

ON NEW SPECIES OF TASMANIAN ARANEÆ.

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OF TASMANIA.

FAM. THERAPHOSIDÆ.

Gen. MACROTHELE, AUSS.

Macrothele aculeata, sp. nov.

Mas.—Ceph. th., long, 7; broad, 5.1. Abd., long, 6; broad, 3.7; legs, 1, 4, 2, 3=24, 23, 22, 20 mm.

Cephalothorax, brownish-ochreous, median band dark chestnut-brown, trisected, central stripe and basal third of lateral attenuated; latter pair rapidly dilated, encroach over ocular region without any very determinate limits; thoracic indentation and marginal zone dusky; hairs black, short, sparse; lateral margins armed with a fringe of somewhat equidistant black spinelike bristles; two short oblique rows of similar bristles occur on posterior incline; ovate, rounded, and very slightly compressed beyond coxæ of first pair of legs; pars cephalica roundly truncated, convex, depressed visibly behind ocular elevation: *clypeus* projecting, height about equal to diameter and a-half of a fore-central eye; pars thoracica depressed by convex; indentation transverse, deep; caput and radial striæ broad, and somewhat shallow; profile, contour inclined gradually backwards, occiput arched.

Anterior row of *eyes* procurved, laterals close to margin of clypeus; central-pair posited on summit of elevation, less than their radius apart, separated from side-eyes of same row, which are oval, and nearly one-third larger, by an interval perceptibly shorter than their own diameter; posterior pairs in two sub-contiguous groups, median-eyes opalescent, much the smallest of eight, fully their breadth from anterior centrals; laterals oval, exceed hind-median pair by one-third, directed somewhat backwards, divided from fore-centre pair by a space surpassing their length.

Falces lake-brown; fairly-well haired on second half; linear, conical, project forwards at an angle of 20 deg.; profile arched; as long as the tarsus of second leg, not as stout as tibial joint.

Maxillæ orange-ochreous; inversely conical, similar in form to coxal joints of first pair of legs, inclined at same angle, palpi inserted at truncated extremity.

Labium brownish orange; small, about as wide as long; apex rounded.

Sturnum deep ochraceous; hairs black, coarse, moderately thick; ovate, lip at apex.

Legs, femora, patellæ and tibiæ olive-brown, longitudinally marked with brown-ochreous stripes, latter devoid of hair; outer lateral stripe broadest of series; streaks on tibiæ of fourth legs somewhat undetermined; metatarsi and tarsi brownish ochreous, base suffused with red-chestnut; legs stout, femora compressed; tibiæ cylindrical; pars tibialis of fore-leg projects from distal fourth-inner side, two stout, lake-brown, black tipped processes, directed towards each other; articulated extremity of front process cloven; posterior process stoutest, projects two sub-processes, upper—longest and strongest, somewhat spiral; lower—acuminate, apex reaches second half of upper sub-process, projects a long bristle; tarsi of first and second pairs somewhat turgid; scopula fine; femoral joints armed with bristle-like spines on superior aspect; tibiæ of two first pairs have 1, 1, 1, 2 beneath; metatarsus of first leg row of 3 at fore-end; of second 1, 2, 1, 3; tarsus of latter 1, 1, 1, small spines on inner side; spine armature of hind-pairs, including tarsi, more numerous and irregular. Superior tarsal claws—first pair, well curved, free end long; outer claw has 1 short basal tooth, 3 long, 4 moderately long open teeth; inner has only 7 teeth, being short of 1 medium tooth; inferior claw short, no teeth.

Palpi brown-ochreous, somewhat striped with olive-brown; humeral joint and lamina tinged with olive-green; stout; pars humeralis moderately compressed, in length fully equal to two-thirds of cubital and radial joints together; armed on superior aspect with row of spines; pars cubitalis cup-shape, more than half-length of penultimate article; latter joint cylindrical, truncated and somewhat constricted at extremity; projects from central third-outer side, a strong curved process furnished with numerous short, stout, black spines. Lamina strongly convex, somewhat quadrilateral, quite one-fourth longer than wide, inner margin impressed; superior fore-angle conical, prolonged forwards. Genital bulb connected to anterior end of lamina by a short stalk; viewed from inner side, lake-brown; discoid, prolonged into a long, flattish, sub-spiral, tapering apophysis, projecting backwards beyond the medial process, lake-brown above, pale brown-ochreous beneath; superior face of bulbous brownish-ochreous, discloses, apparently, two large, lake-brown, convex lobes; upper, or lobe proper, broad-pyriform; lower lobe sub-elliptical, formed by the tumid margin of bulbous.

Abdomen ovate, base truncated; rugose; fairly well furnished with black hairs, and stiff coarse bristles; light brown,

passing into brownish-ochreous, beneath; dorsal aspect suffused with a fuscous-brown; series of ten large spots of the lighter brown shade, enclose an oval area occupying the posterior three-fourths.

Single example.

FAM. DRASSIDÆ.

Gen. LAMPONA, Thor.

Lampona sub-aquila, sp. nov.

Fem.—Ceph. th., long, 3·8; broad, 2·8; facial index, 1·2. Abd., long, 4·3; broad, 2·8; legs, 1—4, 2, 3=8, 6·5, 6 mm.

Cephalothorax dull lake-black; hairs fine, light brown, tolerably sparse; rugose; oval, slightly compressed beyond coxæ of first pair; cephalic part convex, truncation sensibly rounded, marked with a shallow medial groove; *clypeus* visibly shorter than breadth of a fore-centre eye; thoracic part convex, indentation longitudinal; profile-line slopes gradually backwards with a slight double arch.

Eyes from two procurved rows; posterior line rather the longest; centrals oval, visibly less than their diameter apart; nearly twice their length from laterals, which they sensibly exceed in size; median pair of anterior row surpass side-eyes in size by nearly one-third; dark, separated from each other by rather more than an eye's radius, about half that space from laterals of same row, which are removed from margin of clypeus by an interval equalling their own radius; side-eyes have the pearl-grey lustre of posterior centrals.

Falces lake-brown; transversely rugose; conical, somewhat divergent, directed forwards, base projects beyond plane of clypeus; length equal to digital joint of palpus; their space visibly surpasses breadth of hind row of eyes.

Maxillæ yellowish-mahogany; long, sub-linear, increasing gradually in breadth, obtusely truncated, inclined against lip; base free, pointed,

Labium lake-brown, passing into a yellowish mahogany colour; twice as long as wide, conical, apex absconded, extends nearly to base of the truncated inferior angle of maxillæ; organ rugose.

Sturnum crimson-brown; studded with small papillæ projecting hairs; acute oval, fore end rather sharply constricted above coxæ of first pair.

Legs, two first pairs glossy, brownish-yellow; hind pairs lighter shade; have indications of dusky annuli on all joints except tarsal; moderately stout; tolerably well-furnished with light hairs; scopula moderately developed, extends to

base of metatarsus; claw tuft projects beyond claws, which are stout, short, well-curved; about 4 open teeth.

Palpi yellowish-amber colour; fairly well armed with hairs; pars humeralis compressed, perceptibly longer than cubital and radial joints together; pars cubitalis cup-shape, shorter than penultimate and digital joints, which are of about equal length.

Abdomen elongate-oviform, base truncated, stalk exposed; somewhat thickly clothed with short, light-yellowish hairs; ground colour light olive-brown; posterior-third clouded with fuscous-green; elongate, light olive-green mark on central third; ventral region shade lighter than dorsal; rather thickly clothed light-brown hairs, grouped in open tufts, arranged somewhat in lines. *Corpus vulvæ* represents a large, sub-hexagonal, moderately elevated, areolated area, centre purple-chestnut, passing into amber-brown; inferior half occupied by a large, deep, sub-circular fovea, whose hind-margin is developed into a single scolopi; fore-margin interrupted by a reddish, black bordered, wide, linear-oval groove, which curves over the more tumid, superior half of corpus, terminating above the rima genitalis.

Single example, Launceston.

Gen. DRASSUS, Walck.

Drassus pellus, sp. nov.

Fem.—Ceph. th., long, 4·9; broad, 3; facial ind., 2·5. *Abd.*, long, 5; broad, 3; legs, 1, 4, 2, 3=14·3, 12, 11, 9·7 mm.

Cephalothorax light burnt amber, greenish tone, facial area, strice and marginal zone darker shade; fairly well clothed with a light pubescence, erect black hairs on caput; oval, moderately constricted beyond coxal joints of first legs; cephalic region dilated forwards, truncation visibly rounded, convex; *clypeus* in height fully equals breadth of a fore-centre eye; thoracic part convex, sides impressed above marginal zone; normal grooves shallow; profile-line dips at an angle of 50 deg. to thoracic junction from limit of caput, ascends somewhat shapely over cephalic region, which is rather prominently rounded on fore-part.

Posterior row of *eyes* somewhat strongly procurved, centrals visibly smaller than laterals of same row, removed rather further from them than they are from each other; anterior row slightly recurved, median-pair sensibly larger than lateral eyes, separated by an interval nearly equal to an eye's diameter, less than their breadth and a half from side eyes, which are placed obliquely on a strong tubercle, divided by a space surpassing the breadth of the hind and somewhat smallest eye.

Falces greenish coffee-brown; hairs bristly, black, transversely rugose; conical, vertical, base turgid, projects beyond plane of clypeus, length equals metatarsus of second leg; stout, space exceeds breadth of ocular area.

Maxillæ light olive-brown, inferior margin streaked with chestnut-brown; armed with coarse erect black hairs; strong, gradually dilated, round pointed, straight.

Labium light olive-brown, clouded with red chestnut; conical; apex emarginate, three-fourths length of maxillæ.

Sturnum olive-brown; hairs whitish and black; ovate.

Legs light raw-sienna; armature, hairs whitish and black, latter most numerous, 4 or 5 rather slight; black spines on superior aspect of femora; patellæ project a bristle; tibial joints of first pairs, 8 slender spines on inferior surface; tibiæ of hind pairs, 5; metatarsal joints have about 12, including distal ring; scopula moderate, claw-tuft slight.

Palpi brownish-yellow, pars digitalis red-chestnut; moderately slender; furnished with black and light hairs; spines bristle-like, long and strong on digital joint.

Abdomen elongate-ovate; rather light olive-brown, pattern ill-defined—apparently a wide chocolate-brown stripe on basal half, double row of spots, similar shade, on posterior half. *Corpus vulvæ* brownish dark, chrome-yellow; posited on a large, somewhat triangular, elevation; rather more than half of the posterior side is occupied by a large, deep, trapezoidal pit, widest in front, posterior side, which exceeds the lateral in length, produced into a broad) (shaped septum; lateral and fore-margins prominent, beaded, centre-third of fore-margins produced into a lip-like projection representing a segment of a circle; curving round from angles of cavity towards the lip are two brown tipped, pointed, membranous processes, margins subclosed above; base of corpus turgid, wide and rounded in front, divided beneath lip by a broad, somewhat impressed, greenish-brown area.

Single specimen.

Drassus brunneolus, sp. nov.

Mas.—Ceph. th., long, 6; wide, 4·5; facial index, 3·1. Abd., long, 7; wide, 4·5; legs, 1, 2, 4, 3=23·5, 18·7, 17·5, 15 mm.

Cephalothorax fuscous; hairs light-yellow, adpressed, moderately thick, few black on caput; oval, constricted beyond coxæ of first pair; pars cephalica convex, lateral margins moderately arcuated, frontal margin sensibly rounded; depth of *clypeus* fully equals diameter of a fore-centre eye; pars thoracica convex, groove longitudinal; radial and caput strice

—when wet—well defined; profile line represents a low arch on forepart of caput, descends gradually to limit of thoracic indentation, from thence dips rather abruptly to stalk.

Posterior row of *eyes* rather strongly procurved; median-pair sensibly surpass laterals in size, removed about one-fourth further from them than they are from each other; anterior row moderately recurved; centrals more than twice as large as hind pair, fully their radius from each other, separated by twice that interval from side-eyes of same row, which are oval; laterals posited obliquely on a tolerably strong common tubercular prominence, divided by a space nearly equalling breadth of posterior eye, which is about one-third smaller than anterior eye.

Falces lake-black; hairs yellowish and black, moderately long and thick; transversely rugose; conical, inclined very perceptibly forwards, base projects beyond plane of clypeus; somewhat turgid and grooved on inner side; length equals the pars tibialis of a third leg; about as stout as the femur of the second.

Maxillæ dilated forwards, round-pointed, slightly inclined towards *labium*, latter conical, absconded, two-thirds length of maxillæ; organs dark chocolate-brown, apices brownish-yellow.

Sturnum greenish coffee-brown; oval.

Legs, thighs orange-brown, first pair tinged with lake; patellæ, tibæ — metatarsi reddish-orange, more or less—especially two anterior pairs, tinged with lake-brown; strong; fairly-well furnished with longish black hairs; femoral joints have 8 or 9 spines; tibæ of I.—II., 10 spines, of III.—IV., about 8; metatarsi of first and second legs have respectively 7—8; hind pairs about twelve; scapula and claw-tuft tolerably strong.

Palpi, humeral joint brownish-orange, of somewhat even breadth, barely surpasses cubital and radial together in length; pars cubitalis colour of former article, somewhat campanulate, equals penultimate joint in length, projects moderately strong bristles; radial joint lake-chestnut, armed with stout bristles, rather stronger than the pars cubitalis; obliquely truncated from apex of fore-process; superior angle projects three strong processes, directed forwards; centre process stoutest and longest, extends over base of clava; lateral processes form a line above central; inferior angle produced into an obtuse-conical process. Lamina lake-chestnut, well furnished with light hairs and long bristles; narrow ovate. Base of genital bulb represents a yellowish-brown, striated, sub-crescentic lobe, of somewhat even breadth; extremity of outer horn membranous, ovate, dilated, visible

surface concave; projecting from within concavity is a short, yellowish process; inner horn turgid, projecting, sharply recurved, and developed into a rich mahogany-brown, continuous membrane, which covers superior aspect of bulbous, its prominently arcuated margin fitting closely to the crescentic lobe; anterior fourth free, tapering, curves outwards and backwards.

Abdomen elongate-oviform; light olive-brown; markings purple-brown, ill-defined; basal-half exhibits an acute-elliptical figure, bordered with a deeper shade; posterior-half marked with about five pairs of spots; indications of oblique striped on lateral margins; ventral region purple-brown, defined by light hairs; shield elongate, yellowish-brown, bordered with light hairs. Abdomen clothed, rather thickly, with light yellowish and erect brown hairs.

Single specimen.

Gen. CLUBIONA, Str.

Clubiona elaphines, sp. nov.

Mas.—Ceph. th., long, 6; wide, 4.1; facial ind., 3.1. Abd., long, 6.5; wide, 4; legs, 4, 1—2, 3=16, 15, 11.5 mm.

Cephalothorax brownish-orange, passing into lake-chestnut on cephalic part; moderately clothed with fine, adpressed, pale yellowish and black, bristle-like hairs, sub parallel, lateral compression at caput slight.

Posterior and anterior rows of *eyes* sensibly and equally procurved; hind row of about equal size; centre-pair visibly the most distant apart; median eyes of front row more than twice size of hind pair, two-thirds their breadth apart; fore-laterals exceed hind pair by one-third, interval dividing them is fully equal to one-half the space separating the anterior pair from centrals of same row.

Falces brownish-orange, lake-reflections; few hairs; rugulose; sub-conical, anterior-fourth somewhat constricted, project much beyond plane of clypeus, inclined forwards, divergent.

Maxillæ light red-chestnut; long, bent outwards, second-half dilated, superior—external angle obliquely truncated; inferior angle acutely truncated.

Labium and *maxillæ* concolorous; rather more than twice as long as wide, sub-parallel, roundly emarginate.

Sturnum brownish - yellow; ovate; eminences opposite *coxæ*.

Legs shade lighter than cephalothorax, metatarsal and

tarsal joints of I.—II. deeper tone; armature, fine, adpressed, pale yellowish, and erect black hairs; spines black.

Palpi colour of legs; short, slender; humeral joint incrasated forwards; spine armature I., III. on fore-third; cubital joint sub-linear, more than one-third length of former article, projects a moderate bristle; radial joint about half length of cubital, produced on outer side into a strong, flattish, clathrate, blackish-lake process, directed forwards, upcurved, equal to article in length; pars digitalis, lamina oval, fairly haired, few bristles; bulb sienna-brown, few vein-like, dark brown lines; regulose; elongate, moderately tumid, posterior end cleft; covered by a dusky, wrinkled, membrane on inner side; fore-half—rather more—longitudinally intersected by a deep groove; extremity of bulbous concave, deeply emarginate; inner lobe, which extends nearly to apex of lamina, drawn out into a wide tapering spiral, bright orange-red apophysis, lying across extremity of bulb; outer lobe produced into two processes, upper semi-pellucid, conical; plainly visible immediately beneath it is a broad, rounded, black process, contiguous to a pale pyriform lobe.

Abdomen ovate, moderately convex; tolerably well clothed with fine light-yellow and erect black hairs; yellowish stone-colour, markings blackish-violet; on basal-third is an elongate figure of no determinate form, followed by a series of about seven, sub-touching, broad lanceolate marks, decreasing in size to anus; directed inwards from lateral borders are several large tooth-like projections.

Fem.—Ceph. th., long, 7; wide, 4.9. Abd., long, 8.5; wide, 4.9; legs, 4, 1—2, 3=18, 16, 13 mm.

Cephalothorax shade darker than males, visibly more dilated.

Eyes do not differ essentially from males.

Falces brownish-lake; transversely rugose; conical, gibbous at base in front, project moderately.

Maxillæ and *lip* lake-brown; normal form.

Sturnum brownish-orange, brown spots opposite coxæ.

Legs, in colour and armature resemble males. Femora of first and second legs have I. I., II. slender spines, of hind pairs, I., I., III.; patellæ of III.—IV. one side-spine; tibiæ of I. II., 2, 2 beneath; of III.—IV., 7 somewhat irregular spines; metatarsi of I. II. have 2 basal; of III.—IV., have respectively 6—8; distal rings of 6 spines.

Palpi colour and armature of legs.

Abdomen in form, colouration, and specific pattern does not differ essentially from the male. *Corpus vulvæ* sub-circular, inferior-half moderately elevated, transversely wrinkled, light reddish-brown, fuscous stains; centre of superior-half occu-

pied by a large, yellowish, circular fovea intersected by a pale, somewhat Y shaped costa, border colouration of upper-half, somewhat membranous, broad, ridged, constricted in front at base of costa; dark fore-margin projects over the rima genitalis.

Four specimens, Domain, Hobart.

Clubiona apiata, sp. nov.

Fem.—Ceph. th., long, 3·4; wide, 2·5; facial index, 2. Abd., long, 6; wide, 3·2; legs, 1, 4, 2, 3=16·3, 12, 11, 7 mm.

Cephalothorax light ochreous-brown; cephalic region exhibits medial and lateral bands lightly tinted with olive-green, former dilated, tapers to fovea, broken at limit of caput by a chestnut-brown lanceolate figure; latter bands interrupted; sparingly clothed with a pale pubescence and darkish hairs; nearly as long as the patellary and tibial joints of second leg; pars cephalica depressedly convex, sides abrupt; height of *clypeus* less than diameter of a fore-centre eye; thoracic part low, fovea very shallow; profile-contour inclined backwards with a visible curve to thoracic indentation, from thence dips to stalk more abruptly.

Eyes on narrow dark rings; posterior row sensibly procurved; median-pair scarcely larger than laterals, a little more distant from them than they are from each other; anterior row slightly recurved, centrals visibly exceed hind-pair in size, form with them a trapezoid narrowest in front; posited rather closer to one another than they are to side-eyes; latter pair separated by an interval equal to about three-fourths their diameter.

Falces ochraceous, faint olive-green streak; haired; subconical, fore-third somewhat constricted and divergent; project forwards; length rather surpasses their space, latter interval exceeds breadth of hind-row of eyes.

Maxillæ shade darker than legs; moderately haired; second-half dilated; superior external angle prominent, less acutely truncated than inferior angle, base of which nearly reaches lip.

Labium light brown; length rather exceeds breadth; sides rounded; apex abscinded; nearly two-thirds length of maxillæ.

Sturnum colour of coxæ; faint olive-green, triangular marks between the slight eminences.

Legs slender; shade lighter than cephalothorax, tinged at articulation of joints with red-lake; hairs fine, sparse; few slender black spines on femoral, tibial, and metatarsal joints; spines on penultimate article strongest; claw-tuft moderately developed; scopula somewhat scant; hairs fine.

Palpi paler than legs; hairs short, fine; slender; length, 4 mm.

Abdomen oviform, elongate; ground colour olive-green, closely spotted with stone-coloured, lake-tinted, lobate flecks; dorsum stained with lake, exhibits on posterior-third a brown-pink, linear lanceolate figure, which throws off a series of fine, dark-lake coloured lines, converging above the yellowish spinners; lateral margins and ventral region free from lake stains; fairly well clothed with short, whitish hairs. *Corpus vulvæ* represents a hemispherical elevation, truncated in line with the rima genitalis, concave within; of a pale ochreous-brown, clouded with olive-green.

Single example.

Fam. THERIDIIDÆ.

Gen. LINYPHIA, Latr.

Linyphia melanozantha, sp. nov.

Mas.—Ceph. th., long, 3; broad, 2.2. Abd., long, 3; broad, 2.2. Legs, 1—4, 2, 3=9, 8, 6.7 mm.

Cephalothorax rich ochreous-orange, lake reflections; marginal zone, ocular area, and wide stripe on clypeus olive-green; very sparsely furnished with black hairs; rugulose; broad-ovate, slightly compressed forward; pars cephalica semi-oval, convex, eye eminence prominent; three very perceptible medial grooves on occiput; *clypeus* projecting, height less than two-thirds depth of facial space; pars thoracica sub-circular, moderately convex, centrally depressed; indentation somewhat T-shape; caput and radial striæ fairly well marked; profile-contour gradually inclined backward, sensibly arched over occiput; thoracic curve more prominent.

Posterior row of *eyes* sensibly recurved; median pair about one-third smaller than side-eyes, posited obliquely, separated by an interval fully equal to the breadth of an eye; removed from laterals by twice that space; anterior row recurved; centrals dark, less than one-half size of hind pair, occupy a somewhat shorter space, rather more distant from side-eyes than they are from each other; latter pair large, have the pearl-grey lustre of posterior centrals seated obliquely on a common black tubercular prominence, sub-touching.

Falces olive-brown; transversely rugulose; somewhat slender, linear-conical, extremities bent a little outwards; retreating base level with plane of clypeus; length equal to depth of facial space.

Maxillæ ochreous-orange, fore-third suffused with olive-green, rather longer than wide, obtusely pointed, inclined over *labium*; latter organ reddish-brown; broad oval.

Sturnum ochreous-orange, brown margins; triangular, broad.

Legs yellowish-orange; femora and tibiæ of two first pairs almost entirely suffused with blackish-olive; metatarsi and tarsi have a dusky hue; indications of annuli at base of penultimate articles; tibiæ of third and fourth legs have irregular evanescent rings at base; moderately clothed with strongish, black hairs; tibial and metatarsal joints armed with black bristle-like spines; superior tarsal claws; first pair strong, somewhat evenly curved; two close basal teeth; eight curved, open teeth; inferior claw sharply bent; two teeth, outer strongest.

Palpi yellow-orange; stout; pars humeralis nearly as long as clava, incrassated forwards; cubital joint—viewed from above linear—roundly pointed, narrower than humeral joint, projects two black bristles; pars radialis quite as long as former article, laterally compressed; projects from above a very remarkable large, fuscous, bifurcating process, base and branches flat; leading branch about as wide as stem, gradually and moderately dilated forwards; apex truncated, incurved; lateral branch shortest, projects at a right angle towards clava, orbicular-spathulate; base of process armed with strong, long, black bristles; lamina fuscous-olive, moderately furnished with coarse, black hairs; rugose elongate-ovate; base obtusely truncated, upturned above into a short, pointed process; genital bulb represents a somewhat oblate-spheroid, basal end crossed by a transverse, olive-green callus forepart, traversed by a brown-lake callus; these bands are divided by a wide, yellowish groove, exhibiting beneath a dark sub-callus; the turgid anterior aspect of bulb is drawn out into a very wide, greenish membrane, reaching to apex of clava.

Abdomen inversely ovate; blue-black; spinners brownish-yellow; hairs black, coarse, somewhat sparse.

Fem.—Ceph. th., long, 2·2; wide, 2. Abd., long, 3·2; wide, 2·3. *Masc.* Ceph. th., long, 2·6; wide, 2·3. Abd., long, 4; wide, 3. Legs, 1-4, 2, 3=7, 6, 5·3 mm.

Cephalothorax glossy, deep amber colour; ocular area and clypeus suffused with olive-green; marginal streak dark, sparingly furnished with coarse, black hairs; rugulose; pars cephalica convex, semi-oval; eye eminence prominent; lateral index about equal to facial; *clypeus* inclined forwards, height, less than two-thirds depth of facial space; pars thoracica circular, moderately convex; posterior incline depressed; radial striæ well defined, caput grooves less pronounced; profile-line dips from limit of caput to thoracic junction at an angle of 30 deg., ascends moderately, with a sensible curve, to hind-row of eyes.

Posterior row of *eyes* sensibly recurved, nearly straight; centre-pair fully one-third smaller than laterals, rather more distant from them than they are from each other, an interval slightly exceeding their own diameter; anterior row recurved; median pair dark, about one-half size of hind-centrals, form with them a trapezoid, the front line of which is shortest; visibly more remote from one another than they are from side-eyes; laterals of fair size, have the pearly lustre of posterior centre-eyes posited obliquely on a strong, common tubercle, sub-contiguous.

Falces yellow-brown, olive-green hue; fore-half and sides suffused with a deeper shade; linear-conical, retreat perceptibly; not fully as stout as the femur of a second leg, as long as the *pars digitalis* of palpus.

Maxillæ brownish-yellow, mottled, fore-half passing into olive-brown; well developed, somewhat linear, round-pointed; inclined over *labium*; latter organ shade darker; breadth surpasses length by one-third, somewhat rounded.

Sturnum deep chestnut-brown; glossy; broad-cordate.

Legs orange-ochreous; first pair, basal two-thirds of femora olive-green; tibiæ suffused with same shade; metatarsi and tarsi slightly suffused, faint basal ring on former articles; markings on second legs resemble first, except that the broad bands on femora are reduced to basal annulations; third and fourth pairs have very faint indications of annuli; hairs black, somewhat coarse and sparse; few bristle-like spines. Superior tarsal claws—first pair, 15 open comb-teeth forming an even line with point of claw; inferior claw sharply bent, two tolerably strong teeth, outer longest.

Palpi, colour and armature of legs; *pars digitalis* fuscous-green; rather longer than cephalothorax; palpal claw moderately curved, 11 open comb-teeth extending length of claw.

Abdomen broad-ovate, projects over base of cephalothorax; bluish-black; sparingly clothed with coarse black hairs. *corpus vulvæ* yellowish mahogany colour, fuscous clouds about base; represents a large transverse, sub-oval, plano-convex, turgid projection; superior margin somewhat prominent, projects over the *rima genitalis*.

Numerous examples differing somewhat in their cephalic shading and leg markings.

Linyphia quindecim-punctata, sp. nov.

Fem.—Ceph. th., long, 2.1; wide, 1.5. Abd., long, 4 wide, 2. Legs, 1, 2, 4, 3=10.6, 10, 9, 7 mm.

Cephalothorax ochreous-brown; dorsal aspect of caput dark chocolate; sides of thorax clouded and streaked with olive-

green; fovea dark, very sparingly clothed with hair; cephalic part oval, facial and lateral index about equal breadth; *clypeus* projecting, one-half depth of facial space; thoracic part oval, convex; fovea oval, longitudinal, deep; normal grooves, somewhat slight; profile-line moderately curved across occiput, dips forward; thorax rises sensibly above plane of caput, slopes at an angle of 40deg. to stalk.

Eyes of tolerable and nearly equal size, on dark rings; posterior row sensibly procurved; median pair visibly more distant from laterals than they are from each other, an interval scarcely equalling an eye's diameter; anterior row recurved; centrals dark; smallest of eight removed from one another by more than an eye's radius; fully their diameter from side pair; laterals surpass posterior median pair in size, posited obliquely on a dark, common, moderately strong tubercular elevation, contiguous.

Falces brownish-ochreous, clouded with olive-green; subconical, divergent, retreating; base projects sensibly beyond plane of clypeus; three strong teeth on outer row; inner four small, moderately stout; length slightly exceeds the pars digitalis of palpus.

Maxillæ ochraceous, base chocolate; rather longer than broad, inclined towards one another.

Labium greenish-chocolate, apex yellowish; broad-oval, apex tumid, everted.

Sternum olive-green; cordate nearly as wide as long.

Legs slender, ochreous-yellow, annuli faint olive-green; femoral, tibial, and metatarsal joints of I.—II. have three rings, III.—IV. pairs two; hairs light, sparse; femora, patellæ, and tibæ moderately armed with slender spines.

Palpi and legs concolorous, long, slender; cubital and radial joints project strongish bristles.

Abdomen elongate-oviform; ground colour olive-drab; folium ovate, occupies dorsal aspect, flecked, more especially along margins, with lake-tinted creamy-coloured dots; displays round border 15 large brown spots, separated by about their own breadth; lateral margins show dull flecks and brown blotches. *Vulvæ* ochraceous, faint, longitudinal, olive-green stripes, two red-brown spots at extremity; moderately haired; represents a remarkably long, curved, membranous scapus, projecting abruptly from a slight elevation, and extending backwards nearly to spinners; of even width, convex above, concave beneath, margins grooved, apex acutely emarginate. Free part of base or sub-scapus cleft, projects over the rima genitalis; dark spot within basal curves; beneath the superior scapus, and extending beyond it,

is a yellow translucent, very slender stylus, apex ladle-shape; springs from base of sub-scape.

Single example.

Linyphia sub-luteæ, sp. nov.

Fem.—Ceph. th., long, 2·1; wide, 1·6. Abd., long, 3·2; wide, 3. Legs, 1, 4, 2, 3=12·8, 8·6, 8, 6 mm.

Cephalothorax, light ochreous-brown; medial streak wide, without clearly defined limits, chocolate-brown; lateral margins speckled with similar tone; broad-ovate, slightly compressed at caput; pars cephalica convex, roundly truncated; eye prominence moderate; height of *clypeus* rather exceeds one-half depth of facial space; pars thoracica prominently convex; fovea deep elongate-oval, longitudinal; radial striæ fairly well marked; caput grooves well defined; profile line rises with a sensible curve from margin of eye area to limit of caput, from thence represents an abrupt curve to stalk.

Eyes on black rings, enclose an oval space; centrals of posterior row removed rather further from laterals than they are from each other, an interval fully equal to an eye's breadth; median-pair of anterior row dark, scarcely as large as hind pair, form with them a sub-quadrilateral figure, rather longer than broad; divided from side eyes by a space equalling their radius; laterals visibly the smallest of eight, opalescent; posited on a moderate sized, common dark tubercle, sub-touching.

Falces, yellowish, amber colour; slender, conical; inclined forwards, base in line with plane of clypeus; length equal to depth of facial space.

Maxillæ ochreous-brown; long, linear-spathulate; somewhat bent over lip.

Labium, lightly suffused with olive-green, short, about twice as wide as long, rounded, everted.

Sturnum, pale brownish-olive, metallic reflections; heart-shape; slight eminences opposite coxæ.

Legs, light ochreous-brown; central and distal annulations of a deeper tone on tibæ and metatarsi; hairs dusky, tolerably thick; bristle-like spines on the pars petellaris and tibialis.

Palpi, colour and armature of legs; cubital joint shorter than radial; digital rather longer than humeral.

Abdomen oviform, projects well over base of cephalothorax; hairs yellowish, short, fairly thick; ground colour light brown, approximating to olive-green; central-third occupied by an elongate, diamond-shaped figure, stained with dark chocolate, margins pale brownish-chrome.

Corpus vulvæ ochreous-brown; transverse oval, moderately elevated; summit occupied by two rather large, broad-oval fovea, divided by a septum fully one-half their breadth; four black processes project outwards from within fovea; outer pair sub-touching margin, short, second pair separated by septum, corneous, moderately stout, in length about equal to diameter of fovea, curved towards superior border of corpus, inclined towards each other.

Single specimen.

Linyphia nitens, sp. nov.

Fem.—Ceph. th., long, 1·2; broad, 1. Abd., long, 2·3; broad, 2. Legs, 1, 2, 4, 3=6·9, 5·5, 4·2, 3 mm.

Cephalothorax fulvous, sparingly speckled with lake, fovea and radii olive-green, lateral margins lightly pencilled with a similar tint. Hairs sparse. Ovate, lateral compression at caput slight; pars cephalica depressedly convex, roundly truncated, lateral index fully equals two-thirds of facial; *clypeus* vertical, depth scarcely surpasses diameter of a fore-centre eye; pars thoracica convex; fovea transverse oval; normal grooves fairly perceptible; contour of profile rises from stalk at an angle of 40 deg., slopes forwards with a perceptible curve.

Posterior row of *eyes* pearl-grey, visibly procurved, equidistant, centrals nearly one-half larger than laterals of same row, separated by scarcely an eye's interval, less than their diameter a half from fore-centrals; anterior row dark, moderately recurved, about equal distances from each other; median pair rather the smallest of eight, on dark rings, divided by an interval exceeding their breadth; lateral eyes posited obliquely on dark, contiguous tubercles, nearly radius of the fore-eye apart, latter eye intermediate in size between the hind-lateral and fore-central.

Falces brownish-amber colour; strong, conical, gibbous at base in front, vertical; length exceeds digital joint of palpus, rather stouter than thigh of a leg of first pair.

Maxillæ greenish-yellow, dappled with olive-green; nearly as broad as long, rounded, taper to base; separated by an interval about equal to their own breadth.

Labium bluish-black; one-third wider than long, strongly everted.

Sturnum brown, suffused with bluish-black, nearly as wide between second pair of coxal joints as long, tapers somewhat rapidly to a tail-like prolongation between coxæ of fourth legs.

Legs pale fulvous, greenish reflections; distal olive-brown annulations on tibial, metatarsal and tarsal joints. Hairs

sparse, spines bristle-like, 1 or 2 on femora of I--II; patellæ project 1; tibiæ 2 or 3; metatarsi less; superior tarsal claws—1st pair, long, slender, slightly curved, about 18 short, close teeth; inferior claw sharply bent, 1 long tooth.

Palpi pale-brown, radial joint greenish; armed with bristles; palpal claw long, slender, somewhat straight, tip bent, 6 short open teeth.

Abdomen oviform, depressedly convex, greenish gamboge, more or less stained with reddish-lake, spotted with silver lobate specks—few golden, more or less confluent along margin of dorsal band; latter broad at posterior end, tapers forward to a mere streak, displays two cross-bars on basal curves; broader part exhibits 6 or 7 ill-defined arcuate-bars; the indigo-brown colour of ventral region encroaches in a wedge-shape into lateral margins from posterior end; shield sub-oval, border light brown, silvery flecks. *Corpus vulvæ* represents a dark brown, sub-circular elevation; each lateral slope indented by a small, shallow, ovate fovea, whose apex is directed inwards; fovea connected by a strong, dark, V-shaped costa, whose extremity reaches over the edge of the somewhat abrupt incline above the rima genitalis.

Two examples.

Gen. THERIDIUM, Walck.

Theridium pilatum, sp. nov.

Mas.—Ceph. th., long, 2; wide, 1.5. Abd., long, 2.2; wide, 1.7; legs, 1, 2, 4, 3=12, 8.2, 7.5, 4.9 mm.

Cephalothorax brownish-stone, passing into ochreous-orange about facial region, speckled with olive-brown; median band dilated on caput, mottled with olive-brown; hairs very sparse; ovate, lateral compression slight; cephalix part convex, round-pointed; height of *clypeus* equal to rather less than one-half depth of facial space; thoracic region convex, fovea sub-oval, deep; caput and radial striæ moderately defined; profile-contour represents a double arch; thoracic curve which rises sensibly above plane of caput, dips abruptly; cephalic part forwardly inclined.

Eyes on dark rings, of moderate and nearly equal size; posterior row procurved, centrals divided by nearly an eye's interval, removed one-fourth more than that space from side-eyes; anterior row recurved, median pair dark, largest of eight, separated from one another by scarcely more than an eye's diameter, and from side-eyes by an interval sensibly less than their radius; laterals smallest of eight, seated obliquely on a common, lake-brown tubercle, sub-touching.

Falces ochreous-orange; slender, conical, vertical, length equal to breadth of ocular area.

Maxillæ light yellow-brown, inferior margin and apex opalescent; moderately wide, acutely-spathulate, inclined towards each other.

Labium somewhat the colour of maxillæ, one-third broader than long, sub-quadrate, rounded.

Sturnum broad-cordate; fulvous, clouded with olive-brown.

Legs yellowish stone-colour, ochreous-orange reflections; annulations chestnut, evanescent; pre-apical and apical on femora of I.—II.; distal rings on femora of III.—IV.; tibiæ of first pair 4 rings, of hind pairs central and apical annuli; metatarsal joints have central and apical rings, basal indicated. Hairs somewhat sparse; bristle-like on patellary-tibial joints.

Palpi humeral cubital joints light stone brown, penultimate article and clava ochreous-orange; pars humeralis somewhat stout, exceeds in length two following joints by one-third; cubital somewhat campanulate; pars radialis much enlarged and roundly pointed on superior side; two latter articles furnished with black bristles; laminæ bulbi ovate, tapering, directed towards each other, moderately armed with strong, black hairs; genital bulb, viewed beneath from inner side, mitriform; inferior side shortest, displays on its face an oval, shield-like callus; projecting from within bulbous, and extending nearly to extremity of clava, is a wide, semi-pellucid apophysis, sub-spiral, abruptly truncated, inferior angle shortly prolonged, cyathiform.

Abdomen oviform; hairs sparse; olive-brown, spotted with large and small creamy-coloured flecks; fore-half occupied by a lanceolate figure, somewhat suffused with dull-red, marked with large fuscous spots; margin, confluent creamy flecks; posterior incline exhibits a sub-oval band, closely spotted with normal flecks; lateral margins marked with a longitudinal, interrupted fuscous band, gradually enlarged posteriorly, curves round spinners, confluent beneath.

Fem.—Ceph. th., long, 2; wide, 1.5. Abd., long, 3.2; wide, 2.8. Legs, 1, 2, 4, 3=10.8, 9, 8, 5 mm.

Cephalothorax brownish stone-colour; median band sharply constricted at fovea, mottled olive-brown; side border wide, somewhat acute-crenate, similar shade; hairs coarse, sparse, mostly on caput; pars cephalica convex, frontal line round-pointed, lateral index one-third shorter than facial; *clypeus* inclined moderately forwards, depth nearly equal to half facial space; pars thoracica ovate, moderately convex; fovea oval, longitudinal; normal grooves tolerably well defined; contour of profile rises from stalk at an angle of 45 deg., inclined forwards.

Eyes do not differ essentially from males.

Falces colour of cephalothorax; conical, inclined sensibly forwards; base scarcely projects beyond plane of clypeus; in length fully equal to the pars digitalis of palpus.

Maxillæ normal stone-colour, two fore-thirds suffused with a deeper shade; as long as falces.

Labium light olive-green; oval, length rather surpassed by width.

Sturnum greenish stone-colour, wide olive-brown border; broad cordate, perceptible eminences opposite coxæ.

Legs, slender; light brownish stone-colour; femoral, tibial and metatarsal joints have more or less undefined olive-brown distal and pre-apical annulations; sparingly armed with dusky hairs; patellæ and tibiæ of two first pairs have respectively 1—2 slender bristles.

Palpi shade paler than legs; slender; few hairs and bristles.

Abdomen sub-ovate, base rather prominent, grooved; ground colour approximating to brown-pink, passing into a pale tone beyond folium, numerous small stone-coloured flecks and dark brown spots; rather more than half of dorsum occupied by a lanceolate figure—apex directed backwards, spotted—especially the haft, which about equals the lance-head in length, with fuscous dots, margins creamy, stained with orange-red about lance-head; lateral margins have three interrupted fuscous, nearly vertical, bands, first band terminates in a large spot on posterior side of stigmata, interspace occupied by creamy flecks; three spots occur close to spinners, centre brown, oblong; outer spots consist of a group of light flecks. *Corpus vulvæ* greenish stone-colour; represents a moderately prominent sub-triangular elevation, whose extremities curve over the orange-brown stigmata; comprised within the shallow, somewhat oval, central depression are two not very clearly defined sub-circular fovea divided by a broad septum, about their equal in diameter; projecting from within each fovea are two processes, forming a transverse line; outer pair black, cylindrical, short; inner pair perceptibly the widest, brownish-lake, linear spathulate, concave on fore-side, fully four times as long as outer processes.

Two males and a female.

FAM. ENYOIDÆ.

Gen. *HABRONESTES*, L. Koch.

Habronestes flavipedes, sp. nov.

Fem.—Ceph. th., long, 3·6; wide, 2·5. Abd., long, 4·5; wide, 2. Legs, 4, 1, 2, 3=11, 10, 9·9, 9 mm.

Cephalothorax dull, deep olive-green, facial space, wide medial band, and radii approximating to fuscous-black; sub-marginal fringe of sparse white plumose hairs, small patch close to posterior centre-eyes and hind-slope; rugulose, studded with minute papillæ; pars cephalica somewhat quadrate, strongly convex, sides steep, ocular eminence tolerably prominent, sub-circular; *clypeus* retreats visibly, depth exceeds half length of eye-area; pars thoracica elevated, slopes somewhat abruptly from the deep, narrow indentation, sides moderately rounded; caput and radial striæ well defined, shallow; contour of profile rises from thoracic junction at an angle of 45 deg., represents a level line to eye-region broken by two slight arches, crown of thoracic part rather above plane of occiput.

Eyes in two procurved rows; posterior line nearly semi-circular; eyes equal in size; centre-pair rather more distant from laterals than they are from each other, an interval scarcely equalling their own breadth; anterior row moderately procurved, median pair one-third smaller than hind-centrals, divided by a space equal to an eye's diameter; fore-laterals a third smaller than centrals of same row, separated from them by an interval less than half their radius, and from side-eyes of hind-row by fully one-half their diameter.

Falces dull lake-brown, conspicuous red-lake streak down inferior margin of fore-third; fringed with white hairs; conical, anterior kind (rather more) divergent vertical, profile arched.

Maxillæ chestnut-brown, inferior margin fulvous; nearly as wide as long, of somewhat even breadth, pointed, directed towards each other, divided by an interval nearly equalling breadth of lip.

Labium fuscous, margin amber colour; triangular, apex absconded, everted, less than half length of maxillæ.

Sturnum dark brown-lake; hairs fine, sparse; broad ovate.

Legs bright yellowish-orange, coxæ suffused with olive-brown; femoral, tibial and metatarsal joints of fourth pair almost entirely suffused with lake-brown; moderately strong, do not differ much in length or strength; hairs fine, somewhat sparse; spines black; about five strongish spines on superior aspect of femora, basal long, erect; tibiæ of I.—II., 2, 2 bristle-like spines beneath; metatarsi 2, 2 stronger spines on inferior surface; tibial joints of III.—IV. have 7 somewhat irregularly placed spines; metatarsi about 6, terminating with ring of 5.

Palpi colour and armature of legs tolerably long and slender.

Abdomen oviform, base roundly truncated, second half dilated, pointed; dull fuscous-black; thickly studded with small papillæ; hairs black, sparse; ventral region light olive-brown. *Vulva* reddish-brown, clouded with a deeper tone; triangular-obovate, moderately elevated; transversely rugose; superior half occupied by two large sub-pyriform foveæ, divided by a wide rapidly dilated septum, bordered by bead-like costæ; shows two mussel-shaped indentations, contiguous to costæ.

Single specimen.

FAM. TETRAGNATHINÆ.

Gen. TETRAGNATHA, Latr.

Tetragnatha quadri-notata, sp. nov.

Fem.—Ceph. th., long, 3·5; wide, 2·4. Abd., long, 5·2; wide, 3·5. Legs, 1, 2, 4, 3=19·3, 13, 11, 8 mm.

Cephalothorax fulvous, ocular area lake coloured; dorsal band dappled with olive-brown, lake vein-like streaks; bi-crenate, fore-half much the widest, ends abruptly at fovea; encloses four large subpyriform, fulvous spots, first pair encroach between dorsal and lateral eyes; sub-marginal band coloration of median. Some examples exhibit olive-brown stripes in radiating depressions; very sparingly furnished with hairs; pars cephalica depressedly convex, sides steep, roundly truncated, eye-prominence moderately developed; facial index exceeds lateral by one-fourth; transverse sub-oval fovea in centre; pars thoracica broad ovate, rises above plane of caput, posterior incline depressed; fovea elliptical, longitudinal, deep; normal grooves somewhat shallow; profile-line ascends at an angle of 30deg. from dorsal eyes to limit of caput, dips rather more abruptly to thoracic junction.

Eyes of moderate and nearly equal size; posterior row slightly procurved; centrals less than one-third larger than laterals, separated by an interval exceeding an eye's radius, removed from side eyes by their breadth; anterior row recurved; median pair visibly smaller than laterals, rather further from each other than they are from the latter pair—an interval sensibly surpassing their breadth; lateral eyes posited on a strong, common, dark tubercle, sub-touching.

Falces yellowish mahogany; sub-conical, base projects beyond plane of clypeus; fore-third divergent, plainly longer than the pars digitalis of palpus, fully as stout as the femur of a fore-leg, retreat sensibly.

Maxillæ ochreous-brown, pale apices; spathulate, superior angle rather prominent, inclined towards each other.

Labium darker shade; sub-oval, everted, nearly as long as wide, about half length of maxillæ.

Sturnum mahogany-brown; cordate, eminences opposite coxæ.

Legs fulvous, conspicuously spotted with light olive-brown and lake dots, latter predominate, annuli, olive-brown; suffused with dark-lake; markings vary somewhat in individual examples; fairly well furnished with outstanding, black hairs; all joints, except tarsi, tolerably well armed with yellowish, dark-tipped, slender spines. Superior tarsal claws—1st pair, evenly curved, 12 close teeth; inferior claw, sharply bent, free end directed forwards, 2 close teeth.

Palpi light fulvous, radial and digital joints ringed; palpal claw long, 7 teeth.

Abdomen oviform; light fulvous, posterior three-fourths of dorsal aspect more or less suffused with lake, flecked with rather large and small lake-coloured dots; larger spots have a dense shade; basal end somewhat unspotted; folium extends from about second quarter to anus, posterior two-thirds reddish-lake, marginal spots resolved into sinuate border; flecks on petiole intermixed with black-lake streaks and dots; spots on ventral region resolved more or less into longitudinal streaks; light ground colour encroaches from base dividing the wide quadrate median stripe from vulva and sides; spinners light purple. *Corpus vulvæ* red-chestnut; elevated, represents the segment of a circle, centre-third somewhat rounded, tumid, projects forwards, discloses beneath a moderately wide, dark bordered, sub-linear septum, intersecting two large mussel-shaped foveæ.

Several examples.

FAM. EPEIRIDÆ.

Gen. EPEIRA, Walck.

Epeira phalerata, sp. nov.

Fem.—Ceph. th., long, 3; wide, 2·5; facial index 1. Abd. long, 6; wide, 4. Legs, 1, 2, 4, 3=3·2, 7·4, 7·8, 5·5 mm.

Cephalothorax light olive-brown, speckled, especially about normal grooves, with olive-green; wide median and sub-marginal bands tinted with olive-green; eye-eminence reddish-brown; hairs white, silky, tolerably long and thick; cephalic part moderately convex, ocular eminence prominent; lateral index one-third shorter than facial; height of *clypeus* just surpasses interval of a fore-centre eye; thoracic part moderately convex, sides well rounded; posterior incline occupied by a trisected area, apex emarginate, limited by

thoracic indentation; caput and radial striæ somewhat shallow; profile contour represents an even arch, fore and hind slope about equally steep.

Eyes do not differ greatly in size, posterior centrals intermediate between anterior median pair and laterals; hind row moderately recurved; centre pair posited somewhat obliquely, divided by nearly an eye's breadth, about their space and a quarter from side eyes; anterior row strongly recurved; centrals separated from each other by less than their diameter and a half, perceptibly more than that interval from hind pair, rather less than their space from laterals; latter pair seated obliquely on low eminences, scarcely their radius apart.

Falces coloration of cephalothorax, basal half mottled; linear conical, gibbous in front, vertical, stout, in length fully equal to digital joints of palpus.

Maxillæ breadth somewhat surpassed by length, enlarged and prominently rounded forwards, inclined over *labium*, which is rather wider than long, round-pointed; organs dark chocolate-brown, apices fulvous.

Sturnum indigo-chocolate; broad-cordate, eminences opposite coxæ.

Legs light yellow-brown; femora marked with three wide annulations, lake-chocolate on fore-pairs; approximating to olive-brown, and interrupted on hind-pairs; patellary joints of third and fourth legs show two rings, first greenish; tibiæ two annuli, basal narrow, brown; anterior rings olive-brown, breadth more than half length of article; central and distal annulations of a greenish colour on metatarsi; anterior half of tarsi olive-brown; somewhat sparingly furnished with light hairs; spines yellowish, slender, moderately numerous; two first and two hind-pairs of about equal strength; thighs dilated, compressed; patellæ-tibiæ of I.—II. stout, latter cylindrical.

Palpi light yellow-brown, olive-brown annulations at base of humeral joints, and at extremities of cubital-radial; two fore-thirds of digital joints olive-brown; armature, light hairs, black spines.

Abdomen oviform, base pointed, somewhat aplanate above, projects well over base of cephalothorax; humeral tubercles depressedly conical; posterior pair transverse, low, rounded; hairs, white, short, thinly interspersed; dorsal region cream-colour, lightly clouded with olive-brown; closely speckled with small testaceous spots; dorsal band wide, basal fourth yellowish, mottled with brown, bounded by a testaceous line, uni-dentate; dentations encroach over, the otherwise cream-coloured tubercles; longitudinally interrupted by a wide, creamy, red bordered stripe, exhibiting a brown and red

medial mark; dorsal band somewhat compressed from humeral tubercles, widely dentate; fore-third of constricted part, speckled, cream colour, displays an olive-brown medial stripe, traversed by three streaks; posterior two-thirds yellowish-olive, mottled with olive-green; three small impressed dots arranged in a recurved line occur on verge of anterior slope; five pairs of blue-black impressed spots on constricted part of band; two fore-pairs most pronounced, form a trapezoid narrowest in front, on the cream-coloured area; lateral margins gamboge colour, speckled with the normal red dots; inferior half mottled with olive-brown, displaying a somewhat acute-crenate outline; fore-part of ventral aspect occupied by a brown, semi-circular patch, bordered on outer side with yellow; posterior part fuscous. *Corpus vulvæ* black-brown; represents a projecting, triangular, transversely rugulose, aplanate scape, more than twice as broad as long, margins wide, revolute, increasing in breadth at apex; superior margin of corpus developed into a rather wide membranous costa, curving somewhat over the rima genitalis, centrally depressed.

Single example.

Epeira obscurta, sp. nov.

Fem. ceph. th., long, 2·7; broad, 2; facial index, 1·5. *Abd.* long, 5; broad, 4. *Legs*, 1, 2, 4. 3=10, 9, 8, ·3, 6 mm.

Cephalothorax lake colour; hairs white, tolerably long and sparse; pars cephalica convex, roundly truncated, eye-prominence tolerably strong; facial index exceeds lateral by one-third; mamiform elevations moderately developed; *clypeus* perceptibly surpasses diameter of a fore-centre eye; pars thoracica somewhat depressed, well rounded; fovea sub-oval; normal grooves rather shallow; contour of profile represents a low arch.

Eyes tolerably small; posterior row straight; median pair posited obliquely on large circular, elevated fuscous spots, divided by an interval equal to twice an eye's breadth and a half, their space and one-third from laterals; anterior row only moderately recurved; centrals sensibly larger than hind pair, a little more distant from them than they are from each other, an interval visibly shorter than the space separating the hind centre eyes; laterals rather smaller than posterior median pair, divided by a space scarcely equalling their radius, seated obliquely on rather low eminences.

Falces light, dull ochreous-brown; hairs fine, whitish; sub-conical, vertical, profile curved, first half prominent, length equal to interspace between anterior lateral eyes; as stout as the pars femoralis of a fore-leg.

Maxillæ fuscous, apicus olive-green; breadth somewhat surpassed by length, obtusely pointed, directed towards each other.

Labium, sub-triangular, rather wider than long, more than half length of maxillæ, similar colour.

Sturnum fuscous; sparingly clothed with white adpressed hairs; cordate, perceptible eminences opposite coxal joints.

Legs brownish-gamboge, femora of two first pairs suffused with red-lake; of third pair central and distal reddish rings; femora of hind legs have anterior three-fourths suffused with lake-brown; indications of annuli on other joints; moderately strong; sparingly armed with whitish hairs and slender yellowish spines.

Palpi colour and armature of legs.

Abdomen broad oviform, depressed, humeral tubercles obtuse-conical, directed outwards and upwards; posterior tubercles obtuse; central of first row rather the longest, much the widest; tubercular projection of second row somewhat surpasses upper tubercle in size; lowest represented by a strong wrinkle; ground colour very pale raw-sienna, orange tinge, lightly suffused—mainly on folium, with a pale olive-brown; speckled with rather faint lake flecks; margins of folium somewhat undetermined, crenate, yellowish-olive; three pairs of impressed spots, fore-pairs form a trapezoid narrowest in front; centre pair largest and darkest; dorsal aspect laterally bordered by interrupted, deep olive-green bands; ventral colouration represents various shades of brown encroaching into lateral margins; *corpus vulvæ* brownish-yellow; sub-quadrate, elevated, deeply emarginate at base of scapus, which is of a light yellow-brown colour, projects nearly one-half its length beyond corpus, transversely wrinkled, aplanate, first half ovate, moderately wide; basal end of second half oval, about half breadth of first part, fore-half compressed, vermiform; corpus laterally margined by reddish-brown, ear-shaped, well-developed costæ, discloses at posterior end of shallow cavity bordered by costæ, two somewhat pyriform lobes.

Single specimen.

Epeira sub-flavida, sp. nov.

Fem.—Ceph. th., long, 4; broad, 3; facial index, 1.8. Abd., long, 8; broad, 6. Legs, 1, 2, 4, 3=12, 11.4, 11, 9 mm.

Cephalothorax deep fulvous, slightly speckled with chestnut-brown; eye prominence yellow; sub-parallel streaks on caput exhibit two spots; fovea dark; radii of thorax shaded with the normal rich chestnut; hairs yellowish, sparse; fore-half of cephalic part somewhat depressed above, squarely truncated,

ocular eminence prominent; lateral index nearly equals facial; depth of *clypeus* scarcely equals diameter of a fore-centre eye; thoracic part moderately convex, well rounded, fovea sub-oval; radial and caput-striæ tolerably strong; profile-contour represents a low arch; ocular prominence level.

Eyes on dark rings; posterior row recurved, line across hind margin of centre pair intersects laterals; median eyes separated by fully their own breadth, about their space and one-quarter from side eyes; anterior row rather more distinctly recurved; centrals visibly more than one-third larger than hind pair, rather more distant from each other; interval exceeding an eye's diameter than they are from posterior pair, less than their space from side eyes; latter pair nearly equal hind centrals in size, posited obliquely more than their radius apart.

Falces light fulvous, suffused with brown at extremities; few white hairs; conical, vertical; length equals breadth of anterior row of eyes; stout.

Maxillæ fulvous, shaded with brown; rather longer than wide at fore-end, pointed, inclined towards *labium*; latter organ has a deeper tone than *maxillæ*, one-half their length, oval.

Sturnum deep fulvous, spotted, border suffused with chestnut-brown; cordate.

Legs yellowish, perceptible green tinge, somewhat speckled with brown; light olive-brown annulations on fore-end of femora; patellæ colour of annuli; central and apical rings on tibial and metatarsal joints more or less obliterated; hairs yellowish, short; spines yellowish, base dark, moderately numerous; tibial spines less than diameter of article in length; legs of tolerable strength, I., II., IV. of nearly equal length.

Palpi fulvous; fore-end of pars digitalis red-chestnut; armature light hairs and spines.

Abdomen triangular-ovate, base rounded; humeral tubercles mamiform, project upwards and outwards; the aplanate dorsal slope terminates with a wide, somewhat compressed, pointed tubercle; inferior tubercular prominence more obtusely pointed; ground colour, bright chrome-yellow, more or less suffused with olive-brown, closely speckled with lake; folium tapers to posterior tubercle, margins acute-crenate, olive-brown; second half suffused with olive-brown; median streak narrow, dark, crossed by three arcuate bars. Acute apices of humeral tubercles red-chestnut, orange-yellow tips conspicuous. Four pairs of impressed spots, two anterior pairs blue-black, well-defined, represent a trapezoid narrowest in front. Abdomen crossed by a series of small, shallow,

pale, dark-centred fovea, most pronounced on lateral margins; ventral aspect fulvous, speckled, approximating to olive-brown about sides, which display several vertical pale olive-green lines. *Corpus vulvæ* represent a large triangular, longitudinally depressed scape, lying close to abdomen, apex directed towards sturnum; exhibits seven distinct yellowish stone-coloured wrinkles—the extremity, which was somewhat damaged, apparently terminates with three black, and several less pronounced reddish wrinkles; base of scapus roundly emarginate, project a brownish, gradually dilated septum, which curves round the incised margin of corpus; latter represent two olive-brown lobes—bordering the rima genitalis, surpassing in length, but otherwise not differing essentially from wrinkles of scapus.

Single specimen.

Gen. ARACHNURA, Vinson.

Arachnura trilobata, Urg.

Described and figured in the "Transactions of the New Zealand Institute." Vol. xvii. p. 37.

Average length of *female* about 9 mm., *male*, 5 mm.

Cephalothorax glossy black; prominently sculptured. *Legs* moderately long, rather slight; pale greenish-yellow, annulations broad, olive-black. *Abdomen* oval, moderately wide, convex, terminates posteriorly in three blunt, transversely wrinkled protuberances; centre-process much the longest and stoutest, flexible; glossy brown-black, median band tolerably wide, silvery, stained with lake, extends to base of tail-like process; cross-bar and apex of latter organ reflect the normal metallic lustre.

A female example of this handsome species was contained in *Mr. Morton's* collection. This species is not very uncommon in New Zealand; varies somewhat in the colouration of the legs and specific pattern.

Gen. ÆREA, Urg.

Ærea magnifica, sp. nov.

Mas.—Ceph. th., long, 2·5; broad, 2; facial index, 1·8. Abd., long, 3; broad, 2·8. Legs, 1, 2, 4, 3=7·3, 6·8, 6, 4 mm.

Cephalothorax ochraceous, green tinge; cephalic region suffused with purple-lake; thoracic groove, lateral borders of caput, and thorax stained with lake-purple; studded with papillæ, the larger grouped somewhat in lines; hairs dull silvery and deep golden, somewhat sparse; sub-aplanate, sides tolerably abrupt, base prominently rounded, lateral compression at caput moderate; frontal angles stout, trape-

zoidal, directed forwards and outwards, about as long as broad in front; *clypeus* pointed, retreating, depth fully equal to space occupied by anterior centre-eyes; thoracic indentation subcruciform, shallow; radial striæ faint; caput grooves more defined; profile line slopes back from dorsal eyes at an angle of 30 deg. beyond first half, base rounded; dips more abruptly across eye region.

Posterior row of *eyes* very strongly procurved; median pair placed obliquely on well-developed, dark-ringed tubercles, which are posited on crown of caput, separated by an interval equalling space occupied by fore-centre eyes; removed from laterals by their space and a quarter, and from anterior median pair, which they equal in size, by scarcely their space; anterior row visibly procurved; median eyes seated on tolerably prominent sub-tubercular eminences, divided by an interval fully as wide as their diameter, plainly more than their space from side eyes; laterals placed less than the radius of a hind eye apart at extremity of frontal projections; fore and hind eyes are respectively the largest and smallest of eight.

Falces brownish, suffused with purple-brown; transversely rugose; sub-conical, retreat rather sharply, base barely in line with plane of clypeus, length about equal to their space.

Maxillæ yellowish-chestnut, apices pale slate; broad-spathulate, inclined towards each other.

Labium shade darker than maxillæ; triangular.

Sturnum brownish-purple, ovate, moderately studded with papillæ, projecting hairs.

Legs, anterior pairs yellowish-chestnut, lake-brown reflections, femora clouded with dark-brown, evanescent, reddish-chestnut annulations on the patellary and tibial joints; posterior pairs yellow-orange, second half of femora occupied by lake-brown rings; tibiæ and metatarsi have interrupted lake-brown basal annulations; two first pairs of nearly equal stoutness, much the strongest; tarsus of first leg rather shorter than metatarsus, somewhat elevate, furnished with close-lying black hairs; armature, light, fine, sparse hairs; light brown, tolerably strong spines; 7 or 8 on femoral joints, including two stout, curved spines on superior aspect of fore-half; patellæ 3; tibiæ and metatarsi of I.—II. about 16 long spines, of IV. respectively 6-10; third pair rather more sparingly spined.

Palpi, ochreous-yellow, wide, broken, fuscous rings on humeral joint; latter article compressed, fore-half incrustated; length equal to the cubital and radial joints together; pars cubitalis oval, projects a moderately strong bristle; pars radialis campanulate, plainly longer and wider than former article, armed with numerous long bristles. Lamina

ochreous-yellow, passing posteriorly into lake brown; rather sparingly haired; broad-oval, base developed into a turgid costa, curved sharply forwards; posited immediately in front of basal end of costa, outer side, is a large, conspicuous, lake-black, crescent-shaped, sub-free process. Bulbous genitalis mahogany-brown, reticulated—viewed from front, sub-obovate, fore-third deeply cleft beneath lamina; a moderately long, orange-brown, linear apophysis curves over the somewhat pointed base; most observable appendages beneath bulb are two strong, black close-lying, curved, spine-like apophyses, projecting from outer margin of concavity transversely across bulb.

Abdomen sub-aplanate, sides rugose, base rounded in outline; tapers from humeral tubercles to posterior-third, which is constricted to rather less than half the greater breadth; basal margin studded with a series of six small tubercles, centre pair greenish-yellow, much the largest, visibly more distant from humeral tubercles than they are from each other; humeral tubercles of moderate size, obtusely conical, opalescent, streaked with lake; upper side exhibits a remarkable pearl-like spot; integument developed immediately behind humeral tubercles into sub-tubercular elevations not differing very essentially either in form or colour from the former; projecting from second quarter of dorsal aspect is a large backward curved process, resembling the horn of a rhinoceros—about as wide at base as long; length equal to more than one-fourth of abdomen; orange-ochreous, speckled with red-brown, apex yellow; posterior side exhibits a yellow, white-haired medial stripe, bordered with a dark edge, rising from posterior third is a similar but much smaller process, flanked by two pearl-like spots; hind tubercular projections in two rows; laterals longest, somewhat elongated; directed outwards, lake-brown, pale median streak; centre tubercle much the smallest of the row, obtuse-conical, tubercle of second row pointed, rather wider than long, fully half length of laterals; two centre tubercles yellow, marked with red-lake; ground colour blue-black; the pattern—which resembles the handsome border of an Oriental shawl—is of an orange colour picked out with lake, clothed with golden and silver hairs; basal cross-band occupies one-third of dorsum; fore-half of band exhibits a series of circles enclosing blue spots, separated by about their own diameter; second half represents a centrally interrupted band of somewhat even width, figured with blue and lake sinuate lines; design on posterior two-thirds consists of a series of intricate lines enclosing two unfigured sub-oval patches, which flank the larger process.

Two male specimens.

FAM. THOMISIDÆ.

Sub-FAM. PHILOLRONINÆ.

Gen. PHILODROMUS, Wlk.

Philodromus luteo-virescens, sp. nov.

Fem.—Ceph. th., long, 3·5; broad, 3. Abd., long, 5; broad, 3. Legs, 1—2, 4, 3=16, 12·5, 11·5 mm.

Cephalothorax ochreous-yellow—probably tinged with green; facial space ochraceous; rather sparingly furnished with short, yellowish, and black hairs; pars cephalica moderately convex, frontal line sensibly rounded; height of *clypeus* equal to three-fourth diameter of a fore-centre eye; pars thoracica broad-ovate, moderately convex; indentation longitudinal; normal grooves faint; profile line inclined and visibly arched across caput, dips to thoracic junction at an angle of 50 deg.

Posterior row of *eyes* sensibly procurved, equi-distant—centrals slightly surpass laterals in size—posited on rather low, fuscous tubercles, directed somewhat backwards; anterior row perceptibly recurved; centrals fully one-third larger than hind pair, closer to one another—scarcely more than an eye's breadth—than they are to the latter pair; lateral eyes placed on moderate, dark tubercular eminences, divided from each other by an interval nearly equalling their diameter and a half; fore-eyes separated from anterior centrals by scarcely their radius.

Falces light ochreous; conical, vertical, base projects beyond plane of clypeus; space exceeds breadth of hind row of eyes, length equal to about three-fourths of space.

Maxillæ colour of coxæ; gradually dilated, rounded, strongly convex, moderately inclined towards each other.

Labium tinged with green; length surpassed by breadth, rounded.

Sturnum greenish-yellow; broad-cordate.

Legs ochraceous, green tinge; patellary, tibial, and metatarsal joints have lake reflections; metatarsi and tarsi longitudinally streaked with lake-brown; moderately furnished with whitish and black bristle-like hairs; slender bristles and spines on femoral, tibial, and metatarsal joints; tibial spines of first pair one-third length of article. Scopula rather sparse; claw-tuft moderate. Tarsal claws—1st pair, tolerably strong, about 20 somewhat even comb teeth, free end sharply curved.

Palpi paler shade than falces, pars cubitalis tinged with lake. Palpal claw short, well curved; 5 teeth.

Abdomen elongate-oviform; yellowish pea-green; dorsal streak, evanescent posteriorly, moderately wide, defined by somewhat faint yellowish flecks. Hairs sparse, short, whitish

and black. On ventral surface is a conspicuous patch of black hairs, flanked by spots of white, visible amongst the hairs is the *vulva*, which represents a simple depressed area occupied by two dark foveæ, intersected by a)shaped septum. Single example.

FAM. LYCOSIDÆ.

Gen. LYCOSA, Ltr.

Lycosa albo-pilata, sp. nov.

Mas.—Ceph. th., long, 2·8; wide, 1·8. Abd., long, 3; wide; 1·7. Legs, 4, 1—2, 3=8, 6·5, 6 mm.

Cephalothorax brown-pink, yellowish hue round margins; stretching across thorax are two broad, fuscous bands—outer border sinuated, the deeper fuscous shade encroaches more or less over sides of caput and ocular area; lateral margin dark, narrow; hairs white and orange-yellow, dense, patchy, short, black, and erect on dorsal line; ovate, lateral margins of caput gradually compressed forwards; pars cephalica applanate, sides abrupt, squarely truncated; *clypeus* in depth scarcely equals interval separating fore-central eyes; pars thoracica elevated, indentation longitudinal; radial striæ well defined; caput grooves shallow; profile line dips abruptly posteriorly, slopes slightly forwards with a visible curve to second row of eyes.

Anterior row of *eyes* moderately procurved; centre pair exceeds side pair by nearly one-third, visibly more than the diameter of an eye apart, less than that interval from laterals; eyes of second row greatly surpass in size that of first line, interspace not equal to an eye's diameter and a half; dorsal pair more than one-half as large as the latter pair, removed fully one-fourth further from each other than they are from eyes of second row.

Falces brownish-yellow, second half clouded with dark olive-green; sub-conical, fore-third divergent, retreat sensibly.

Maxillæ moderately enlarged forwards, sub-elliptical, curve somewhat over *labium*, which is about as wide as long; rounded; organs light yellowish-brown, slightly suffused with olive-green.

Sturnum light yellow-brown, margins stained with brown; ovate.

Legs greenish stone colour, passing into olive-brown towards extremities, brown-pink reflections along superior aspect; three ill-defined olive-green rings on femora, tibiæ, and metarsi; indications of annuli on patellary joints; hairs erect, black, and yellowish; fairly-well armed with spines on femoral, tibial, and metatarsal joints.

Palpi armed with black bristles and white hairs; pars humeralis greenish stone colour, olive-brown basal and apical rings; length fully equal to the two preceding articles, of even breadth, projects two long bristle-like spines on medial line; four short spines form a transverse group on fore-end; cubital joint ochraceous, dusky clouds; viewed from above, elliptical; pars radialis olive hue, clouded, cup shape, quite one-third shorter than former article; digital joint surpasses humeral in length; lamina creamy-ochreous, figured with two interrupted, brownish cross bars; hairs fine, sparse; ovate. Bulbous genitalis brown, turgid behind, membranous in front, margin drawn to a sharp point on outer side; viewed from beneath, discloses three easily perceptible appendages projecting from within; nearest to basal end is a semi-transparent, membranous, tapering organ; immediately beyond are two red-brown, dark-bordered, large, sub-linear apophyses of about equal length and breadth; first and inner apophyses stretch across face of bulbous to anterior third of clava, posterior side concave, transversely rugose, margins incurved, apex truncated, fore-angle curved upwards; hind-angle prolonged, bent downwards; outer margin produced about midway into a short, pointed, backward-curved process; front apophysis crosses hind and curves back on posterior side of the above-mentioned process; somewhat aplanate above, convex on inferior side, apex moderately pointed.

Abdomen oblong-ovate; dull, greenish, gamboge colour, moderately spotted and streaked with olive-black; spots on posterior incline resolved into somewhat undetermined arcuate lines; outline of folium evanescent; latter design has a deeper tone than ground colour, sharply constricted at posterior fourth; basal half exhibits a broad triangular mark, dappled with black-brown, encloses a linear-lanceolate figure, thickly clothed with white and ochreous-yellow hairs, latter predominate round margin. Abdomen clothed with short, whitish and yellowish hairs, increasing in length on lateral margins.

Fem.—Ceph. th., long, 3; broad, 2.1. Abd., long, 3.1; broad, 2.1. Legs, 4, 1—2, 3=10, 7.7, 6.7 mm.

Cephalothorax brown-pink; thoracic part displays two broad brown bands—outer border undulating, encloses a tapering dorsal mark; ocular area and sides of caput clouded; tolerably well clothed with white and ochreous-yellow hairs, few black, bristle-like hairs on caput; ovate moderately compressed forwards; facial index surpasses lateral by one-fourth; pars cephalica depressedly convex; sides abrupt; height of *clypeus* exceeds interspace between fore-centre eyes; dorsal aspect of thoracic part aplanate, sides somewhat steep; groove longitudinal; radial striæ tolerably well

defined; contour of profile rises from stalk at an angle of 60deg.; slopes visibly across occiput; slightly curved between third and second row of eyes.

Anterior row of *eyes* procurved; median pair sensibly larger than laterals; one-third further from each other than they are from side-eyes—a space about equal to their own diameter; eyes of second row tolerably large, rather more than the breadth of an eye from each other; dorsal pair visibly smaller than eyes of second line, removed about one-third further from one another than they are from latter pair.

Falces brownish-yellow, two fore-thirds, suffused with olive-brown; conical, inclined sensibly towards maxillæ; base projects moderately beyond plane of clypeus; length slightly exceeds their space, and nearly equals radial and digital joints of palpus together.

Maxillæ brownish-yellow, clouded, pale round apex, moderately dilated, well rounded, curved somewhat towards each other.

Labium shade darker; about as broad as long, sub-oval.

Sturnum dull brown-pink, clouded round margins with olive-brown; ovate.

Legs light brownish-yellow, sensibly tinged with olive-green; annuli olive-green, more or less interrupted, not well defined; about 4, 2, 3, 3 rings on the respective joints; armature does not differ essentially from males.

Palpi and legs concolorous, annulations somewhat broken, wide; two on humeral, single rings on three following joints; hairs light; pars humeralis armed with five strongish spines on superior aspect, three shortest arranged in a transverse line at fore-end, cubital joint rather shorter than penultimate article, projects a slender bristle; radial joint visibly shorter than digital, two latter joints furnished with bristles.

Abdomen oblong-ovate; rather thickly clothed with close-lying, white and yellow-ochreous hairs; more sparingly with erect black; ground colour brownish-yellow, tinge of olive-green; fuscous spots and marks, more specially on lateral borders of anterior half; indications of cross arcuate lines on posterior incline; fore-half displays an oblong-lanceolate figure thickly covered with white and yellow-ochreous hairs, latter occur chiefly on margin, which exhibits three pairs of fuscous dots; terminal third much compressed by a V-shaped dark-brown mark. *Corpus vulvæ* red-chestnut; plano-convex elevation, transversely wrinkled, apex truncated; margins at base prolonged forwards and inwards towards each other, convex, apices rounded, glossy brown; orifice of corpus closed by a large, protruding, creamy-brown, tumid, tongue-like

scape, nearly as wide as long; projecting very perceptibly beyond lateral elongated margins.

Lycosa festiva, sp. nov.

Fem.—Ceph. th., long, 3·8; wide, 2·9. Abd., long, 3·8; wide, 2·5. Legs 4, 1, 2, 3=14·3, 10·5, 9·9, 9 mm.

Cephalothorax yellow-ochreous; a bright red-lake figure tapers from hind row of eyes to limit of caput, lake colour encroaches over facial space; thoracic part displays two wide fuscous bands—tri-serate on outer side, curving from base to fore-end of caput; lateral margins lightly pencilled with lake; hairs white, somewhat sparse, patchy on dorsal line; six strong bristles project from margin of clypeus; broad ovate; pars cephalica sub-quadrate, sides roundly impressed, ocular region somewhat elevated; *clypeus* in depth equal to rather more than one-half of space occupied by anterior row of eyes; pars thoracica moderately convex; groove longitudinal; radial striæ fairly well defined; contour of profile ascends from thoracic junction at an angle of 40 deg., slopes slightly forwards, dips abruptly from verge of second row of eyes.

Eyes on black spots; anterior row strongly recurved; centrals about twice as large as side-eyes of same row—latter pair broad-oval—more distant from one another than they are from laterals, an interval visibly less than their radius; eyes of second row sensibly larger than fore-centrals, divided by a space equal to three-fourths their diameter, less than twice that interval from anterior median pair; dorsal eyes do not differ essentially in size from fore-centrals, posited obliquely on rather strong, lake-black, lateral processes, interval separating them nearly equal to twice the space that divides them from eyes of second line.

Falces ochreous-yellow, traversed by a wide, olive-green, centre band; furnished with white and long black hairs; conical, retreat visibly, stout; slightly shorter than the pars digitalis of palpus.

Maxillæ straw colour; breadth surpassed by length; superior angle rounded; inferior, obliquely truncated; inclined towards one another.

Labium shade deeper than maxillæ, wider than long, sub-circular, absconded.

Sturnum ochreous-brown, wide brown border; broad oval; fairly well clothed with white hairs.

Legs, inferior aspect dark stone colour, densely clouded with olive-green; superior surface ochreous-yellow, sharply defined from lower; two first pairs suffused—above, with lake; thighs of third pair somewhat spotted, of fourth suffused with lake; patellary joints streaked; tibiæ, metatarsi

and tarsi spotted; hairs white and yellow, fine, erect, black, sparse; about 6 black spines project from femora; tibial joints of first and second legs have 2, 2, 2 beneath; metatarsi 2; spine armature of hind pairs more numerous and irregular.

Palpi dull gamboge colour, marked with olive-green and lake spots or broken annuli; hairs whitish, sparse; black, bristle-like spines on all joints; pars humeralis of even width; cubital joint sub-campanulate; radial shorter and stouter than digital.

Abdomen oviform; hairs white, tolerably thick, erect, black, sparse; gamboge colour, brownish tone obtains on posterior incline; sparingly spotted with reddish dots; medial figure broad, gradually dilated from base, abruptly truncated, unicrenate at termination of second third; encroaches into second half of dorsum; of a soft fuscous black, laterally bordered by a dense, narrow fringe of whitish-yellow hairs; indications of brownish, longitudinal streaks on hind slope; lateral margins exhibit two dusky longitudinal stripes; ventral region bounded by brown dots; spinners brown-pink. *Vulva* normal shade, represents a simple longitudinal elevation, bounded below the genital aperture by a moderately developed, transverse ridge.

Single example.

Fam.—ATTIDÆ.

Gen.—PLEXIPPUS, C. Koch.

Plexippus validus, sp. nov.

Mas.—Ceph. th., long, 5; broad, 4; height, 2.2. Abd., long, 4.5; broad, 4. Legs, 1, 4, 2, 3=13, 11.4, 11, 10.8 mm.

Cephalothorax lake-brown, densely suffused with black; hairs sparse, black, orange-red, and white, two latter fine, not very perceptible; iredies orange; clypeus fringe yellowish sparse; rugulose; pars cephalica plane, limited by a tolerably deep transverse indentation, sides rather abrupt; depth of *clypeus* about equal to interval separating anterior centre eyes; pars thoracica moderately dilated, one-third longer than cephalic part.

Anterior row of *eyes* moderately recurved, laterals fully one-third size of centrals, removed from them by an interval scarcely equalling their own diameter; median pair about half that distance apart; eyes of second row visibly closer to fore laterals; dorsal eyes rather smaller than laterals, equidistant from a row shorter than cephalothorax at that place, square of ocular area one-third wider than long.

Falces blackish-lake; transversely rugose; vertical, flatly convex, of somewhat even breadth, divided by a rather wide

obovate space; extremity of falces somewhat squarely truncated, anterior fourth—inner side drawn out into an obtuse, sharply upturned, flattish process, whose apex is twisted forward, project two black tooth-like sub-processes; inner row of teeth long, close together, stouter than outer; latter project from a strong subquadrate process, broader than long; centre tooth longest and stoutest.

Maxillæ lake-chocolate, fading into a brownish tone at angles; anterior half sharply dilated—especially superior angle; rounded, slightly inclined towards each other.

Labium conical, more than half length of maxillæ, colouration similar.

Sturnum brownish-yellow, approximating to olive-green; hairs whitish; ovate.

Legs, femoral joints fuscous-lake; patellæ and tibiæ of I.—II. lighter shade; metatarsi orange-lake, white basal and distal annulations of a deeper tone; patellary and tibial joints of III.-IV. legs have a more yellowish shade than the fore pairs. indications of rings on tibiæ; metatarsi and tarsi brownish-yellow, dark annulations on former articles. White hairs short, sparse; black, numerous, long; fairly-well armed with spines. Legs stout I.-II., III.-IV. of about equal strength; patella and tibia of first leg cylindrical, slightly surpass cephalothorax in length, latter article one-sixth longer than former; metatarsus and tarsus just exceed tibia.

Palpi and legs concolorous; well armed with long, pale yellow and black hairs; first part of the pars humeralis compressed, second half gradually incrassated in length, exceeds by one-fourth cubital and radial joints together; pars cubitalis, viewed from above, sub-quadrate, radial joint somewhat shorter and narrower than latter article, obliquely truncated beneath, outer margin prolonged forwards into a into a black spine-like down-curved process, equal to half length of joint; pars digitalis equals humeral joint in length; lamina elongate-ovate, convex, well haired; genital bulb yellowish-brown, clouded with olive-brown, well developed, conical, apex projects backwards into cavity beneath radial joint; base truncated, of a creamy-brown colour, encircled by a black, corneous, spine-like costa, broad on inner side; concave, centre elevation deeply incised.

Abdomen ovate; dorsal region grayish-fulvous, pattern without any very determinate limits; more thickly, but less brightly haired than female.

Mas. max. length, 10.5; min. 8. *Fem.* max. length, 9.8; min. 8 mm.

Fem.—Ceph. th., long, 4; wide, 3. $\bar{\text{A}}\text{bd.}$, long, 5.2; wide 3.8. Legs, 4, 3, 1—2=9, 8, 7.5 mm.

Cephalothorax deep lake, passing into lake-black on borders of eye area and sides. Hairs long, black, orange-red and white; former mostly on fore-part of caput; clypeus fringe somewhat sparse, whitish. Elevated, cephalic part plane, inclined, limited by a very perceptible transverse depression; *clypeus* in height scarcely equal to radius of a lateral eye; thoracic part only moderately dilated, sides rather abrupt; scarcely one-third longer than cephalic part; dips at an angle of 40deg. to stalk.

Eyes do not differ essentially from males, except that in the first row they are comparatively and actually rather closer to each other.

Falces lake-brown; few white hairs; transversely rugulose; of somewhat even breadth, project forwards at base, vertical; in length equal interspace between lateral eyes.

Maxillæ chocolate-brown, inferior angle pale, few black hairs; dilated somewhat rapidly at second half, rounded.

Labium three-fourths length of maxillæ, similar colour, conical.

Sturnum light fulvous; hairs sparse; ovate.

Legs yellow-brown—first pair somewhat suffused with lake—three olive-brown annuli on femora, basal ring narrow, central and apical broad; indications of rings on patellary joints, tibiæ, basal, and pre-apical annulations; metatarsi have basal and distal. Patella and tibia of first leg equal in length, together one-fourth longer than metatarsus and tarsus. Femoral and patellary joints armed with short, black spines; tibiæ of I.—II. have 2, 2 beneath second half, 1 side spine; metatarsi 4, 4 at each extremity; tibiæ of III.—IV. about 4 spines towards fore-end; metatarsal joints 4 at base. Tarsal claws—1st pair, long, somewhat depressed in centre, free end well curved; outer claw 12 or more tolerably stout teeth; inner about 30 fine, close teeth; claw-tuft dense, rather longer than claw.

Palpi colour and armature of legs.

Abdomen ovate—somewhat more pointed than male—base squarely truncated; most of dorsal aspect occupied by a pale, brownish fawn-coloured, crenate, lanceolate figure, stained with blue-black; median band extends from anus to anterior fourth, represents a series of about five brown chevrons, of irregular form, apices directed forwards, terminates with a trapezoidal mark. Hairs, coarse black, white, and orange-red, two latter tolerably thick, growing chiefly in angular lines on dorsum; somewhat sparse on lateral margins, which are light brown, shading rapidly into black-brown about border of folium. Vulva brownish-amber colour; slightly

elevated, oval; area occupied by involute, convex costæ, enclosing shallow, reddish foveæ, intersected by a rather narrow septum; costæ dilated on superior side of corpus.

Two males and four females of this fine species were contained in *Mr. Alex. Morton's* second collection; they varied somewhat in density of coloration, and in clearness of outline of the specific pattern. Darkest male and lightest female described.

NOTES ON THE USE OF THE SQUARE-SET SYSTEM OF TIMBERING IN MINES AT ZEEHAN AND DUNDAS.

ILLUSTRATED BY A MODEL SQUARE SET.

BY A. J. TAYLOR, F.L.S., F.R.G.S.

ELGIN MARBLES.

BY MONTAGUE RHYS-JONES, C.E.

NOTES ON SOME TASMANIAN INSECTS.

BY A. MORTON, F.L.S.