<p>Thomisus albens. Dicaea suspiciosa. Xysticus breviceps. Philodromus cinerascens, 2. Thanatus thorellii, (Cambr.). Trochosa rubiginea, 4. „ hebes, 4, 5. Lycosa condolens, 4. „ fortunata, 2, 4, 5. „ stellata. „ credula, 5. „ flavida, 4, 5. Bœbe benevola, 4, 5. Menemerus deletus.</p>
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DISTRICT 4.

Yärkand and neighbourhood, and Yärkand.

<p>Drassus troglodytes, (C. L. Koch), 2, 3, 5. „ dispulsus, 1, 2, 3, 5. „ interlisus, 2, 3, 5. Prothesima cingara, Cambr., 4. Agröeca flavens. Argyroneta aquatica, (Walck.). Linyphia pusilla, (Sund.), 3. Epëira haruspex. „ cornuta, (Clerck), 3. Sparassus flavidus. Trochosa rubiginea, 3. „ hebes, 3, 5.</p>	<p>Trochosa sabulosa, 5. „ approximata. Lycosa condolens, 3. „ fortunata, 2, 3, 5. „ stellata, 3, 5. „ vindex. „ flavida, 3, 5. Bœbe benevola, 3, 5. Menemerus cinctus. „ incertus. Attus auspex, 5.</p>
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DISTRICT 5.

Káshghar ; between Yángihissár and Sirikol ; Yángihissár ; road across the Pamir from Sirikol to Punjah and back ; and hills between Sirikol and Aktalla.

<p>Drassus troglodytes, (C. L. Koch.), 2, 3, 4. „ infletus. „ invisus. „ interpolator.</p>	<p>Drassus dispulsus, 1, 2, 3, 4. „ interlisus, 2, 3, 4. „ lapsus. Gnaphosa stoliczkæ, 3.</p>
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1 D

Gnaphosa plumalis, (Cambr.), 3.	Trochosa sabulosa, 4.
Prosthesima cingara, (Cambr.), 4.	„ lugubris.
Micaria connexa.	Tarentula inimica.
„ pallida.	Lycosa fortunata, 2, 3, 4.
Agröeca debilis.	„ stellata, 3, 4.
Dictyna albida.	„ credula, 3.
Steatoda sordidata.	„ vindicata, 1.
Pachygnatha clerckii, (Sund.).	„ passibilis.
Xysticus cristatus, (C. L. Koch.).	„ flavida, 3, 4.
„ audax, (C. L. Koch.).	Boebe benevola, 3, 4.
Tibellus propinquus.	Heliophanus dubius.
Trochosa hebes, 3, 4.	Attus auspex, 4.
„ adjacens.	„ avocator.

EXPLANATION OF THE PLATES.

Pl. I.

- Fig. 1. *Idiops designatus*, sp. n., ♂.
a. spider in profile with legs and palpi truncated; *b.* eyes from above and behind; *c.* palpus; *d., e.* portion of leg of first pair in different positions; *f.* natural length of spider.
- „ 2. *Filistata reclusa*, sp. n., ♀.
a. spider in profile without legs or palpi; *b.* eyes and falcēs from in front; *c.* natural length of spider.
- „ 3. *Dysdera cylindrica*, sp. n., ♂.
a. spider in profile without legs or palpi; *b., c.* palpus in two different positions; *d.* natural length of spider.
- „ 4. *Drassus infletus*, sp. n., ♀.
a. spider in profile without legs or palpi; *b.* eyes from behind; *c.* genital aperture; *d.* natural length of spider.
- „ 5. *Drassus interemptor*, sp. n., ♂.
a. spider in profile without legs or palpi; *b.* eyes from above and behind; *c.* palpus; *d.* natural length of spider.
- „ 6. *Drassus invisus*, sp. n., ♀.
a. spider in profile without legs or palpi; *b.* eyes from above and behind; *c.* genital aperture; *d.* natural length of spider.
- „ 7. *Drassus interpolator*, sp. n., ♂.
a. spider in profile without legs or palpi; *b.* eyes from above and behind; *c.* palpus; *d.* natural length of spider.
- „ 8. *Drassus dispulsus*, sp. n., ♂.
a. spider in profile without legs or palpi; *b.* eyes from above and behind; *c.* palpus of ♂; *d.* genital aperture of ♀; *e.* natural length of spider.
- „ 9. *Drassus interlisus*, sp. n., ♂.
a. spider in profile; *b.* eyes from above and behind; *c.* palpus; *d.* natural length of spider.
- „ 10. *Drassus involutus*, sp. n., ♀.
a. spider in profile; *b.** eyes from above and behind; *c.* genital aperture; *d.* natural length of spider.

* In this figure (10 *b.*), the eyes of the hind-central pair are placed too obliquely.

Pl. II.

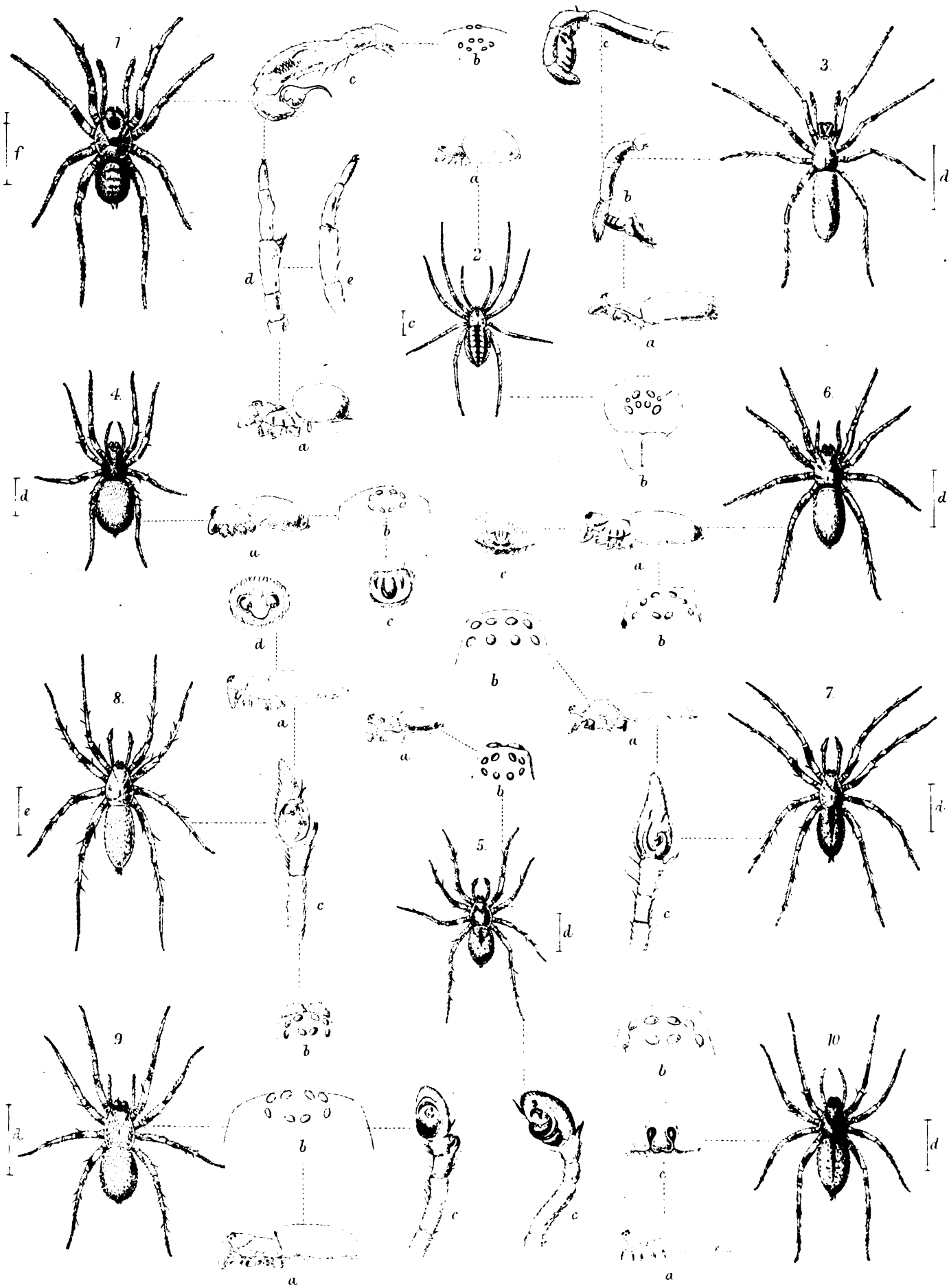
- Fig. 11. *Drassus lapsus*, sp. n., ♀.
a. spider in profile; *b.* eyes from above and behind; *c.* genital aperture; *d.* natural length of spider.

- Fig. 12. *Gnaphosa stoliczkae*, sp. n., ♂.
a. spider in profile; *b.* eyes from above and behind; *c.* palpus of ♂; *d.* genital aperture of ♀;
e. natural length of spider.
- „ 13. *Gnaphosa moerens*, sp. n., ♂.
a. spider in profile; *b.* eyes from above and behind; *c.* palpus of ♂; *d.* portion of palpus showing form of radial apophysis; *e.* genital aperture of ♀; *f.* natural length of spider.
- „ 14. *Clubiona deletrix*, sp. n., ♂.
a. spider in profile; *b.* eyes from above and behind; *c.* palpus of ♂; *d.* genital aperture of ♀;
e. natural length of spider.
- „ 15. *Clubiona laticeps*, sp. n., ♀.
a. spider in profile; *b.* eyes from above and behind; *c.* genital aperture; *d.* natural length of spider.
- „ 16. *Clubiona laudata*, sp. n., ♂.
a. spider in profile; *b.* eyes from above and behind; *c.* palpus; *d.* natural length of spider.
- „ 17. *Chiracanthium adjacens*, sp. n., ♂.
a. spider in profile; *b.* eyes from above and behind; *c.* palpus of ♀; *d.* genital aperture of ♂;
e. natural length of spider.
- „ 18. *Chiracanthium approximatum*, sp. n., ♀.
a. spider in profile; *b.* eyes from above and behind; *c.* genital aperture; *d.* natural length of spider.
- „ 19. *Agroëca debilis*, sp. n., ♀.
a. spider in profile; *b.* eyes from above and behind; *c.* maxillæ and labium; *d.* genital aperture;
e. natural length of spider.
- „ 20. *Agroëca flavens*, sp. n., ♀.
a. spider in profile; *b.* eyes from above and behind; *c.* maxillæ and labium; *d.* genital aperture;
e. natural length of spider.
- „ 21. *Trachelas costata*, sp. n., ♀.
a. spider in profile; *b.* eyes from above and behind; *c.* maxillæ and labium; *d.* genital aperture;
e. natural length of spider.

ARANEIDEA.

Second Harvard Mission

Plate I.



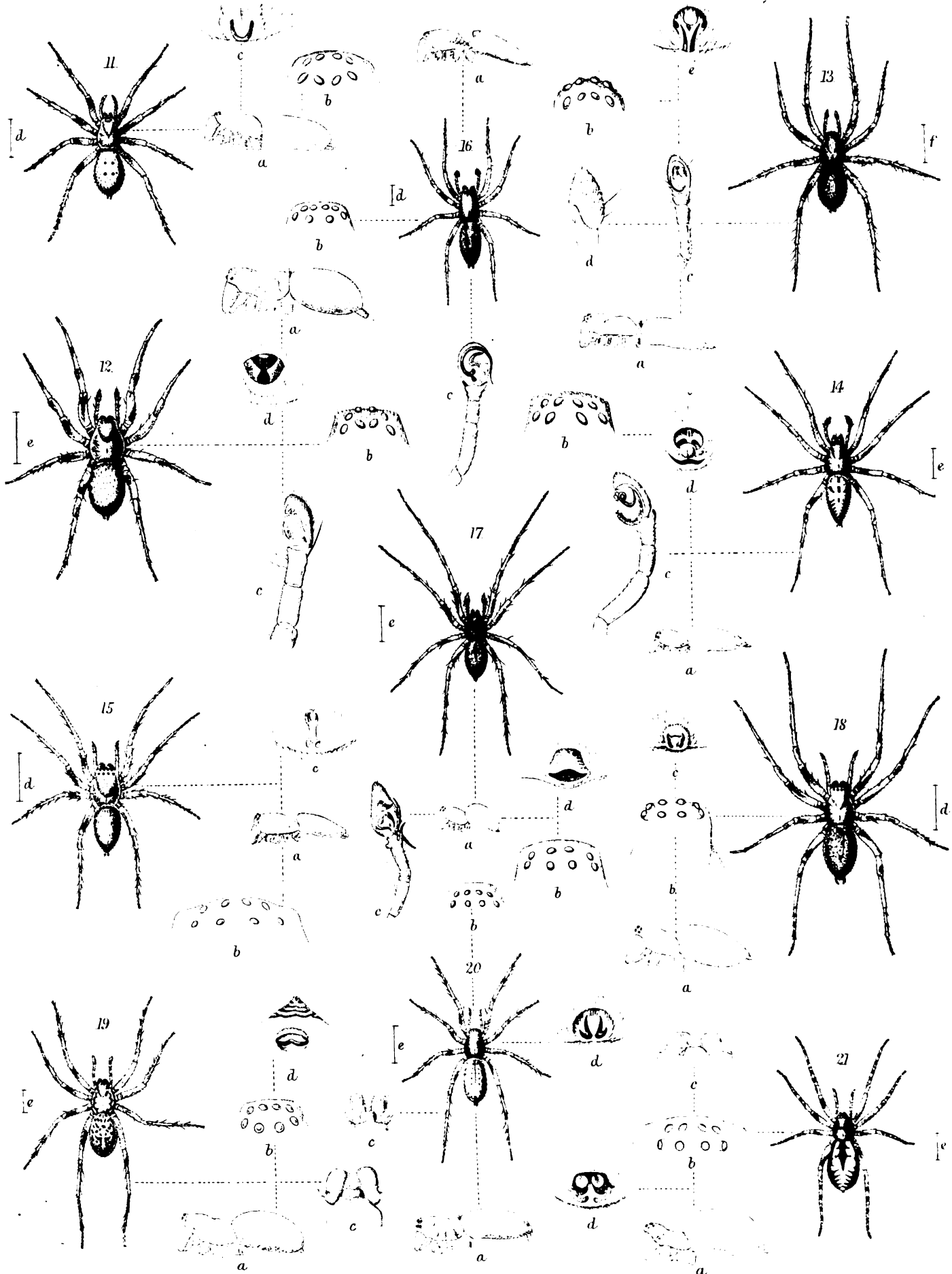
Walt. W. ...
Plate I.

Walt. W. ...
Plate I.

ARANEIDEA

Second Yarkand Mission.

Plate II



Tuffen. Wieg. del.
E. Carter lith.

Müller. Br. imp.

