

ground-colour greenish, while the other was brownish. At the same time, and on the same plants, a considerable number of larvæ, resembling the above in shape and size, were collected. Some of these had the ground-colour green, with very faint dorsal and sub-dorsal lines, the dorsal area being green, or only faintly clouded with black. Others had the ground-colour green, while the dorsal and sub-dorsal lines were distinct and black, and the dorsal area between the sub-dorsal lines was filled with alternate light and reddish-brown blotches. The two last forms had their other characters as in the first-described form, and they may be immature stages, or the larva may be a variable one.

ART. X.—On New Species of Araneidea.

By A. T. URQUHART.

[Read before the Otago Institute, 17th November, 1886.]

Plates VII., VIII.

Fam. EPEIRIDÆ.

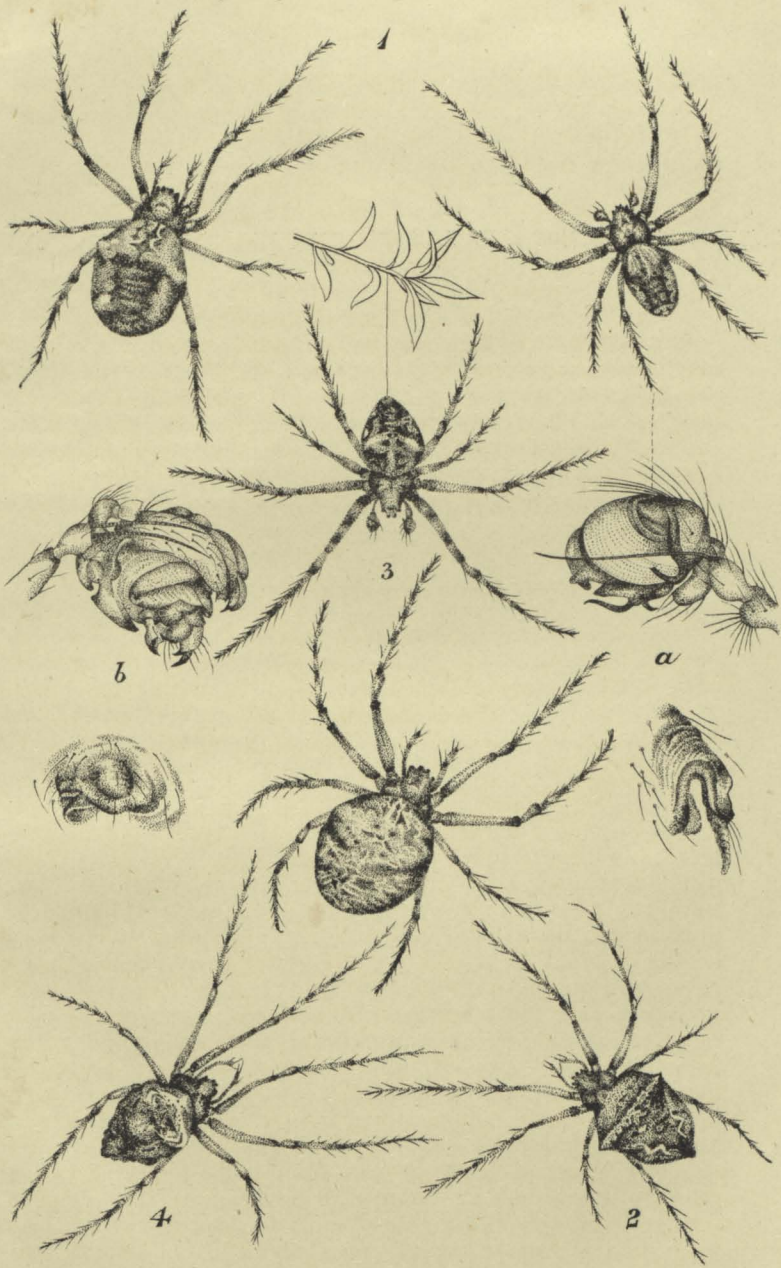
Genus *Epeira*, Walck.

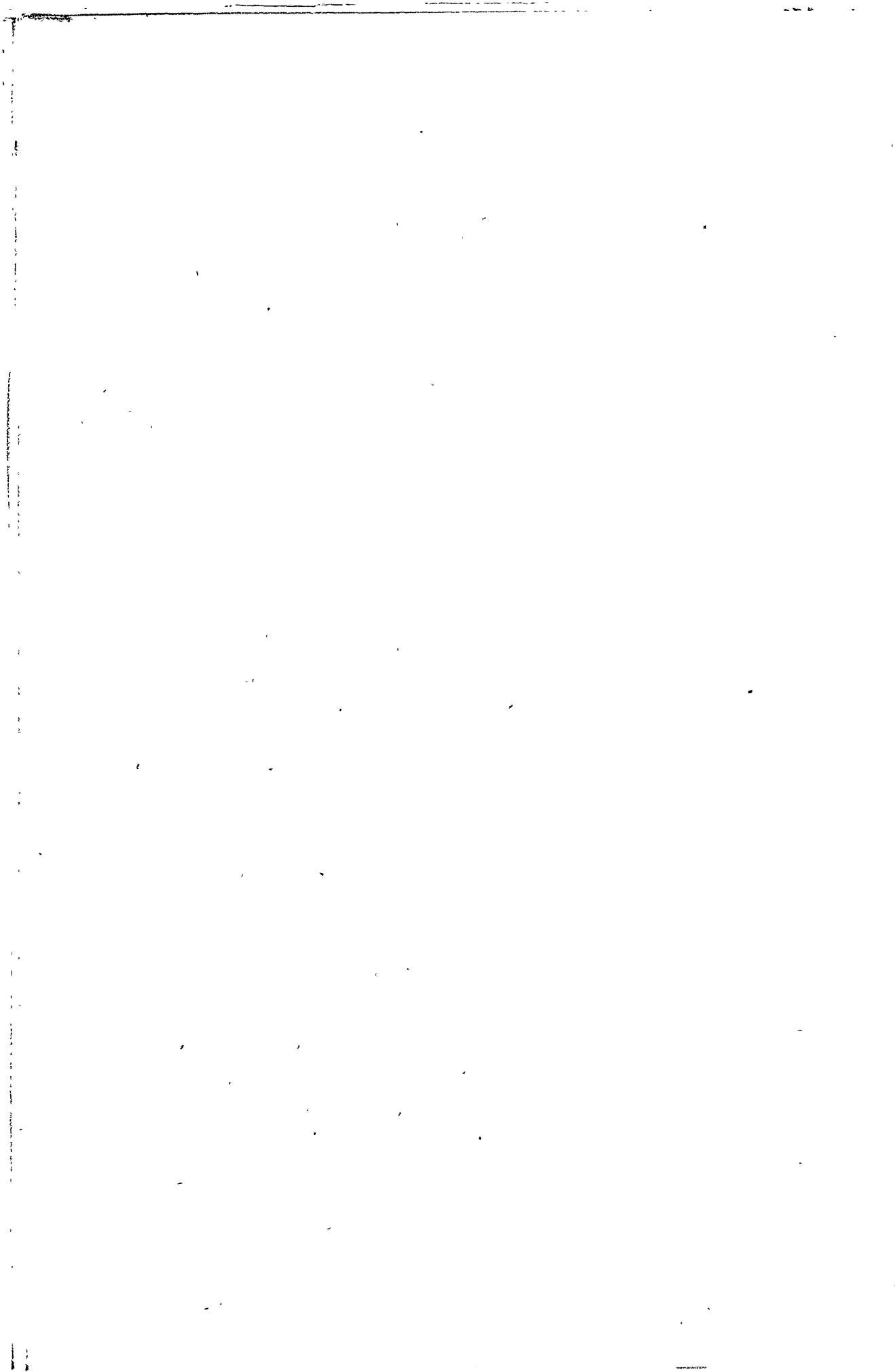
Epeira corrugatum, sp. nov. Plate VII., fig. 1.

Female.—Ceph. th., long, 4; broad, 4; facial index, 2. Abd., long, 8; broad, 7. Legs, 1, 2, 4, 3 = 17, 16, 14, 9 mm.

Cephalothorax chocolate-black; short, adpressed, yellowish hairs; in length equal to genua and tibiæ of a leg of 4th pair; depressed, sides rounded, moderately constricted forwards; ocular eminence not very prominent, mammiform prominences on caput slightly developed, lateral index (*i.e.*, length of caput from striæ to fore-angle) nearly equals space between a posterior lateral eye and the hind-central next to it; median indentation on thorax transverse, radial and caput striæ rather faint; contour of profile forms an undulating curve, rising at occiput, which slopes abruptly forwards; height of *clypeus* nearly equals facial space.

Fore and hind rows of *eyes* moderately recurved; posterior centrals separated by an interval equal to about twice their diameter, nearly twice their space from hind-laterals; anterior centrals about one-fourth larger than posterior, placed rather further from each other—nearly their diameter and a-half—than each is from the hind-central next to it; lateral eyes seated moderately obliquely on low tubercles, nearly their diameter apart.





Legs rather slender, femora dark lake-colour, suffused with brown, convex above, spines; genua and tibiæ grooved, these joints, with metatarsi and tarsi, have a dark lake-brown hue, faintly annulated with chocolate-brown, rings of white and black hairs; besides irregular spines above, tibiæ have a double row of 6, metatarsi two rows of 4 yellowish spines beneath. Superior tarsal claws—1st pair, 9 comb-teeth, increasing in length and strength; inferior claw, 2 close teeth.

Palpi slender, dark chocolate-brown, short yellowish bristles, palpal claw moderately curved, 9 teeth, directed forwards.

Falces conical, vertical, convex, project forwards in front, not equal to femora of first pair in stoutness, bright lake-brown.

Maxillæ nearly as broad as long, obliquely truncated, inclined towards *labium*, which is somewhat triangular, more than half length of maxillæ; organs chocolate-brown, light apices.

Sternum cordate, eminences opposite coxæ brown-black, light hairs.

Fore part of *abdomen* somewhat pointed, carinate, moderately convex, projects over base of thorax; posterior half broad, semi-oval, depressed, transversely corrugated, incurvate; marginal zone directed inwards, longitudinally corrugated; anterior tubercles applanate, apex rounded, directed outwards; posterior tubercles, which project from transverse wrinkles, are broad, rounded, applanate, directed backwards; in first row are three of about equal size, beneath central tubercle there is another rather larger, beneath latter a small one; integument black-brown, base and lateral margins more or less spotted with dull creamy-buff coloured flecks; on dorsal surface is a large, slightly flecked black-brown, acute-crenate, leaf-like mark, the black, buff-margined, carinate eminence forming the petiole; sparsely clothed with very short, close, and erect hairs. On ventral surface is a large greenish-brown, transversely wrinkled, cordate mark, with two large buff spots beneath branchial opercula, and two above spinners. Fore part of *epigyne* represents a yellowish, transversely-wrinkled, semicircular, cucullate membrane, centrally produced into a large, transversely wrinkled lip with tumid incurved margins, its greatest diameter is across centre, from whence it forms a moderately acute angle, apex produced into a clear yellow vermiform process, equal to three-fourths of lip in length; lateral margins of hood, on posterior side, involute within dark spotted concavity.

Male.—Ceph. th., long, 4; broad, 3.5. Abd., long, 4.5; broad, 3. Legs, 1, 2, 4, 3 = 15, 14, 11, 8 mm.

Cephalothorax mahogany-colour, hairs sparse, yellowish; sides prominently rounded, laterally constricted at caput, which is rather depressed, ocular eminence prominent; median indentation longitudinal, oval, deep; normal grooves slight.

Posterior central *eyes* separated by a space equal to their diameter and a half; anterior centrals rather more than that interval from each other, and about their diameter from hind-median eyes, separated from fore-laterals by about their space and a quarter; laterals on dark tubercles, about their radius apart.

Legs yellowish, moderately defined brown annulations; 1-2 pair rather stout; strong curved process on outer side of coxæ of 1st pair; armature sparse light hairs, spines numerous, yellowish, base dark, cluster of 8 short curved spines near apex of tibiæ of 2; 3-4 rather slender; long spines on inferior surface of femora, especially of 4th pair. Superior tarsal claws—1st pair, 9 teeth, 4 terminal strong; inferior claw, 2 close teeth.

Palpi yellowish, humeral joint stout, tuft of bristles project from tumid eminence on inferior surface near apex of article; cubital joint broad, somewhat spathulate, projects at apex a long strong bristle; radial joint shortest, articulated to inferior surface of cubital, produced on outer side into a large linear-oval yellowish process; digital joint broad-oval, convex and moderately hairy externally, convexities directed towards each other, base of convexity produced on outer side into a rather long, stout, curved apophysis of a dark-reddish colour; bulb, viewed from somewhat beneath, represents a series of bright red-brown dark-margined folds; terminates with several large tumid, introflexed, somewhat lip-shaped dark lobes; near apex, directed forwards, is a horizontal, dark, curved membranous apophysis, a prolongation of an upper fold, behind this apophysis there is a short process, curved backwards.

Falces slender, vertical, yellowish.

Abdomen somewhat oviform, specific pattern and coloration does not differ essentially from female.

Pairs about November. Cocoon sub-globose, composed of dark-green silk of a loose texture, about two metres in diameter; eggs pinkish, spherical, 350-645 in number.

Te Karaka, Auckland, A.T.U. Otago, F. Goyen.

Epeira pocillator, sp. nov.

Female.—Ceph. th., long, 5; broad, 4; facial index, 2.2. Abd., long, 10; broad, 8. Legs, 1, 2, 4, 3=17, 15, 13.5, 9.5 mm.

Cephalothorax lake-chocolate colour, hairs adpressed, sparse, yellowish; rather depressed, sides not prominently rounded, moderately constricted at caput, sides of which are not very abrupt, lateral index equals space between a hind-lateral eye and the hind-central next to it, ocular eminence fairly prominent, mammiform eminences moderately developed; median

indentation transverse, normal grooves not strongly marked; contour of profile horizontal above, dips moderately posteriorly and anteriorly, rising at occiput. Height of *clypeus* rather exceeds space between fore-central eyes.

Fore and hind row of *eyes* moderately recurved; four centrals of equal size; posterior pair separated by a space equal to a diameter and a half, rather less than that interval from anterior centrals, which are rather further from one another than are the former pair, nearly twice their space from fore-laterals; side-eyes seated obliquely on small tubercles at angle of caput, about radius of an anterior eye apart, latter exceeds posterior eye in size by about one-third.

Legs rather slender, femora of 1-2 lake-coloured; 3-4 suffused with brown, convex above, few spines; genua and tibiae double-groove above, latter joints, metatarsi and tarsi have a yellowish tinge, brownish annulations; armature sparse yellowish hairs, spine at apex of genual joint, double row of 6 beneath tibiae, and of 5 beneath metatarsi. Superior tarsal claws—1st pair, 10 comb-teeth, increasing in length and strength; inferior claw, 2 close teeth.

Palpi moderately slender, yellow-brown, yellowish hairs and slender spines; palpal claw 10 comb-teeth, 2 basal small.

Falces conical, vertical, convex, prominent at base in front, nearly as thick as base of femora of 1st pair of legs, brownish-lake, few yellowish hairs.

Maxilla nearly as broad as long, obtusely pointed, inclined towards *labium*, which is triangular, about as long as broad; organs chocolate-brown, pale apices.

Sternum cordate, eminences opposite coxæ; black-brown.

Abdomen oviform, projects over base of cephalothorax, depressed above, sensibly convex; lateral margins rather deep, convex; fore-tubercles moderately prominent, apices rounded, directed outwards; posterior tubercles prominent; central tubercle of first row twice size of laterals, tubercle of second row exceeds first central in size, tubercle of third row nearly equals it. Sparsely clothed with short fine light hairs; integument yellowish-brown, spotted with brown; dorsal mark brownish-buff, brown flecks, from apices of fore-tubercles it tapers off, margins incurvate, round base of abdomen, brown centre of narrow band bifurcates to base of fore-tubercles; from latter, dorsal mark extends with slightly undulating margins to posterior tubercles, which have the same pale hue; in centre of specific mark is a brown, somewhat lugeniform mark, with rather slight oblique streaks beneath; almost entire length and breadth of lateral margins covered by creamy-white, lake-tinted, somewhat oval marks, with brown dentate margins on dorsal side, and series of nearly vertical streaks of similar hue. Ventral surface brown, dark-green, orange-yellow margined, shield-

shaped mark in centre, large flecks of latter colour beneath branchial opercula, and close to spinners, which are short. *Epigyne* represents a yellowish, transversely wrinkled, cucullate membranous projection, depressed above, sides abrupt, margins beaded, centrally produced above into a semi-oval dark-margined lip, whose apex is prolonged into a segmented vermiform process, nearly equal to lip in length.

Male.—Ceph. th., long, 5; broad, 3.5. Abd., long, 4.5; broad, 3.2. Legs, 1, 2, 4, 3 = 17, 15, 13, 9 mm.

Cephalothorax light mahogany colour; hairs sparse, yellowish; moderately depressed, constricted at caput, which projects over falces; ocular eminence prominent, somewhat oblique; angular depression in centre of caput; median indentation longitudinal, dark colour, normal grooves rather faint; profile line forms a slight curve from thoracic junction to occiput.

Posterior central *eyes* separated from anterior centrals by a space about equal to their diameter, rather closer to one another than are the latter pair; lateral eyes placed within a slight concavity at angle of caput, fore-eye rather larger than posterior, separated by an interval equal to radius of anterior eye.

Legs yellowish, reddish-brown annulations; armature sparse light hairs, numerous strong spines, yellowish, base brown; coxæ of 1st pair projects a short curved process; 1-2 much the stoutest, femora clouded with chocolate-brown; tibiæ of 2nd pair tumid, 7 stout dark spines at extremity; superior tarsal claws—1st pair, 10 comb-teeth; inferior claw, 2 short close teeth.

Palpi yellowish, humeral joint short, stout, strong tuft of long yellowish bristles project from near centre of inferior surface; cubital joint about half length of humeral, somewhat spathulate, broad, projects from apex a long, strong bristle; radial joint short, produced on outer side into a large, yellowish, linear-oval process; digital joint large, oval, at apex of hairy convexities—which are directed towards each other—there are prominent, somewhat conical tubercles, base of convexities produced on outer side into a long, stout, black-brown apophysis, sharply bent inwards at extremity; bulb has rich red and yellow-brown tints; on crown of bulb is a black tumid crescent-shaped eminence, centrally constricted into acute points; beneath the convex transversely striated upper fold are a series of dark lobes, mostly pointed, concave above, apices directed forwards; near apex is a dark pointed apophysis, which projects forwards; about centre of bulb, on lower side, is a short, stout apophysis, curved backwards.

Falces vertical, conical, yellowish.

Maxilla somewhat spathulate, about as broad as long,

brownish, pale apices, inclined towards *lip*, which is somewhat triangular, everted, dark-brown; apex light.

Sternum cordate, dark-brown.

Abdomen oviform, tubercles moderately developed; integument light-brown, thickly mottled with creamy-coloured flecks, specific mark yellowish-brown; margins between anterior and posterior tubercles acute-crenate; series of brown marks on median line, impressed spots well marked.

Pairs about November. Cocoon somewhat globose, composed of dark-green silk; comprised within are 350 or more pinkish eggs.

Auckland, A.T.U.

Epeira oblitera, sp. nov.

Female.—Ceph. th., long, 6; broad, 5; facial index, 2.5. Abd., long, 8; broad, 6.5. Legs, 1, 2, 4, 3 = 21, 19, 17, 10.5 mm.

Cephalothorax yellowish, faintly suffused with brown, moderately clothed with coarse light hairs; rather depressed, sides rounded, constricted forwards; caput squarely truncated, sides low, convex, lateral index nearly equals interval between a hind-lateral eye and the hind-central next to it; mammiform eminences well-developed; caput and radial striæ rather faint; semicircular indentation on thoracic slope. Contour of profile rises at an angle of 40°, moderately arched across caput, synclinal dip behind occiput. Height of *clypeus* nearly equals depth of facial space.

Fore and hind rows of *eyes* sensibly recurved; ocular eminence prominent; eyes small; anterior centrals separated by a space equal to twice their diameter, rather less than that interval from hind-pair, which are further from each other than they are from anterior centrals; laterals seated obliquely on very low tubercles, encircled by black rings, nearly their breadth apart.

Legs moderately strong, yellowish, sparsely furnished with light hairs; femora convex above, few spines; genua of 1-2 two-thirds length of tibiæ, two grooves on former and latter articles, spines yellowish. Superior tarsal claws—1st pair, strong, 10 open comb-teeth; inferior claw, 2 teeth.

Palpi as long as cephalothorax, yellowish, light hairs, palpal claw straighter than tarsal, 10 similar teeth.

Falces yellow-amber colour; as long as genua, and as broad as femora of 1st pair of legs; somewhat conical, vertical, project at base in front.

Maxille broad, obtusely pointed, inclined towards *labium*, which is triangular; organs chestnut-brown, yellowish margins.

Sternum cordate, eminences opposite coxæ; chestnut-brown colour.

Abdomen oviform, depressed above, sides abrupt, convex; anterior tubercles very small, conical; posterior rather small, central tubercle of first row shortest of three. Yellow stone-colour, faintly mottled with brown; specific mark almost obliterated, leaf-like, mottled with creamy-coloured flecks, margins brown, faint, three somewhat angular brown marks on median line, impressed spots, well-defined, form a trapezoid. On ventral surface is a large dark-green shield-like mark, margins buff, double row of four foveola. *Epigyne* represents a cucullate, transversely wrinkled, membranous eminence, depressed above, sides abrupt, centrally produced into a broad, transversely wrinkled, yellowish lip, margins tumid, apex forms an obtuse angle, terminates in a clear yellowish, segmented, vermiform process, as long as lip.

Whangarei Harbour, *T. Brown*.

Epeira tri-tuberculata, sp. nov. Plate VII., fig. 2. Plate VIII., fig. 1.

Female.—Ceph. th., long, 3; broad, 2.5; facial index, 1. Abd., long, 5.5; broad, 5. Legs, 1, 2-4, 3 = 11, 10, 6.5 mm.

Cephalothorax reddish-amber colour, few small blackish spots, hairs short, sparse, whitish; rather depressed, sides rounded, laterally constricted forwards; caput squarely truncated, lateral index equal to interval between a fore-lateral eye and the hind-central furthest from it; sides nearly vertical, slight constriction behind posterior row of eyes; median indentation longitudinal, radial and caput striæ moderately marked; contour of profile rises at an angle of 45°, slightly curved across caput, rising a little at occiput. *Clypeus* in height equals two-thirds diameter of a fore-central eye.

Posterior row of *eyes* sensibly recurved, median pair rather more than their breadth apart, their space and an eye's diameter from hind-laterals; anterior row recurved, centrals rather larger than hind-pair, separated by their diameter and a half, less than that interval from posterior pair; lateral eyes separated by a space equal to their radius, placed obliquely on tubercles; anterior tubercles prominent.

Legs moderately slender, yellow-amber colour, faint reddish-lake annuli, clouded with similar hue; sparsely furnished with short light hairs; femora convex above, numerous short spines; genual joint of 1st pair more than half length of tibial, two grooves, continued on latter joint; besides upper spines, tibiæ has double row of 6, metatarsi two rows of 4. Superior tarsal claws—1st pair long, free end rather sharply bent, 13 teeth, 5 basal, small, terminal strong, somewhat form of free end; inferior claw sharply bent, 2 points.

Palpi resemble legs in colour and armature; palpal claw, partially broken, apparently like tarsal claw.

Falces vertical, conical, moderately strong, yellowish.

Maxilla somewhat spathulate, inclined towards *lip*, which is pointed, nearly twice as broad as long; organs reddish-brown, light margins.

Sternum cordate, broad as long, eminences opposite *coxæ*, yellowish, shaded with reddish-brown.

Abdomen somewhat obtusely pointed, from anterior tubercles, which are mammiform with yellow nipple-like apices, abdomen tapers moderately off to small posterior tubercle; depressed above, sides convex; from apex of fore-tubercle profile line forms a rather sharp angle; hairs light, short, sparse; dorsal mark leaf-like, coarsely acute-crenate, mottled with creamy-brown, spotted with lake-coloured, white-margined flecks, with blue-black vein-like streaks between; dark impressed spot in each acute projection; creamy-white transverse band, with lake-coloured margins, connects anterior tubercles, directed obliquely backwards from centre of band are two short bars of similar hue; petiole of leaf-like mark curves round base, is creamy-white, lake margins; lateral margins mottled, flecked and veined with normal tints. On ventral surface is a shield-like mark with white flecks. *Epigyne* represents a broad, yellowish, transversely segmented, napiform lobe; above apex of lobe, which is directed forwards, is a brown membrane produced into central and lateral acute projections; margins of lobe on posterior side incurvate, divided by a short, petiole-like projection from lobe.

Colorations of some examples have rich lake, chocolate, and orange tints. Taken amongst low, moist vegetation.

Te Karaka, A.T.U.

Epeira orientalis, sp. nov. Plate VII., fig. 3.

Female.—Ceph. th., long, 5; broad, 4; facial index, 2. Abd., long, 10; broad, 9. Legs, 1, 2, 4, 3 = 19, 18, 16, 12 mm.

Min.—Abd., long, 9; broad, 8. *Max*.—Abd., long, 12; broad, 9. Leg of first pair, 24.5 mm.

Cephalothorax lake-black, lake-coloured about dorsal surface, hairs sparse, light, short, adpressed; length of cephalothorax equal to tibiae of a leg of first pair, sides rounded, moderately compressed forwards; lateral index of caput nearly equal to facial; luniform transverse depression in centre of caput; thoracic indentation transverse, radial and caput striæ fairly marked; contour of profile rises from thoracic junction at angle of 40°, slopes forwards with a slightly undulating line, rising at ocular eminence, which is moderately developed, slopes abruptly

forwards, widest in front. *Clypeus* in height equal to about half facial space.

Posterior row of *eyes* nearly straight, median pair their diameter apart, twice their space from hind-laterals; anterior row recurved, central pair largest of eight, separated from one another by their diameter and a-half, rather less than that interval from hind-centrals; lateral eyes seated obliquely on moderate tubercles, their radius apart.

Legs moderately stout, femora brownish-lake, clouded with brown, few short yellow spines; double groove on genua and tibiæ, latter articles, metatarsi, and tarsi yellowish-brown, blackish annuli; armature black and white hairs, yellowish spines, tibial spines less than diameter of article in length. Superior tarsal claws—1st pair, 9 teeth, increasing in length and strength; inferior claw, 2 teeth.

Palpi brown-black, few white hairs, spines numerous; palpal claw 9 teeth, directed forwards.

Falces rather slender, conical, vertical, brown-black.

Maxillæ broad as long, obtusely pointed, inclined towards *labium*, which is rather pointed; organs chocolate-brown, pale apices.

Sternum cordate, eminences opposite *coxæ*, brown-black.

Abdomen somewhat diamond-shape, or broad oval, projects over base of cephalothorax, depressed above, sides convex; integument has a soft black velvety appearance, petiole of leaf-like serrated dorsal mark, dark, with orange-red and yellow sinuated margins, numerous flecks of similar hue on base of abdomen on either side of petiole; tubercles prominent, directed outwards; dorsal mark extends to apices of tubercles, is sharply constricted at central pair of impressed spots, tapers towards spinners, throwing off a few transverse bars, has orange-red tints, with dull-yellowish shading, few black marks in centre; lateral margins longitudinally wrinkled, large irregular-shaped mark of normal tints; sparsely clothed with very fine short hairs, few black erect hairs. Ventral surface dull-black, bright orange-red and yellow marks above spinners, which are short, brown-black. *Epigyne* represents a somewhat oval, greenish-black, eminence, anterior portion transversely wrinkled, projects moderately forwards, centrally produced into a pendulous, oval, fleshy process, directed backwards; lateral margins form a series of three curved folds.

Male.—Ceph. th., long, 4.5; broad, 4. Abd., long, 6; broad, 5. Legs, 1, 2, 4, 3 = 20, 18, 15, 9 mm.

Cephalothorax light-brown, fore-lateral margins and median indentation dark-olive; fairly clothed with glossy pale stone-coloured hairs; depressed, sides rounded, compressed forwards; median indentation longitudinal, deep, striae faint; caput

narrow, depressed, ocular eminence prominent; fore and hind row of eyes much recurved, posterior centrals less than their diameter apart.

Legs same tint as cephalothorax, light-brown annuli on tibiae and metatarsi, whitish hairs; spines short, yellow-brown, base dark, numerous, especially on tibial joints; femoral joints of 1-2 rather stout; superior tarsal claws—1st pair, 8 teeth, inferior claw, 2 short teeth.

Palpi, humeral and cubital joints yellowish, latter applanate, broad, base constricted, projects from apex two long strong bristles, radial joint short, pitchy-red, produced above into a stout upright process, from curved apex there projects forwards a somewhat semi-oval, truncated membrane, finely toothed along truncated end; in centre of article, on outer side, is a rather large mammiform eminence, beneath which is a black curved apophysis, convave above, directed forwards; digital joint large, broad-oval, convex and hairy externally, convexities directed towards each other; palpal organs complex, most remarkable are, at base of bulb, a large black apophysis, concave above, directed forwards; projecting upright from its base is a long, stout, black process, curved forwards at apex; between former projection and apex of bulb is a dark, somewhat membranous, pointed apophysis, projecting from a ring-like base; bulb terminates with several membranous projections, concave beneath, acuminate.

Abdomen, base somewhat rounded, tapers posteriorly from lateral angles; tubercles conical, well-developed; specific pattern on fore-part bears some resemblance to female's, but has duller tints—which also obtain in some female examples; from the broad transverse band which connects tubercles, a tapering mark, with few acute projections, extends to spinners.

This handsome *Epeira* is rather uncommon, but mature examples may be met with throughout the winter months—frequents branchlets of manuka (*Leptospermum scoparium*); the snare, apparently, only consists of a few irregular lines; the cocoon, which she fabricates amongst the slender branches, is sub-globose, composed of coarse dark-green silk of loose texture, about two metres in diameter; comprised within are about 70 or more oval eggs of a pale-brown colour, agglutinated together in a lenticular form. Male rare.

Te Karaka, Auckland, A.T.U.

Epeira bi-albimacula, sp. nov.

Female.—Ceph. th., long, 3; broad, 2.3. Abd., long, 4; broad, 2.5. Legs, 1, 2, 4, 3 = 11, 10, 9.5, 6 mm.

Cephalothorax pellucid stone-brown, caput clouded with

olive-brown; moderately clothed with light hairs; broad-oval, compressed forwards; median fovea somewhat circular, normal grooves moderately marked; caput convex, projects forwards, lateral index equals space between a fore-lateral eye and the hind-central furthest from it; contour of profile rises from thoracic junction at an angle of 30° , forms a very low arch across caput. *Clypeus* in height equals diameter of a fore-central eye.

Four central *eyes* large, seated on a prominent eminence, form a trapezoid, whose anterior side is widest; hind-centrals, which are separated by nearly their diameter, and rather more than that space from fore-centrals, exceed latter a little in size; lateral eyes nearly contiguous, placed obliquely on moderate tubercles, are further from anterior median eyes than those eyes are from each other.

Legs and cephalothorax concolorous, black-brown, olive-tinged annulations, armature pale hairs, numerous black spines; 1-2 equal in strength; superior tarsal claws—1st pair, strong, slightly sinuated, free end curved, 9 open comb-teeth, increasing in length and strength; inferior claw long, sharply bent, 2 teeth.

Palpi long, colour of legs, olive-green annuli; palpal claw long, 12 open teeth.

Falces vertical, somewhat conical, divergent, clear stone-brown, clouded with olive-green.

Maxilla quadrate, strong, greenish-stone, dark centre. *Labium* oval, pointed, rather broader than long, resembles maxillæ in colour.

Sternum cordate, glossy black-brown, yellow median line.

Abdomen broad-oviform, slightly convex, projects over base of cephalothorax, clothed with light hairs, and bristle-like black hairs; ground colour brown, mottled with a pale hue; between the rounded tubercular eminences are two remarkable large creamy-yellow spots; tapering posteriorly as far as spinners is a wide acute-crenate red-chestnut and brown mark. Ventral surface light dull-yellow, broad T-shaped black-brown mark. *Epigyne* large, conical, pendulous, segmented, clear dark-green process, apex directed backwards, tinged with yellow, on either side of process are glossy-black planiform spiral lobes.

Te Karaka, A.T.U.

Epeira saxitalis, sp. nov.

Female, immature.—Ceph. th., long, 2.5; broad, 2.5; facial index, 1. Abd., long, 5.3; broad, 5. Legs, 1, 2, 4, 3 = 11.5, 10, 9, 7 mm.

Cephalothorax yellowish, sparsely clothed with light hairs; broad oval, laterally constricted forwards; caput moderately convex, roundly truncated; median indentation somewhat

diamond-shaped; caput and radial striæ moderately marked; contour rises from thoracic junction at an angle of 45° , slightly arched across caput. *Clypeus* sensibly directed inwards, in height equal to half facial space.

Eyes on black rings, posterior row sensibly recurved, hind-centrals rather further from anterior pair than they are from each other, an interval slightly exceeding their diameter, their space and a half from hind-laterals; anterior centrals dark, on low eminences, interval between them rather exceeds the space between posterior pair; lateral eyes smallest of eight, seated obliquely on low tubercles, less than their radius apart.

Legs straw-colour, almost devoid of hairs, numerous irregular, erect, light-yellowish spines, dark base, rather less than diameter of tibiæ in length; superior tarsal claws—1st pair fine, moderately curved, free end long, tip bent, 10 close teeth directed forwards, two terminal teeth exceed third by one-half; inferior claw long, fine, 2 small points.

Palpi resemble legs in colour, light hairs, erect bristles, palpal claw form of tarsal, 8 teeth.

Falces glossy, yellowish, conical, project sensibly forwards.

Maxillæ nearly as broad as long, obliquely truncated, yellowish.

Labium rather broader than long, somewhat pointed, nearly half length of maxillæ, greenish tinge.

Sternum cordate, yellow-brown.

Abdomen somewhat diamond-shaped, depressed, projects over base of cephalothorax, short obtuse tubercles at lateral angles; greyish stone-colour, thickly flecked with brown, fine brown streak along median line—in some examples almost obliterated—throwing off series of oblique bars.

This species is common about the cliffs at Waiwera, its stone-colour assimilating with its environment; several immature males, 4 mm. in length, were taken. Resembles female in form and coloration.

Epeira sub-compta, sp. nov. Plate VII., fig. 4.

Female.—Ceph. th. long, 3.2; broad, 3; facial index, 1. Abd. long, 5; broad, 4.7. Legs, 1, 2, 4, 3 = 14.5, 13.3, 12, 9 mm.

Cephalothorax yellowish-amber colour, clothed with few light hairs, spine-like bristles on caput, striæ of latter and median indentation chocolate-brown; thorax moderately depressed, broad, sides rounded, curvature directed somewhat backwards; normal grooves well-marked; caput appanate (viewed from above), somewhat conical, sides compressed, lateral index about equal to space between a hind-lateral eye and the hind-central next to it; profile line rises at an angle of 30° , runs with a faint

slope to posterior central eyes, dips abruptly across facial space. Height of *clypeus* equals space between fore-median eyes.

Posterior row of *eyes* recurved, interval between median pair equals their diameter; anterior row recurved, centrals slightly largest of eight, rather more than their breadth from each other, separated by latter space from hind-pair; lateral eyes placed obliquely on separate tubercles, their diameter apart, fore-tubercle prominent.

Legs moderately strong, concolorous to cephalothorax, broad chocolate-brown annulations; light and dark stiff hairs; femora convex above, few short spines; genual joint half-length of tibial, both articles have two well-marked longitudinal grooves; tibiae and metatarsi have few irregular yellowish spines above, former double-row of 4 beneath, latter two rows of 6. Superior tarsal claws—1st pair moderately curved, 9 open comb-teeth, points curving slightly backwards; inferior claw, 2 points.

Palpi moderately stout, rather longer than cephalothorax, resemble legs in colour and armature; palpal claw long, moderately curved, 10 comb-teeth, increasing in length and strength, directed forwards.

Falces strong, vertical, somewhat conical, project at base in front, divergent, yellowish, suffused with chocolate-brown.

Maxillæ nearly as broad as long, obtusely pointed, inclined towards *labium*, which is broader than long, pointed; organs yellowish, base dark.

Sternum cordate, eminences opposite *coxæ*, yellowish-brown, suffused with darker hue.

Abdomen somewhat oviform, posterior end transversely wrinkled, base broad, projects over thorax, slightly convex above, sides rounded, longitudinally wrinkled; sparsely clothed with short light hairs, few bristles; a broad, coarsely runcinate, median band tapers to spinners, mottled brown, inner marginal streak black-brown, outer creamy-yellow, in centre of dorsal band is a— not clearly defined— acute-crenate chocolate mark, few creamy-yellow marginal lines; lateral margin yellow stone-colour, series of somewhat sinuated, brown-black, oblique lines converge towards spinners. On ventral surface there is a large, somewhat quadrated, shield-shaped dark olivaceous mark, with two large creamy-yellow spots near spinners. *Epigyne* transverse oval, encircled by two broad projecting membranes, outer yellowish, inner shades off to chocolate-brown on posterior side, is confluent with outer anterior side, from whence they are produced into a broad tapering central keel, connected at its truncated apex with outer membrane; dark inner membrane incurvate within concavities, on either side of keel; projecting over labia is a broad, pendulous, segmented, contorted, yellowish process, applanate and incurved at apex.

a. Annulations on tibiæ and metatarsi faint. Superior surface of abdomen creamy-yellow; specific pattern resembles type form, more defined; apices of runcinate band black-brown, between teeth are a series of three acute black-brown marks.

Two specimens, Whangarei Harbour, *T. Brown*.

Epeira viriditas, sp. nov.

Female.—Ceph. th., long, 4; broad, 3.5; facial index, 1.4. Abd., long, 5; broad, 4. Legs, 1, 2, 4, 3 = 15, 14, 13, 8 mm.

Cephalothorax greenish straw-colour, suffused with bright pea-green; hairs very sparse and fine; sides rounded, laterally constricted at caput, which is depressed, lateral index equals space between a fore-lateral eye and the hind-central furthest from it; ocular eminence moderately prominent; median indentation transverse, radial and caput striæ fairly marked; contour of profile rises at an angle of 30°, slopes, with slight curve, to ocular area. Height of *clypeus* equals radius of a fore-central eye.

Eyes on lake-coloured rings; posterior row straight, interval between median pair slightly exceeds their diameter, nearly twice their space from hind-laterals; anterior row recurved; median pair, which are slightly larger than hind pair, about their breadth and a half apart, rather less than interval from posterior centrals, their space from fore-laterals; side eyes placed on low separate tubercles, about their radius from one another.

Legs concolorous to cephalothorax; rather stout, armature sparse, short, whitish hairs, lake-tinged spines numerous on tibiæ and metatarsi, 10–12 on inferior surface, latter article and tarsi tinged with lake-colour; superior tarsal claws—1st pair 9 teeth, 5 basal close, terminal strong; inferior claw sharply bent, 2 teeth.

Palpi resemble legs in colour and armature; palpal claw 8 teeth.

Falces moderately stout, conical, directed somewhat inwards, pea-green; fangs, dark lake-colour.

Maxilla nearly as broad as long, obtusely truncated, inclined towards *labium*, which is rather broader than long, roundly pointed, everted; organs pea-green, yellowish margins.

Sternum cordate, eminences opposite coxæ, yellowish, clouded with pea-green.

Abdomen oviform, base somewhat pointed; very sparsely clothed with short light hairs; dorsal surface covered by a bright, deep pea-green, yellow margined, oviform mark; lateral margins greenish-black. On ventral surface is a green, yellow-

margined, shield-shaped mark. *Epigyne* represents a yellowish, transversely wrinkled, cucullate eminence; projecting outwards from beneath hood-like membrane, is a broad, long, clear greenish-yellow, linear process; about 12 well-defined segments, concave above, apex cupuliform; integument at base of process produced, at right angles to it, into large, somewhat conchiform projections, with brown margins, curving inwards beneath process.

Frequents *Leptospermum*; Te Karaka, A.T.U.

Epeira discolora, sp. nov.

Female.—Ceph. th. long, 3; broad, 2.2; facial index, 1. Abd., long, 5; broad, 4. Legs, 1, 2, 4, 3 = 12, 11, 9.2, 5 mm.

Cephalothorax yellow amber-colour, suffused with reddish-amber, hairs sparse, whitish; oval, rather depressed, moderately constricted forwards; caput roundly truncated, ocular eminence moderately prominent, lateral index equals space between fore-lateral eyes; median fovea somewhat circular, deep, radial and caput striæ fairly marked; contour of profile rises from thoracic junction at an angle of 60°, dips slightly across caput. *Clypeus* vertical, in height equal to diameter of a fore-central eye.

Posterior row of *eyes* sensibly recurved; centrals separated by an interval that slightly exceeds their diameter, little more than their space from hind-laterals; anterior row recurved, median pair rather smaller, and further apart than are posterior pair; interval between fore and hind-centrals rather exceeds space between latter pair; lateral eyes seated obliquely on black tubercles, less than their radius from each other.

Legs rather slender, yellow-amber colour, reddish annuli, femora of first pair clouded with olive-green; sparsely furnished with short hairs, erect black spines; tibial and metatarsal spines exceed diameter of those articles in length. Superior tarsal claws—1st pair, 11 comb-teeth, increasing in length and strength; inferior claw, 2 teeth.

Palpi moderately slender, about length of cephalothorax, yellowish, spines numerous; palpal claw like tarsal, 8 teeth.

Falces strong, conical, vertical, red-amber colour.

Maxilla broad, rounded, inclined towards *labium*, which is nearly twice as broad as long, everted; organs yellowish, base chocolate-brown.

Sternum cordate, eminences opposite *coxæ*, brown, yellowish streaks in centre.

Abdomen oviform, convex above, projects over base of cephalothorax; dorsal surface covered by an oviform pea-green mark, margins brown, sinuated; on its fore-part there is a creamy-white angular line, vertex directed forward, base extends back to central pair of impressed spots, between latter

and spinners are two or more whitish spots; upper portion of lateral margins rich maroon, lower greenish-brown oval patch, with creamy margins. Ventral surface brown, two longitudinal whitish streaks and spots. *Epigyne* yellowish, moderately convex, somewhat triangular, transversely wrinkled, cucullate membrane, centrally produced into a short involute lip; dark margins of hood-like membrane project a little forwards, from base of lip curve backwards, forming large lateral loops, confluent beneath lip.

Male.—Ceph. th., long, 3; broad, 2.4. Abd., long, 3.2; broad, 2. Legs, 1, 2, 4, 3 = 14, 12, 10, 7 mm.

Cephalothorax yellowish-amber, slightly suffused with darker hue; broad oval, fore-part of caput more depressed than female's, contour of profile low arch; median indentation and striæ well marked.

Legs concolorous to female's; femoral spines exceed diameter of article in length, numerous on 1-2; margin of coxæ, 1st pair, produced on inner side into a short curved apophysis.

Palpi yellowish, few pale hairs, humeral joint short, small curved spine on fore-end; cubital short, complanate, fore-angles produced into cylindrical tubercles, from which project remarkably long, strong bristles, outer angle produced into a stout conical apophysis; radial joint cyathiform, length about equal to diameter of cubital, attached to inferior surface of latter joint; digital joint large, somewhat globose, reddish tints, convexities hairy, directed towards each other; palpal organs complex, superior surface, large, brownish, convex disc, dark margins of which are produced into a curved, tapering apophysis, directed backwards; most remarkable, projecting from inferior surface of bulb are two broad curved apophyses near articulation of joints, terminating in several black points; between these and the terminal, long, tapering, black process, which is directed downwards and somewhat backwards, are two large, broad-conical eminences directed downwards.

Abdomen small, oviform, pea-green, varies somewhat in coloration.

This species varies in colour, lateral margins in some examples being brown or green, in others the abdomen has a yellowish tinge.

Not uncommon; usually frequents manuka (*Leptospermum*); forms a moderate-sized web; pairs in November.

Te Karaka, A.T.U.

Epeira verutum, sp. nov.

Female.—Ceph. th., long, 3.5; broad, 2.5. Abd., long, 6; broad, 4.7. Legs 1, 2, 4, 3 = 11, 9, 8, 6.5 mm.

Cephalothorax yellow-brown, suffused with red-chestnut; hairs greyish, sparse; broad-oval, constricted laterally forwards, depressed; caput roundly truncated, lateral index nearly equals space between fore-lateral eyes; ocular eminence low; median indentation transverse, normal grooves well-marked. *Clypeus* vertical, height exceeds diameter of a fore-central eye.

Posterior row of *eyes* moderately recurved, median pair about their diameter apart, rather more than their breadth from anterior centrals, which are separated by about their diameter and a half, and rather more than that interval from the side-eyes next to them; laterals seated obliquely on dark tubercles, about their radius from each other.

Legs moderately strong, concolorous to cephalothorax, more or less defined greenish annulations; armature darkish hairs and spines; length of tibial spines about equal to diameter of articula; superior tarsal claws—1st pair evenly curved, 11 teeth, 4 outer open, curved backwards; inferior claw long, sharply bent, teeth small.

Palpi moderately slender, armature and colour of legs; palpal claw moderately curved, 6 teeth, increasing much in length and strength.

Falces vertical, conical, tumid at base in front, strong teeth; similar to legs in colour.

Maxilla broad, inclined towards *labium*, which is nearly as long as broad, somewhat pointed, everted; yellowish-green, base dark.

Sternum cordate, eminences opposite *coxæ*, chocolate-brown colour.

Abdomen ovoid, projects over base of cephalothorax, on dorsal surface is a broad, pale pea-green, yellow-margined lance-like mark, basal angles obtuse, shaft tapers posteriorly; the four central, well-marked, impressed spots on lance-head form a trapezoid; lateral margins dark velvety-brown. *Epigyne* represents a yellowish-green, transversely wrinkled, moderately prominent, semicircular eminence, centrally produced into a broad, transversely wrinkled process, directed backwards, concave above, apex somewhat calceolate; projecting laterally from base of lip are large processes, terminating with somewhat planiform spiral lobes.

Female.—Var. *veruina*, var. nov.

Cephalothorax, *legs*, and *palpi* do not differ essentially in coloration from type form. *Abdomen* light brown, shading off on lateral margins to a soft dark brown, specific mark pale chalky-green edged with buff, sharply constricted at posterior pair of central impressed spots, giving it the form of an arrow, with a well-defined shaft: on posterior half of abdomen is a brownish band, with sinuated margins.

Var. *hastatum*, var. nov. Plate VIII., fig. 2.

Female.—*Cephalothorax* and *legs* resemble type form. *Abdomen* light-brown above, graduating to a darker shade on lateral margins; dorsal surface covered by a more or less defined somewhat oviform brown mark, with sinuated margins; specific mark differs in form from that of var. *vervina*, constriction defining arrow-head being in line with anterior pair of central impressed spots; in line with posterior pair is an obtuse-angled transverse bar, shaft tapers off to spinners.

Male.—Ceph. th., long, 3; broad, 2. Abd. long, 3.6; broad, 2.7. Legs, 1, 2, 4, 3 = 11, 9, 8, 6 mm.

Cephalothorax yellowish-brown, greenish-tinge; caput slightly more compressed than female's.

Legs yellow-brown, olivaceous annulations; coxæ of first pair produced, on outer side, into a short curved apophysis; femoral spines of latter pair strong, tibial exceed diameter of article in length.

Palpi yellowish, humeral joint slender, short; cubital, broad, somewhat oval, complanate, truncated at apex, projecting from short cylindroid tubercles, at each angle are long bristles; radial joint articulated to inferior surface of cubital, nearly twice diameter of latter joint, umbraculiform; digital joint large, somewhat oval, convexities moderately hairy, directed towards each other, base of convexity produced on outer side into a reddish-brown curved apophysis, concave on superior surface; beneath it is a large, conical, yellowish process, directed downwards and outwards; superior surface of bulb semi-globose, transversely striated, crumpled on inner side into a hippocrepiform eminence, lobe beneath terminates in a short beak-like process, concave within, directed downwards; remaining most remarkable projections are, a short, broad, pale, rugose membrane, curving upwards towards point of beak, and a large yellowish and black claw-like apophysis projecting from apex of joint, curved backwards.

Abdomen oviform, coloration and markings resemble female.

Var. *lineola*, var. nov.

Abdomen brown, oviform mark nearly obliterated, specific pattern reduced to a narrow longitudinal line, with similar tints; in some examples faint trace of arrow-like mark.

Examples of this interesting species, and the more or less clearly defined varieties, were numerous on low shrubs, about the summit of Arthur's Pass; I also captured them at Lake Alexandra, Mackenzie Plains, Canterbury. Examples of var. *hastatum* have been sent to me by F. Goyen, Esq., Dunedin.

Epeira linea-acuta, sp. nov.

Female.—Ceph. th., long, 3; broad, 2·8; facial index, 1. Abd., long, 5; broad, 4. Legs, 1, 2, 4, 3 = 10·5, 9·5, 9·5, 6·5 mm.

Cephalothorax greenish, hairs sparse, grey; depressed, sides rounded, laterally constricted forwards; caput roundly truncated, ocular eminence low, lateral index equal to space between a fore-lateral eye and the hind-central nearest to it; median fovea deep, striæ fairly marked; profile line rises from thoracic junction at an angle of 30°, forms slight arch across caput. Height of *clypeus* about equal to diameter of an anterior central eye.

Eyes on dark rings; posterior row sensibly recurved; median pair rather more than their diameter apart, their space and a quarter from hind-laterals; anterior row recurved, centrals nearly twice their breadth from each other, rather less than that interval from hind-centrals, nearly their space from side-eyes next to them; laterals seated obliquely on low tubercles, separated by about their diameter.

Legs moderately stout; clear yellowish-green, brownish annulations; short grey hairs, spines rather numerous, yellowish, double row of five beneath tibiæ and metatarsi; superior tarsal claws—1st pair, 9 teeth; inferior claw, 2 strong teeth.

Palpi rather slight, yellowish-green; palpal claw straighter than tarsal, 9 teeth.

Falces conical, directed somewhat inwards, greenish-yellow.

Maxilla nearly as broad as long, obtusely pointed, inclined towards *labium*, which is triangular, almost twice as broad as long; organs yellowish, base greenish.

Sternum cordate, eminences opposite coxæ, yellowish, olive tinge.

Abdomen somewhat oviform, broad, sensibly convex above, sides rounded, projects moderately over base of cephalothorax; sparsely clothed with short fine hairs; dorsal surface covered by a large, mottled, greenish-yellow oviform mark, margined by two streaks, inner white, outer brown, graduating off to green; four central impressed spots form a trapezoid, 1st pair placed close to apex at base; on either side, and directed towards 2nd pair, are two fine brown lines forming an acute angle; extending outwards from spinners to 3rd pair are a series of four brown lines—outer streaks in most examples form a curve connected with narrow dorsal line. On ventral surface there is a wide green band, white and brown margins. *Epigyne* represents a broad, transversely wrinkled, yellowish eminence, centrally produced into a short, pendulous, cupuliform, wrinkled process, directed backwards; projecting at right angles from base of process are two smaller, somewhat vermiform, short

thick processes, base of which consists of two well-defined segments; apices conical, smooth.

Male.—Ceph. th., long, 3; broad, 3.4. Abd., long, 3.5; broad, 3. Legs, 1, 2, 4, 3 = 12, 11, 10, 6 mm.

Cephalothorax deeper green, caput more compressed laterally, ocular eminence projects more over clypeus, and tubercles of anterior lateral eyes more prominent than female's.

Legs strong, yellowish-green; annuli well marked.

Palpi short, greenish; cubital joint about half length of humeral, appanate, projecting from truncated apex are two long bristles; radial joint articulated to inferior surface of cubital; projecting outwards and downwards is a large, yellowish, conoid process; above is a broad, spiral apophysis; apex dark-lake, directed outwards, curving inwards; digital joint large, somewhat oval, convexities hairy, directed towards each other; palpal organs complex, superior surface of bulb striated, apex partially cleft through, exposing inner dark lobe: lower, smooth portion of bulb terminates in a remarkable claw-like process; projecting downwards are two wide, darkish, semi-pellucid, membranous processes.

Abdomen resembles female's in coloration and pattern.

Numerous examples. Lake Tekapo, Canterbury, A.T.U.

Epeira purpura, sp. nov.

Female.—Ceph. th., long, 3.2; broad, 2.8; facial index, 1.2. Abd., long, 7; broad, 6. Legs, 1, 2, 4, 3 = 12.5, 11.5, 10, 6 mm.

Cephalothorax yellowish-amber, suffused with red-lake; hairs sparse, light; rather depressed, sides rounded, constricted at caput, which is roundly truncated, ocular eminence low, lateral index less than interval between a fore-lateral and the hind-median eye furthest from it; normal grooves not well-marked; contour of profile rises at an angle of 45°, slopes forwards with a slight curve to occiput; *clypeus* in height equals diameter of a fore-central eye.

Posterior row of *eyes* slightly recurved, median pair rather more than their breadth apart, their space and a quarter from hind-laterals; anterior row moderately recurved, centrals separated by an interval equal to nearly twice their diameter, rather more than their breadth from hind-pair, nearly their space from fore-laterals; side-eyes seated obliquely on separated tubercles, nearly contiguous.

Legs rather slight, yellowish-amber colour, suffused with red-lake; armature few light hairs, spines numerous, double row of 5 on inferior surface of tibiæ, about equal number under metatarsi; superior tarsal claws—1st pair, 9 comb-teeth; inferior claw strong, 2 teeth.

Palpi resemble legs in colour and armature; palpal claw somewhat like tarsal, 8 teeth.

Falces vertical, conical, moderately stout, yellowish.

Maxillæ longer than broad, somewhat spathulate, inclined towards *labium*, which is pointed, rather broader than long; organs brownish, pale apices.

Sternum cordate, nearly as broad as long, eminences opposite *coxæ*; chocolate-brown.

Abdomen large, base obtusely pointed, lateral angles prominent, pointed posteriorly; sensibly convex above, sides slope inwards; creamy-white transverse band connects angles, thickly marked with large irregularly-shaped creamy-white flecks, which are intersected by lake-purple vein-like lines; very sparsely clothed with short, fine hairs. Dark-green yellow-margined shield-shaped mark on ventral surface; *epigyne* yellowish, broad, somewhat vermiform process, segments well-developed, apex calceolate: three-fourths of pendulous process is attached to a wide membrane, beaded margins of which are involute on posterior side.

Single specimen. Te Karaka, A.T.U.

Genus *Nephila*, Leech.

Nephila argentatum, sp. nov. Plate VIII., fig. 3.

Female.—Ceph. th., long, 2·8; broad, 2. Abd., long, 7; broad, 4. Legs, 1, 2, 4, 3 = 20, 18, 15, 8 mm.

Cephalothorax dark straw-colour, translucent, marginal zone and V-shaped mark on caput olive-green; broad oval, depressed, moderately constricted forwards; caput convex, roundly truncated; median fovea deep, olivaceous tint, somewhat diamond-shaped, placed rather forwards; caput and radial striæ well-marked; contour of profile represents a double-arch, thoracic curve indented; *clypeus* vertical, in height rather exceeds space between anterior central eyes.

Eyes on dark spots, four centrals nearly form a quadrilateral figure, longer than broad; posterior row sensibly procurved, median pair separated by rather more than their diameter, nearly twice that space from hind-lateral eyes; anterior row recurved, centrals dark, placed on blackish-green moderate eminences, nearly their diameter apart, and about twice that interval from hind-centrals; lateral eyes seated on black tubercles, rather less than their radius from each other.

Legs long, slender, femora clear green, remaining joints yellowish, brownish annulations; armature long, fine hairs, long slender spines on femoral, tibial, and metatarsal joints; latter article about equal in length to *genua* and *tibiæ*; superior tarsal claws—1st pair long, moderately curved, 18 short somewhat

even comb-teeth; inferior claw sharply curved, apex directed outwards, 2 small teeth.

Palpi slender, resemble legs in colour and armature; palpal claw long, rather straight, 6 teeth.

Falces vertical, somewhat conical, project at base in front, as stout as femora of first pair of legs, divergent at apex, double row of about 5 strong teeth; yellowish, olive-green, yellow-mottled oval streak on fore-part.

Maxillæ rather longer than broad, spatulate, divergent, yellow-brown. *Labium* oval, about as broad as long, less than half length of maxillæ; dark-brown, apex yellowish.

Sternum mahogany-brown, longer than broad, roundly truncated in front, pointed posteriorly, eminences opposite coxæ.

Abdomen large, oblong-oval, dorsal surface and sides somewhat deplanate, base projects forwards, slope abrupt, projects rather beyond spinners; dorsal surface dull silver, specific pattern varies in accuracy of outline in different examples; brown-black cruciate figure on fore-part intersects four rounded mammiform eminences, two black dots in front, four behind transverse bar, four anterior dots on eminences, base of cross extends nearly to spinners, throwing off two oblique lines, which are directed backwards; from dark bands along lateral margins two blackish streaks converge towards spinners; two subulate marks extend from near spinners to posterior pair of dots, apices directed forwards. Ventral surface, brown and blackish streaks, two longitudinal golden lines or spots extend from branchial opercula to spinners. *Epigyne* simple, semi-circular, brownish-black eminence, slightly concave within.

Male.—Ceph. th., long, 2·8; broad, 2. Abd., long, 3·8; broad, 2. Legs, 1, 2, 4, 3 = 26, 19, 15, 9·5 mm.

Male does not differ essentially from female in coloration or form, except that the legs are longer, abdomen shorter and slimmer.

Palpi, humeral joint slender, clear straw-colour, few black hairs, and slender bristles; nearly twice as long as cubital and radial joints together; former article short, radial rather the longest, base slender, projects a long bristle on fore-part; two latter joints clouded with olive-green; digital joint nearly equal in length to three former articles; yellowish-brown; oval, convexities hairy, directed towards each other; palpal organs simple, bulb large, glossy light orange-brown, on outer face are two brownish curved lines, integument of bulb hexagonally veined, projecting from apex are two somewhat beak-like membranous apophyses; curving over bulb, at basal end, is a short, stout, dark process.

Species common, pairs in November; web oblique or horizontal, constructed amidst green vegetation, spider rests in centre, beneath the web, exposing the dull-coloured ventral surface. Mature examples are apparently not to be met with during the winter months, but the young may be found on fine webs about grass, etc.

Tairoa, *T. Brown*. Te Karaka, Waiwera, *A.T.U.*

Fam. THLAOSOMIDÆ.

Genus *Thlaosoma*, Camb.

Thlaosoma pennum, sp. nov. Plate VIII., fig. 4.

Ceph. th., long, 2.5; broad, 2.3. Abd., long, 3; broad, 6.5. Legs, 1, 2, 4, 3 = 8, 7.8, 6.5, 5.5 mm.

Cephalothorax creamy-white, few brownish streaks and spots; sparsely clothed with whitish hairs, chiefly in lines; sides rounded sharply, laterally constricted at caput, which has the characteristic upturned form of the genus; bifurcation at conjunction of caput striæ and median indentation not so prominent as in *T. olivacea*; contour of profile rises somewhat abruptly from thoracic junction, forms a prominent rounded hump sloping off with slight arch to upturned apex. Height of *clypeus* slightly exceeds facial space.

Falces placed in usual position, four central divided by a yellowish cross-like figure.

Legs concolorous to cephalothorax, faintly clouded and annulated with brown; sparsely furnished with light hairs and bristles; 1-2 hardly differ in length or strength; femoral joints strong; two rows of minute spinous tubercles with numerous small irregular spines between on outer side; similar but smaller spines extend along genual and tibial joints, two or three at base of metatarsi; 4th pair slightly exceeds 3rd in length and strength; femora of latter pair armed with short irregular row of spines, nearly absent and weak on 4th pair. Superior tarsal claws—1st pair, outer strong, long, sharply bent, 2 short curved teeth at base; inner claw less than one-third size of outer, 5 comb-teeth, increasing in length and strength; inferior claw nearly equals inner in strength; auxiliary claws.

Palpi creamy-white, brown annuli, whitish hairs; palpal claws strong, sharply bent, no teeth.

Falces long, conical, directed slightly inwards, divergent at apex, few strong teeth; pale stone-colour, clouded with brown.

Maxilla directed towards each other, somewhat pointed on inner side; *labium* triangular, broader than long; organs chocolate-brown, light apices.

Sternum cordate, bifurcates at base, light-brown, clouded with a darker hue.

Abdomen creamy-white, faintly clouded on fore-part with brown; sparsely clothed with whitish hairs, bristle-like hairs at posterior end, few black tufts; broader than long, sides prolong, outwards, into sharp conical prominences, 2 mm. in length; base of abdomen rounded, semicircular indentation over thorax, with brown mark in centre; transverse row of humps faintly developed; posteriorly it forms an obtuse angle, contour slightly rounded; four impressed spots form a trapezoid. Ventral surface deeper hue, bronchial opercula brownish. *Epigyne* greenish-black, prominent, lip-like, somewhat pointed.

This species was described from a single example taken at Waiwera.

Thlaosoma olivacea.

Male.—Ceph. th., long, 0.6. Abd., long, 1.2; broad, 1.2. Legs, 1, 2, 4, 3 = 1st pair, 2.1 mm.

Cephalothorax areolate; chocolate-brown; two yellowish, half-circular lines extend along caput grooves, conjoined in centre of thorax, curving outwards near base; clothed with a few stout white lanceolate hairs, long erect black one at base of caput; oval, laterally compressed at caput, which is upturned, sub-conical, reddish-chocolate colour; four central eyes, which are comparatively larger than female's, intersected by a less defined yellow cross; lateral eyes seated obliquely on strong tubercles, rather less than diameter apart. *Clypeus* in height equal to about twice diameter and a half of an anterior central eye.

Legs moderately stout; 1-2 and 4-3 nearly equal in length and strength; brownish-yellow, fore-half of femora, genua, and basal half of tibiae black; chocolate annuli at apices of tibial and metatarsal joints; sparsely furnished with light hairs, few spines, long erect bristles; double row of short, black, tubercular spines along outer side of femora of 1-2. Superior tarsal claws differ in size; inferior claw sharply bent, free end fine.

Palpi short, tints of cephalothorax; humeral joint rather exceeds cubital and radial in length; cubital joint somewhat applanate, broad, and rounded in front, projects a strong bristle; radial joint calycoidal; digital oval, convex, and hairy externally, convexities directed towards each other; superior and inferior lobes of bulb large, reddish-brown; projecting at apex is a stout yellowish conical process; springing from base of article on outer side is a reddish, rather flat, but convex apophysis, curved inwards at apex.

Falces long, vertical, somewhat linear; yellowish, clouded on inner side with brown-black.

Maxilla spathulate, much inclined towards *labium*, which rounded, more than twice as broad as long; former organ greenish, latter brownish-yellow, dark bases.

Sternum broad-cordate, areolated, chocolate-brown.

Abdomen rounded in front, slightly curved indentation, pointed posteriorly; tubercles strong, project moderately backwards and outwards; brownish-yellow, dark, oblong mark at basal indentation; brownish marks between tubercles; strong black and white lanceolate serrated hairs.

This little spider may possibly not prove to be the male of *T. olivacea*, but I have taken it on two occasions, at Te Karaka and Waiwera, in the vicinity of females of that species; the first mature male was taken on November 1st. Females fabricate cocoons as late as April 17th; they are spherical, 5 mm. in diameter, echinulate, of a hard, brown, parchmenty nature, four or five in number, suspended by a short pedicel; comprised within are about 80 spherical, unagglutinated, dark straw-coloured eggs. The web is small, resembles that of the *Theridiidæ*, the lines intersecting one another at different angles and planes; web and cocoons may be met with about hakea fences and low shrubs. The female probably obtains some protection from her remarkable form and pale coloration; in the early part of summer examples may be met with resting on the upper surface of broad leaves—*e.g.*, apple; when in such positions their irregular forms, tinted with a pale greenish-blue and creamy-white, bear a strong resemblance to the excreta of birds.

Fam. THERIDIIDÆ.

Genus *Ariamnes*, Th.

Ariamnes conifera, sp. nov. Plate VIII., fig. 5.

Female.—Ceph. th., long, 1; broad, 0.8. Abd., long, 2; broad, 1; high, 1. Legs, 1, 4, 2, 3. 1st = 4.5 mm.

Cephalothorax oval, nearly as broad as long, slightly compressed forwards, depressed, caput roundly, thorax squarely truncated, areolate, normal grooves faint yellow-brown, shaded on lateral margins with olive-green, two bands of similar hue converge from hind eyes to base of thorax; contour of profile rises rather abruptly, runs nearly horizontally, rising slightly at occiput; *clypeus* nearly as long as depth of ocular area, projects forwards.

Eyes of equal size, seated on lake-coloured spots; four centrals nearly form a square; posterior row sensibly procurved, median eyes separated by rather more than their breadth, their diameter and a half from side eyes of same row; anterior row recurved, nearly equidistant; laterals placed on moderate tubercles, their radius apart.

Legs slender, 1–4 nearly equal in length; pale stone-colour, dark olivaceous annuli at articulations; metatarsal joint exceeds tibial in length, tarsal joint very short; armature few black hairs, long slender bristles; superior tarsal claws—1st pair slender, outer claw 1 tooth, inner (?); inferior claw sharply bent.

Palpi rather short, resemble legs in colour and armature, palpal claw about four teeth.

Falces conical, project slightly forwards, yellowish.

Maxilla greenish-yellow, somewhat spathulate, moderately inclined towards *labium*, which is dark, pointed, about as long as broad.

Sternum oval, slightly angular at coxæ of second pair, rugulose, centre greenish-yellow, margins dark.

Abdomen oblong-oval, base cleft in centre, forming short obtuse tubercles, apices directed forwards, posterior quarter compressed into a stout tail-like projection; at base of compression dorsal surface is produced into a conical nearly upright tubercle, about equal in length but slighter than posterior end of abdomen; very sparsely furnished with light hairs; dorsal surface mottled with stone-coloured brown, dark median band extends to apex of cone. Ventral surface darkest, spinners at apex. *Epigyne* simple, red-brown, circular orifice, labia black-brown, moderately prominent.

Chiefly frequents *Leptospermum*. Waiwera, Te Karaka, A.T.U.

Ariamnes triangulatus, sp. nov. Plate VIII., fig. 6.

Female.—Ceph. th., long, 0·8. Abd., long, 1·7; deep, 1. Legs, 1, 4, 2, 3, = 6·2, 6, 3·7, 2·2, mm.

Cephalothorax yellow-brown, suffused about thorax with brown, rugulose, almost glabrous; oval, about twice as long as broad, slightly compressed forwards, transverse indentation on thorax deep; fovea oval, striæ fairly marked; contour of profile rises from thoracic junction with a moderate curve, forms nearly even line across caput, slopes forwards at ocular area, which projects a little in front. *Clypeus* projects forwards, length about equals depth of facial space.

Posterior row of *eyes* moderately procurved, median pair on lake-coloured rings, have with side eyes a pearly lustre, separated by an interval equal to more than twice their diameter, less than their breadth from hind-laterals, they form with anterior-centrals a nearly quadrilateral figure, broader than long; anterior row recurved, centrals dark, seated on black eminences, rather closer to each other than are posterior pair, close to fore-laterals; side eyes nearly contiguous, seated obliquely on small lake-coloured tubercles.

Legs slender, yellowish, clouded with reddish-brown, armature light hairs and bristles; superior claws—1st pair slightly

curved, weak, few teeth; inferior claw bent, free end fine, curved outwards.

Palpi rather stout, short, resemble legs in colour and armature, palpal claw form of tarsal.

Falces long, nearly linear, directed forwards, yellowish.

Maxilla long, spatulate, inclined towards *labium*, which is broad-conical, more than half length of maxillæ; organs yellowish.

Sternum shield-shaped, yellowish, mottled with lake-brown.

Abdomen somewhat oval, base squarely truncated, centre grooved, prolonged beyond spinners into a stout tubercle, nearly twice length of abdomen proper; profile somewhat triangular, spinners at apex; sparsely clothed with light hairs; integument mottled with various tints of yellowish-brown, brown dorsal band converges round apex at tubercle, which has faint transverse rings. *Epigyne* simple.

Male, immature.—Ceph. th., long, 0.6.—Abd., long, 1.2. Legs 1, 4, 2, 3 = 6, 4.5, 3.3, 2 mm.

Cephalothorax yellowish, lateral margins suffused with brown; sides nearly parallel, twice as long as broad, transverse indentation on thorax, small oval fovea; contour on profile rises at occiput. *Clypeus* projects forwards, slightly exceeds in length depth at ocular area. *Eyes* resemble female's in position.

Legs long, slender, yellowish, suffused and annulated with red-chestnut; armature sparse light hairs, few slender bristles.

Palpi yellowish, humeral joint long, slender; cubital short.

Falces long, somewhat linear, directed slightly forwards, yellowish.

Maxilla long, spatulate, moderately inclined towards *lip*.

Sternum shield-shaped, chocolate-brown, yellow spots.

Abdomen does not differ essentially from female in form or coloration.

Frequents *Leptospermum*, Te Karaka, A.T.U.

Ariamnes attenuatus, sp. nov.

Female.—Ceph. th., long, 1.3; broad, 0.8. Abd., long, 4; broad, 1.5. Legs, 1, 4, 2, 3, = 11, 9.2, 6.8, 3 mm.

Cephalothorax mottled, brown-black, light median band; areolate; elongated, sides nearly parallel, strong transverse indentation, caput roundly truncated; contour at profile forms a moderate arch from thoracic junction, notched at indentation, slopes slightly, rising somewhat abruptly at occiput. *Clypeus* nearly horizontal, about equal to depth of ocular area.

Eyes disposed in two semicircles, forming an oval space, four centrals form a quadrilateral figure, separated by about their radius from laterals, which are contiguous, seated on very low tubercles, have pearly lustre at hind-median eyes; anterior centrals dark, placed somewhat obliquely on prominences.

Legs long, slender, yellowish, spotted and annulated with dark-brown and chestnut-brown; armature few fine erect hairs and slender bristles; superior tarsal claws moderately curved, weak; inferior long, fine.

Palpi stout, nearly as long as cephalothorax, radial joint broadest at apex, red-chestnut; palpal claw fine, moderately curved, about 4 small teeth.

Falces narrow, conical, project moderately forwards, yellowish-chestnut, base dark.

Maxillæ yellowish, long, obliquely truncated on outer side, slightly inclined towards *labium*, which is broader than long, slightly pointed, two-thirds length of maxillæ, dark, light apex.

Sternum long-obovate, brown, spotted and suffused with brassy metallic lustre.

Forepart of *abdomen* somewhat oviform, prolonged beyond spinners into a long cylindrical tubercle, curving slightly downwards, about half-length of abdomen, transversely rugulose; brown-black, mottled with stone-colour, glabrous. *Epigyne*, concavity oval, reddish, labia dark, protuberent, broad, introflexed.

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

Cephalothorax similar in form and coloration to female; anterior median *eyes* rather further apart.

Legs slender, yellowish, clouded or spotted, and annulated with dark chestnut-brown; armature fine hairs, few slender bristles.

Palpi long (2 mm.), slender, resemble legs in colour and armature; humeral joint rather less than one-half length of palpus; cubital joint short; radial twice length of former article, stoutest at articulation with digital joint, which is convex, rugulose, and hairy externally; palpal organs small, on outer side is a sinuate process, apex black, curved, toothed beneath, directed forwards; at basal end is a yellow acuminate apophysis, directed downwards.

Abdomen does not differ essentially from female.

Frequents manuka. Te Karaka, A.T.U.

Genus *Linyphia*, Latr.

Linyphia blattifer, sp. nov. Plate VIII., fig. 7.

Female.—Ceph. th., long, 1. Abd., long, 1·8. Legs, 1, 2, 4, 3.

Cephalothorax light mahogany-brown, median line and margins darker hue, rugulose; oval, moderately compressed forwards, caput roundly truncated; median fovea transverse oval, caput and radial striæ moderately marked; profile line

rises, not very abruptly, from thoracic junction, forms a low arch across caput. *Clypeus* projects forwards, indentation below eyes, in height equals depth of facial space.

Eyes on black spots, posterior row procurved, median eyes rather less than their diameter apart, more than their breadth from hind-laterals; anterior row strongly recurved, central pair black, rather smallest of eight, separated by a space equal to their radius, more than their diameter from side eyes; laterals nearly contiguous, seated obliquely on strong black tubercles.

Legs slender, bright yellow-amber colour; armature erect dark hairs, erect spines on femoral, genual, and tibial joints, circle of weak spines round metatarsi of 3-4; superior tarsal claws—1st pair, fine, slightly curved, about 10 somewhat even teeth; inferior claw, free end fine, one point.

Palpi resemble legs in colour and armature, palpal claw slender, apparently no teeth.

Falces long, linear, vertical, rugulose, reddish-amber colour.

Maxilla broadest at apex, inferior angle obtuse, base chocolate-brown, apices yellow.

Labium oval, everted, about half length of maxillæ, dark.

Sternum broad-cordate, dark chocolate-brown.

Abdomen oviform, convex above, rises abruptly from petio- lum; a not very clearly defined leaf-like mark on dorsal surface, marks and shading, various tints of purple. *Epigyne* represents a remarkably large yellowish-brown appendage, convex above, few hairs, apex directed backwards.

Male.—Ceph. th., long, 1.3; broad, 1. Abd., long, 1.3. Legs, 1, 2, 4, 3. Leg of first pair, 4.5 mm.

Cephalothorax olive-brown, glossy; oval.

Legs 1-2 do not differ much in length; resemble female's in colour and armature.

Palpi, humeral joint about twice length of cubital and radial together, latter articles of about equal length, cubital somewhat globose, projects a long black bristle; radial broad cup-shaped, black bristle; articles yellowish; digital joint large, somewhat oviform, convex and moderately hairy externally, convexities directed towards each other, palpal organs complex, bright reddish-brown; series of, more or less, semi-transparent membranous folds—viewed in front, article appears almost transversely disconnected in centre; close to base of article, on outer side, is a large, reddish-brown, membranous apophysis, curved forwards, concave on outer side, apex truncated.

Abdomen rather narrower than cephalothorax, resembles female's in pattern and coloration.

Taken on shrubs, three examples. Waiwera, A.T.U.

Linyphia melanopygia, Cambr.

Female.—Ceph. th., long, 1. Abd., long, 1.4. Legs, 1-4, 2, 3 = 3.9, 3.5, 2.5 mm.

Cephalothorax yellow-brown, suffused with olive-green, few bristly hairs on forepart of caput; oval, slightly compressed forwards; median fovea rounded in front, somewhat pointed behind, normal grooves moderate; contour of profile moderately arched backwards from ocular area; *clypeus* projects forwards, in height nearly equals depth of facial space.

Hind-centrals and lateral *eyes* have a pearly lustre, large, of nearly equal size; posterior row slightly procurved, hind-centrals rather more than their diameter from posterior laterals, more than that distance from anterior-centrals, rather less than their breadth from each other; fore-centrals smallest of eight, dark, rather less than their diameter from one another, and from fore-laterals; side eyes largest of eight, placed obliquely on low tubercles, nearly contiguous.

Legs moderately slender, 1-4 about equal in length; brownish-yellow; armature stiff black hairs, few fine spines, except on metatarsi; superior tarsal claws—1st pair slight, but somewhat even curve from base, about 8 close fine teeth; inferior claw long, fine, curved, free, and projects outwards, 1 tooth.

Palpi have an olivaceous hue, armed with hairs, few strong spines, digital joint terminates with a rather stout point.

Falces stronger than femoral joint of 1st pair of legs, prominent at base in front, somewhat attenuated at extremities, which are divergent, strong teeth; cocolorous to cephalothorax.

Maxillæ stout, obtusely pointed, inclined towards labium, do not possess characteristic conical eminences of male, strong bristles project from usual slight eminences, colour of falces.

Labium broader than long, brown-black.

Sternum broad-cordate, dark-brown.

Abdomen oval, base squarely truncated, moderately notched; dark orange-red, sparsely clothed with coarse dark hairs, broad black ring round spinners, which are yellowish. *Epigyne* represents a prominent blackish hood, concave within, centrally produced into a semicircular band, attached to integument on posterior side.

The *male* is described by the Rev. O. P. Cambridge in the "Proc. Zool. Society," 1879, from an imperfect example in Mr. A. S. Atkinson's collection, probably from Nelson. Relative length of *legs* 1, 4, 2, 3; 1-4 nearly equal in length. Both in form and coloration it resembles the female. Specimens may be found about loose debris, under old bags, etc.; the female constructs a fair sized horizontal web, with a fine close mesh. Mature examples are to be found throughout the year.

Te Karaka, Auckland, A.T.U.

Genus **Erigone**, Sav.

Erigone atriventer, sp. nov.

Female.—Ceph. th., long, 0·9. Abd., long, 1·5. Legs, 1-4. 2-3 = 4; 3·3 mm.

Cephalothorax areolate, glossy, yellowish-brown; three rows of black bristle-like hairs converge from base at caput to ocular area; oval, compressed forwards, caput convex, lateral margins deep; median fovea transverse oval, radial and caput striæ fairly marked; contour of profile rises somewhat abruptly from thoracic junction, represents a double arch; *clypeus* directed moderately forwards, projects laterally, indentation below eyes, in height nearly equal to depth of facial space.

Posterior row of *eyes* slightly procurved, about equidistant, median pair separated by rather less than their diameter, rather more than that interval from anterior centrals; hind-centrals and laterals—which are contiguous, and placed obliquely on strong tubercles—are large, pearl-grey lustre; anterior row recurved, central pair small, dark, rather less than their breadth from each other, and from fore-laterals.

Legs long, moderately slender, 1-3, 2-3, about equal in length, bright yellow-brown; armature stiff black hairs, few long bristle-like spines, none on metatarsi; superior tarsal claws—1st pair, long, fine, form an even curve from base, about 6 fine teeth, increasing in length; inferior claw long, moderately bent.

Palpi rather long, olivaceous tinge, black hairs, strong bristles, digital joint terminates with a short point.

Falces gibbous at base, taper towards apex, directed inwards, fang and teeth strong; yellowish, suffused with brown.

Maxilla strong, dilated towards extremity, pointed, curving towards *labium*, which is somewhat oval; organs greenish-black, apices pale.

Sternum large, cordate, areolate, brown-black.

Abdomen oviform, convex, projects moderately over base of cephalothorax, brown-black, sparsely clothed with stiff black hairs, spinners greenish-yellow. *Epigyne* represents a triangular, transversely wrinkled, membranous eminence, about as broad as long, apex directed forwards, margins curve within the concavity, and are produced into a short, rather thick, apophysis, curved downwards, directed backwards.

Taken in July, amongst grass. Te Karaka, A.T.U.

Genus **Theridium**, Walck.

Theridium melanozantha, sp. nov. Plate VIII., fig. 8.

Male.—Ceph. th., long, 1·8; broad, 1·4. Abd., long, 8; broad, 1·5. Legs, 1, 4, 2, 3 = 10, 9·5, 7, 5 mm.

Cephalothorax glossy light-brown, marginal zone and median band wide, dark olive; broad oval, compressed forwards, caput roundly truncated; median indentation deep, transverse oval, caput and radial striæ moderately marked; contour of profile represents a low double arch; *clypeus* projects forwards, height equals depth of facial space.

Anterior row of *eyes* recurved; posterior row sensibly recurved, equidistant, interval between them rather more than their diameter; four centrals form a square, about one eye's breadth apart, anterior pair dark; latter pair closer to fore-laterals than they are to each other; side eyes separated by a space nearly equal to their radius, seated slightly obliquely on separate dark tubercles.

Legs long, slender, dark straw-colour, chocolate-brown annuli at articulation of joints; fine erect black hairs; superior tarsal claws—1st pair curved, 4 strong open teeth, increasing in length and strength, terminal tooth nearly equals free end in strength; inferior claw long, fine, sharply bent, 1 strong curved tooth, directed forwards.

Palpi resemble legs in colour, humeral joint long; cubital short, cup-shaped; radial appanate; digital joint large, somewhat cupuliform, convex and hairy externally, convexities directed towards each other, prolonged and tapering beyond bulb, projecting at apex is a greenish, membranous, pointed process; palpal organs complex, bulb large, convoluted, bright reddish-brown, attached to extremity is a remarkable long, broad, ribbed, spiral, tapering, black process, which, after making four revolutions in contact with bulb—truncating apex of article—fine end sometimes springs off laterally into an independent curl.

Falces vertical, conical, divergent at apex, glossy, yellow-amber colour.

Maxilla spathulate, inclined towards *labium*, which is a broad-oval; organs yellowish, base chocolate-brown.

Sternum cordate, rugulose, chocolate-brown, broad light mark in centre.

Abdomen ovoid, projects over base of cephalothorax; creamy-white, two brownish bands—in some examples consisting of continuous, rather broad rings, in other series of more or less disconnected spots, of a lighter hue—converge from base to spinners; similar bands encircle lateral margins. Ventral surface black-brown; shield-like creamy-coloured mark in centre.

Female (immature) resembles male in form and coloration.

Palpi yellowish, few black hairs and fine bristles; palpal claw short, free end more than half length of claw, 4 strong teeth, resembling free end in form, 2 apical teeth nearly equal in strength.

Six examples were captured at Waiwera, A.T.U.

Theridium tuberculum, sp. nov.

Female.—Ceph. th., long, 1. Abd., long, 2·8; broad, 2. Legs, 1, 4, 2, 3 = 5·6, 4·2, 4, 2·9 mm.

Cephalothorax glossy brown-black, few strong bristles on caput; oval, about as broad as long, compressed forwards, caput convex, projects in front, lateral index equals twice diameter of a side eye; median fovea large transverse oval, radial striæ broad; contour of profile rises rather abruptly from thoracic junction, slopes across caput; *clypeus* projects forwards, in height about equal to depth of facial space.

Eyes large, posterior row sensibly procurved, median pair separated by nearly their diameter, their radius from hind-laterals; anterior row recurved, centrals black, seated obliquely—rather more than their breadth apart—on eminences, rather further from hind-centrals than they are from each other, close to fore-laterals; side eyes rather smaller than posterior centrals, have their pearly lustre, are placed obliquely on strong lake-coloured tubercles, nearly contiguous.

Legs moderately slender, 2–4 nearly equal in length; semi-pellucid stone-colour, dark-brown annuli; dark stiff hairs, few erect strong bristles; superior tarsal claws—1st pair, 6 open comb-teeth; inferior claw fine, 1 point.

Palpi resemble legs in colour and armature, base of palpal claw straight, free end sharply curved, 6 open comb-teeth.

Falces long, somewhat linear, convex, vertical, glossy mahogany-brown.

Maxillæ long, spathulate, inclined towards *lip*, which is nearly as long as broad; organs dark-brown, pale margins.

Sternum cordate, areolate, chocolate-brown.

Abdomen oval, yellowish olive-green, thickly mottled with creamy-white lobate spots, suffused with reddish-chocolate; on fore-part there is a black median band, with three cross bars, partially obliterated in centre where it throws off, round lateral margins, oblique creamy-coloured, sinuated lines, which have black patches on anterior side; on posterior curve of abdomen is a remarkable large, low, pointed tubercle, apex pale-yellow, nearly encircled by lemon-coloured, brown-lake, and black rings, posteriorly the pale-yellow flows over the darker colours, and apparently forms a series of creamy-coloured lobate flecks as far as spinners, which are prominent, placed about centre of ventral surface; abdomen sparsely clothed with bristle-like dark hairs. *Epigyne* glossy-black, conoid, orifice at apex, which is directed towards base of abdomen, attached to integument along its inner side.

Single specimen. Te Karaka, Auckland, A.T.U.

Theridium maculopes, sp. nov.

Female.—Ceph. th., long, 1.7; broad, 1.5. Abd., long, 3; broad, 2.2. Legs, 1, 2, 4, 3. = 10, 8, 6, 4.5 mm.

Cephalothorax areolate, yellow-brown, broad, brown median band extends from occiput to base, marginal zone similar hue, few bristles on occiput; oval, compressed forwards; median fovea nearly circular, deep, normal grooves moderately marked; caput convex, roundly truncated, lateral index rather less than space between an anterior lateral eye and the fore-central furthest from it; contour at profile rises with an abrupt curve, arched across caput; *clypeus* projects forwards, height rather exceeds depth of facial space.

Anterior row of *eyes* recurved, posterior row slightly pro-curved; centrals nearly form a square, hind-median pair separated by their diameter, rather more than that interval from side eyes next to them and anterior-centrals, which are prominent, their breadth and a quarter apart, close to fore-laterals; side eyes nearly contiguous, seated obliquely on strong dark tubercles.

Legs slender, yellowish, first pair brown annulations at articulation of joints, marked—especially femora—with brown spots; lake-chocolate spots and annuli on hind pairs; armature black hairs, few bristle-like spines, strong curved hairs on metatarsi and tarsi of two hind pairs; superior tarsal claws—1st pair, 8 teeth, 7 basal close, fine, terminal tooth strong, resembles free end; inferior claw fine, 1 long point.

Palpi short, yellowish, brown spots, stiff hairs on digital joint; palpal claw moderately curved, 5 teeth, increasing greatly in length and strength, small point at base.

Falces vertical, conical, rather divergent at apex, yellowish, clouded with brown.

Maxillæ long-oval, somewhat pointed, inclined towards lip, yellowish-reddish apices; *labium* oval, strongly convex, nearly half length of maxillæ, greenish-yellow, dark-red apex.

Sternum broad-cordate, greenish-yellow, mottled with olive-brown.

Abdomen oval, base truncated, hairs sparse, integument mottled with chocolate-brown and creamy colour; extending from base for about one-fourth along dorsal surface, is a narrow-oval creamy band with black margins, which project at right angles at either end; this part forms the petiole to the brown, black-margined, runcinate, leaf-like dorsal mark, in centre of which are a series of more or less defined somewhat triangular creamy-coloured marks. In centre of a greenish-yellow transverse eminence is the *epigyne*, which is brownish, reniform, concave; labia on posterior side moderately deep, and produced into a short, narrow, lip-like process, with incurved margins.

Several specimens. Canterbury, A.T.U.

Theridium viridana, sp. nov.

Female.—Ceph. th., long, 1. Abd., long, 2. Legs, 1, 2, 4, 3; leg of 1st pair, 4 mm.

Cephalothorax pea-green, glabrous; sides rounded, moderately compressed forwards, fovea and normal grooves faint; caput comparatively long, broad, convex; contour of profile rises somewhat abruptly from thoracic junction, forms low arch across caput; *clypeus* vertical, height equals depth of facial space.

Posterior row of *eyes* sensibly procurved, separated by an interval equal to about twice their diameter, median pair on dark lake-coloured rings, have, with side eyes, a pearly lustre; anterior row recurved, nearly equidistant, rather closer to one another than are eyes of hind row; median pair dark, on black spots, as far from each other as they are from hind-centrals; laterals seated obliquely, nearly their radius apart, on separate dark tubercles.

Legs long, slender, yellowish-green; armature black hairs; 1 exceeds 2 a little in length, 3-4 nearly equal; superior tarsal claws—1st pair rather short, about 5 comb-teeth; inferior claw moderately long.

Palpi resemble legs in colour and armature; palpal claw fine, curved, about 6 teeth.

Falces strong, vertical, somewhat linear, greenish-straw-colour.

Maxillæ rather broad at extremity, inferior angle obtuse, projects over *labium*, which is conical, three-fourths length of maxillæ, darker yellowish hue.

Sternum cordate, glossy, deep straw-colour.

Abdomen narrow-ovate, bright pea-green, series of irregular shaped marks of a lighter hue, largest on fore-part and lateral margins; posterior end in most examples crimson. *Epi-gyne* prominent, red-chestnut, somewhat quadrilateral lip, sides incurved, apex rounded.

Frequents *Leptospermum*. Waiwera, A.T.U.

Theridium flabellifera, sp. nov.

Female.—Ceph. th., long, 1·8; broad, 1·4. Abd., long, 2·5; broad, 1·8. Legs, 1, 2, 4, 3=9, 5·5, 4·5, 3·5 mm.

Cephalothorax glossy, yellow-amber colour; oval, moderately compressed forwards; lateral index of caput nearly equals depth of facial space; median fovea small, oval, striæ irregular, but well-marked; contour of profile rises from thoracic junction at an angle of about 65°, very slight arch across caput. *Clypeus* convex, projects forwards, in height nearly equals depth of ocular area.

Eyes on black rings, form two evenly curved rows, enclosing a narrow oval space, four centrals nearly form a square; posterior median eyes rather less than their diameter apart, more than that space from hind-laterals; anterior centrals dark, separated from each other by a space equal to their diameter, less than that interval from fore-laterals; side eyes nearly contiguous, placed obliquely on moderate tubercles.

Legs bright deep straw-colour; armature black erect hairs, few slender spines; first pair of legs longest and strongest; superior tarsal claws—1st pair, 7 open teeth, not differing greatly in length or strength; inferior claw, free and directed outwards, 1 tooth.

Palpi resemble legs in colour and armature; palpal claw somewhat form of tarsal claw; teeth broken.

Falces conical, project sensibly forwards; yellowish.

Maxillæ straw-colour, somewhat spatulate, inclined towards *labium*, which is oval, nearly as long as broad, half length of *maxillæ*, deep yellow.

Sternum cordate, colour of lip.

Abdomen oviform, yellowish-olive, thickly marked with creamy-coloured flecks, fan-shaped mark on dorsal surface, fore-half heart-shaped, apex directed forwards, black-brown, margined and marked with reddish tints, posterior half narrow, linear, pale-yellow, irregular line of light-brown down centre. *Epigyne* transversely wrinkled eminence, orifice semicircular.

Taken on *Leptospermum*; Waiwera, A.T.U.

Theridium venustulum, sp. nov.

Female.—Ceph. th., long, 1. Abd., long, 1.9; broad, 1.8. Legs, 1, 2, 4, 3. First pair, 6.4 mm.

Cephalothorax glossy, yellow-amber colour; broad-oval, moderately constricted at caput, which is roundly truncated; median indentation and normal grooves moderately marked; profile line rounded posteriorly, rises to occiput; *clypeus* projects forwards, in height rather more than half depth of facial space.

Eyes about equal in size, represent two curved rows, enclosing a narrow oval space, four centrals form a square, are separated by a space equal to rather more than their diameter, anterior pair dark; lateral eyes nearly contiguous, seated obliquely on small black tubercles.

Legs slender, yellow-amber colour, 1-4, reddish annuli at articulation of tibial and metatarsal joints; 1 exceeds 2-4 a little in length, two latter nearly equal; armature long hairs, few fine erect bristles; superior tarsal claws—1st pair, 5 comb-teeth; inferior claw 1 short tooth, point behind.

Palpi like legs in colour and armature; palpal claw 6 comb-teeth.

Falces pale stone-colour, somewhat linear, project sensibly forwards, strong teeth.

Maxillæ somewhat linear, rounded on outer side, yellowish; *labium* oval, rather broader than long, nearly half length of *maxillæ*, reddish-amber colour.

Sternum cordate, yellow-amber, glossy.

Abdomen oviform, projects over base of cephalothorax; light fine hairs, pale stone-colour, tinged with pink; median band broad, tapers off at either end, reddish-lake, pale margins. Ventral surface colour of dorsal, spinners small. *Epigyne* represents a moderate-sized, slightly concave space, encircled by a very narrow dark-brown membrane, the slightly tumid pale-brown margins curve towards each other on anterior side, but are disconnected by a narrow space.

Taken on *Leptospermum*; Waiwera, A.T.U.

Theridium albo-gullatum, sp. nov. Plate VIII., fig 11.

Male.—Ceph. th., long, 1. Abd., long, 1.1. Legs 1, 2, 4, 3 = 6.2, 4, 3.3, 2.3 mm.

Cephalothorax areolate, glossy, yellowish-brown, small olivaceous flecks, chiefly along grooves and about caput, on fore-part of which are few bristle-like hairs; broad-oval, compressed forwards, caput projects forwards, projection blackish; median fovea dark, large oval, *striæ* well-defined; contour of profile rises rather abruptly from thoracic junction, forms a faint curve across caput; *clypeus* projects forwards, height about equal to depth of ocular area.

Eyes large, posterior row sensibly recurved, median pair encircled by lake-coloured rings, have pearly lustre of laterals, nearly their diameter apart, about that interval from side eyes next to them; anterior row strongly recurved, centrals dark, largest of eight, three-fourths their diameter from each other, closer to fore-laterals, more than their breadth from posterior centrals; lateral eyes seated obliquely on somewhat triangular lake-coloured tubercle, nearly contiguous.

Legs long, moderately stout, yellowish, chocolate-brown annulations; femora of 1 darkest, 3-4 greenish tinge; armature long, stiff black hairs, few long fine spines, none on metatarsi; superior tarsal claws—1st pair, 7 teeth; inferior, 2 small teeth.

Palpi rather short, humeral and cubital joints yellowish; radial somewhat crateriform, about equal to cubital in length; digital joint oviform, convexities hairy, directed towards each other, project beyond bulb; latter yellowish-brown, viewed from beneath it represents a smooth, convex, oval eminence; on fore-half is a somewhat circular, narrow, brown membrane terminating at apex in a short black spiral process.

Falces vertical, somewhat linear, glossy amber-colour.

Maxillæ long, somewhat tapering, curved towards *labium*, which is broader than long, everted; organs yellowish.

Sternum broad-cordate, yellowish.

Abdomen oval, black-margined indentation at base; olive-brown; a series of oblique bands, formed of wreath-like clusters of large creamy-white flecks, with pinkish centres, extend from base to spinners, converging round lateral margins, leaving a long open space on forepart of median line, dark spot towards posterior end; sparsely clothed with long black hairs, few bristles; ventral surface brownish-yellow.

Two specimens, taken on webs formed of a few irregular lines, amongst long grass; June–July. Te Karaka, A.T.U.

Fam. DRASSIDÆ.

Genus *Drassus*, Walck.

Drassus formicarius, sp. nov.

Male, immature.—Ceph. th., long, 3; broad, 2. Abd., long, 6; broad, 2. Legs, 4, 1, 2, 3=8.5, 7.8, 7, 5.5 mm.

Cephalothorax chocolate-brown, sparsely clothed with short fine yellowish hairs; oval, convex above, compressed forwards, somewhat squarely truncated posteriorly; median striæ rather faint; contour of profile represents a nearly horizontal line dipping moderately at base; *clypeus* in height equals diameter of a fore-central eye.

Posterior row of *eyes* procurved, median pair oval, closer to one another than they are to hind-laterals a space equal to diameter of latter eyes, which rather exceed former in size; anterior row procurved, centrals largest of eight, about twice size of fore-laterals, separated from each other by an interval equal to rather more than their radius, closer to side eyes next to them; space between laterals nearly equal to that between centrals.

Legs moderately strong, yellow-brown, broad olive-brown annulations at articulation of joints, faint or absent on terminal articles; armature fine hairs (on both specimens), only 1 spine at extremity of tibiæ and metatarsi of 4 pair; genual joints of 1–2 about equal in length, tarsi about one-fourth shorter than metatarsi; tarsal claws—1st pair, base straight, 4 open somewhat crooked teeth, point at base; claw of fourth pair, 8 teeth increasing in length and strength; hairs of claw-tuft dilated towards extremity, flattened, extend beneath nearly entire length of tarsi of 1–2, and along sides of metatarsi.

Palpi yellowish, humeral joint rather longer than cubital and radial together, latter articles about equal in length.

Falces rather short, conical, convex, divergent, project moderately forwards, greenish-brown.

Maxillæ long, dilated and rounded at extremity, slightly curved round *lip*, which is conical, large, nearly equal to maxillæ in length, chocolate-brown.

Sternum long-oval, somewhat pointed at both ends, rugulose, chocolate-brown, white hairs.

Abdomen linear-oval, moderately convex above; greenish-slate colour, two broad, transverse, pale-yellow stone-coloured bands, disconnected on median line, about equidistant from each other and base of abdomen, a trilobate mark of similar hue above spinners, which have the same yellowish tint; sparsely clothed with short fine hairs; ventral surface light-brown.

I am indebted for the first specimen to Mrs. Nathan, who captured it on the walls of the Waiwera Hotel; the second example was amongst Mr. Joseph Mayo's collection, from Drury.

Female.—Ceph. th., long, 5; broad, 3. Abd., long, 7; broad, 4. Legs, 4, 1, 2, 3 = 13, 12, 11, 10 mm.

Cephalothorax in colour and form resembles male, median indentation longitudinal, moderately marked.

Legs moderately stout, yellow-brown, faint annuli.

Palpi resemble legs in colour, short, dense hairs at apex of digital joint; palpal claw short, free end projects beyond hairs, teeth (?).

Abdomen does not differ essentially in form or coloration from males; *epigyne* lake-black, large oval, rugose, a somewhat hippocrepiform low eminence at anterior end.

Waiwera, A.T.U.

Fam. THOMISIDÆ.

Sub-Fam. PHILODROMINÆ.

Genus *Hemiclæa*, Thorell,

Hemiclæa plantus. Plate VIII., fig. 9.

Male.—Ceph. th., long, 6; broad, 4.2. Abd., long, 7.5; broad, 3. Legs, 2, 4, 1-3. = 24, 22, 17 mm.

Cephalothorax glossy, red-mahogany colour, sparsely clothed with light pubescence, strong black hairs about margins; oval, much depressed, moderately constricted forwards; caput squarely truncated, lateral index about equal to space between lateral eyes, two somewhat cuniform indentations on median line; thorax squarely truncated, median indentation longitudinal, caput and radial striæ moderately marked; *clypeus* in height nearly equal to diameter of an anterior central eye.

Posterior row of *eyes* sensibly recurved, median pair smallest of eight, closer to one another than each is to the hind-lateral next to it; anterior row straight, central eyes largest of eight, separated by nearly their diameter, about same space from hind-

centrals, with which they form a trapezoid, more than their breadth from fore-laterals, latter eyes equidistant from hind-laterals and hind-centrals.

Legs moderately strong; yellow-brown, terminal articles redmahogany; armature light pubescence, long, fine, erect black hairs; femora, on superior surface, 2 slender spines; tibiæ, about 3 on inferior side; metatarsi, 2 at base of article; on 1-2 scopula extends nearly entire length of penultimate joints; tarsal claws—1st pair, coarse, moderately curved; inner claw 15 teeth, 12 basal somewhat even comb-teeth, 3 terminal, coarse, curved backwards; outer claw, 4 coarse sparse teeth; claw-tuft linear, equals claw in length.

Palpi yellow-brown, long, slender; humeral joint long, group of 3 spines, dark hairs; cubital and radial comparatively short, latter reddish, produced above into a broad-subulate process; digital joint oviform, convex and hairy externally; bulb, reddish, large, directed backwards; viewed in front, somewhat hippocrepiform, face concave, concavity shallow, margins wide introflexed; on fore-part of bulb is a short, curved, black apophysis.

Falces short, somewhat conical, project forwards at base, reddish-black, two rows short teeth.

Maxillæ reddish-black, broadest at articulation of palpi, terminal half nearly linear, rounded, divergent; *lip* conical, apex rounded, about half length of maxillæ, blackish.

Sternum oval, yellow-brown, light pubescence.

Abdomen stone-brown, shading off to slate-colour on lateral margins, elliptical, base squarely truncated, much depressed.

Male bears a marked resemblance to the female,* differing chiefly in the actual and relative length of the legs, and slenderness of abdomen.

Te Karaka, A.T.U. Otago, P. Goyen.

Genus *Philodromus*, Walck.

Philodromus sphæroides, sp. nov. Plate VIII., fig. 10.

Male.—Ceph. th., long, 2.6; broad, 2. Abd., long, 3.9; broad, 1.9. Legs, 1, 2, 4, 3=10, 9.9, 5.1, 5 mm.

Cephalothorax deep pea-green, in some examples lake-coloured about frontal region; broad-oval, slightly compressed forwards, caput index equals space between anterior lateral and posterior median eye furthest from it; median indentation and striæ not well-marked; contour of profile rises from thoracic junction at an angle of about 45°, slight slope across caput; *clypeus* nearly vertical, in height equal to three-fourths depth of ocular area.

*Vide description "Trans. N.Z., Inst.," vol. xiii., p. 199.

Legs pea-green, yellow tinge, metatarsi and tarsi red-lake; 1-2, and 4-3, about equal in length and strength, sparsely furnished with hairs, except at extremities, slight spines on femoral, tibial, and metatarsal joints; tarsal claws—1st pair, slightly sinuated, moderately long and curved; inner claw 12 teeth, 8 rather fine comb-teeth increasing in length, 4 coarse terminal teeth; outer claw 8 open teeth increasing much in strength, claw-tuft linear, equals claw in length.

Palpi shorter than cephalothorax, yellowish-green; humeral joint rather exceeds cubital and radial together in length; former projects a strong bristle, is widest at its articulation with radial joint, which is about equal in length, latter article produced, on outer side, into a broad curved apophysis, apex lobed; below it, margin is produced into a broad, curved apophysis, concave, apex directed inwards, lake-coloured; digital joint red-chestnut, oviform, convex and hairy externally, bulb moderately prominent; a spiral brown beading—in contact with face of bulb—starts from centre, follows margin of convexity, terminates at base.

Falces vertical, strong, rugose, greenish, clouded with lake-colour, more or less dark beading on outer side.

Abdomen cylindrical-oval, bright pea-green, spinners usually lake-coloured.

Common on *Leptospermum*, male-female; many of the females taken at Waiwera were larger (*max.*, 8 mm.; *min.*, 5 mm.) than the single example captured at Lake Tekapo, Canterbury.* All had the coloration of the male. *Clypeus* of female in height equals three-fourths depth of ocular area. Palpal claw resembles tarsal in form, 5 rather coarse teeth.

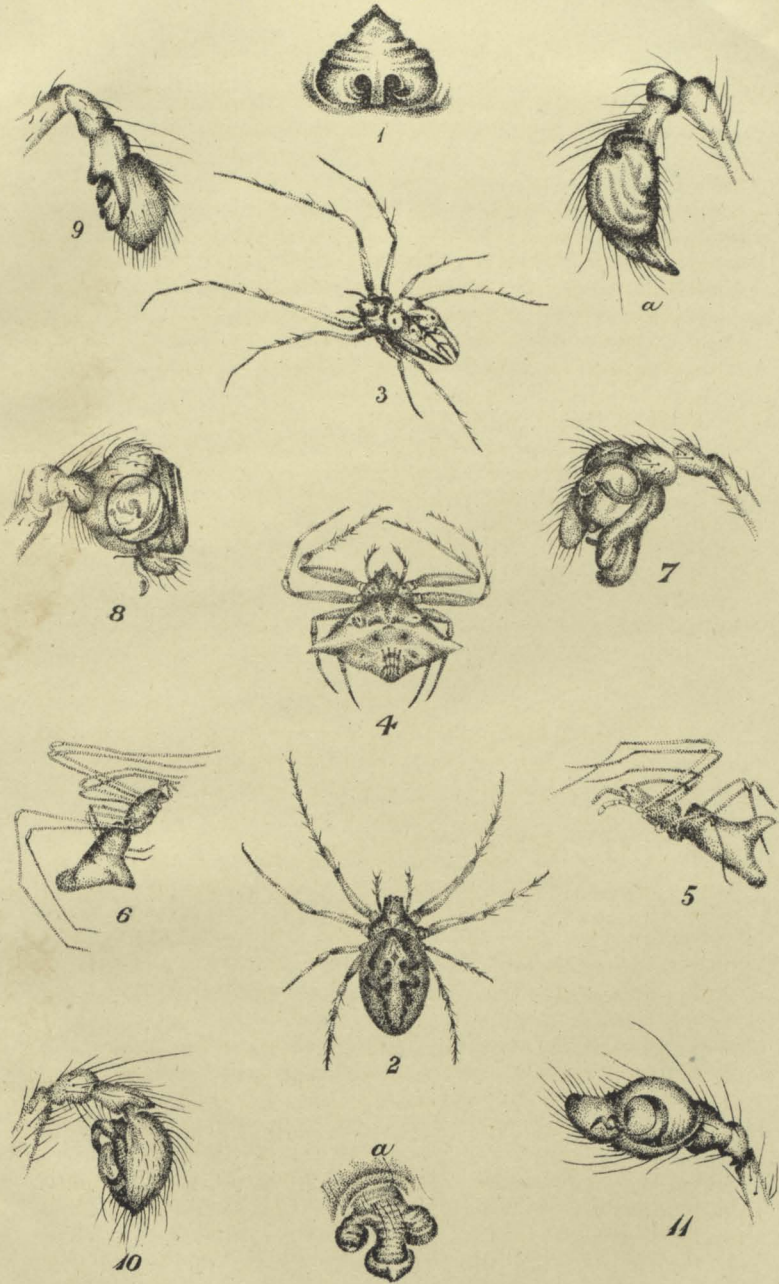
Philodromus anbarus, sp. nov.

Male.—Ceph. th., long, 1.9; broad, 1.9. Abd., long, 2.5; broad, 1.5. Legs, 1, 2, 4, 3 = 8, 7.5, 4, 3.5 mm.

Cephalothorax as broad as long, sides rounded, slightly compressed forwards; dark pea-green, two broad lake-coloured bands converge from ocular area, which has same hue, along caput striæ as far as shallow median fovea, normal grooves faint; profile line rises at an angle of 40°, curves slightly across caput; height of *clypeus* rather exceeds space between anterior median eyes.

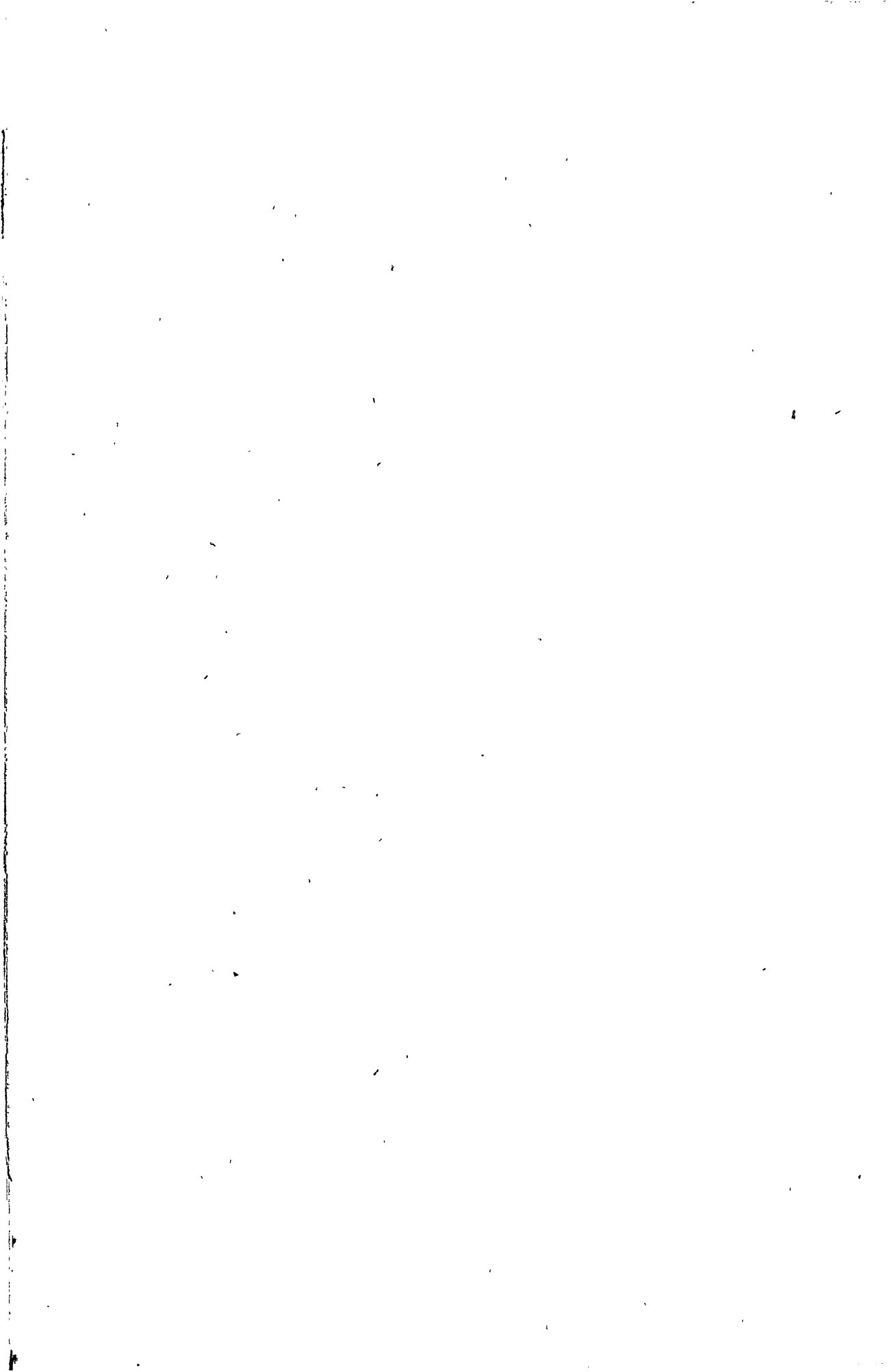
Legs slender, 1-2, 4-3, about equal in length and strength, brownish-yellow; suffused and annulated with dark-brown, hind-pairs greenish; armature few fine hairs, short spines on femora, genua, tibiæ, and metatarsi; tarsal claws—1st pair rather thick, curved, tip bent, 5 strong open teeth, form of free

* *Vide* description, "Trans. N.Z. Inst.," vol. xiii., p. 44.



A.T.U. delt

NEW ZEALAND SPIDERS.



end, 1 short basal tooth; claw-tuft sparse, long, slender plumose hairs.

Palpi humeral and cubital joints green; former exceeds cubital and radial in length, latter articles equal; base of cubital slender; radial, yellowish-brown, somewhat linear, short bi-cornute apophysis on outer side; digital joint same tints, small, oviform, tapering, convex and sparsely haired externally; oval concavity on inferior surface, margins glossy-brown, reddish bulb in centre.

Falces broad at base, tapering, vertical, rugose; reddish-black.

Maxilla inferior angle somewhat pointed, superior rounded, inclined towards *labium*, which is oval, more than half length of maxillæ; these organs have a rich chestnut hue.

Sternum cordate, green.

Abdomen cylindric-oval, resembles female's in pattern and coloration.

Numerous specimens; frequents *Leptospermum*. Waiwera.*

Philodromus ovatus, sp. nov.

Female.—Ceph. th., long, 2.8; broad, 2.4. Abd., long, 3.5; broad, 2.2. Legs, 1-2, 4, 3 = 9.5, 5.5, 5 mm.

Cephalothorax pea-green, lake-colour about ocular area; broad-oval, slightly compressed forwards; caput roundly truncated, lateral index equals rather more than space of side eyes; median fovea shallow oval, normal grooves faint; profile line rises at an angle of 45°, slight arch across caput; height of *clypeus* nearly equals space between anterior median eyes.

Four central *eyes* nearly form a quadrilateral figure, posterior side slightly broadest; lateral eyes placed on prominent tubercles, nearly as far from one another as each is from the posterior lateral eye next to it; fore-lateral largest of eight.

Legs pea-green, faintly shaded with lake on anterior surface of femora and tarsi; 1-2 about equal length, former slightly stouter; slender spines on femora, double row under tibiæ and metatarsi; few, somewhat irregular spines on 3-4; black hairs, numerous at extremities; tarsal claws—1st pair, 8 teeth, 7 coarse divergent teeth, 1 short tooth at base; inner claw 12, except 2 basal, open, somewhat coarse teeth; claw-tuft longer than claw, hairs linear; scopula hairs on tarsi.

Palpi like legs in colour, about twice length of *falces*, black hairs, few strong bristles; palpal claw form of tarsal; 5 strong, open, somewhat even teeth.

Falces vertical, conical, broad at base, greenish.

* The female was described ("Trans. N.Z., Inst.," vol. xiii., p. 44.) from two examples in Capt. T. Broun's collection; owing to the action of spirit, the cephalothorax and legs were erroneously described as amber-colour, instead of pea-green.

Maxillæ broadest at extremity, obliquely truncated, inclined towards *lip*, which is triangular, more than half length of *maxillæ*, greenish-yellow.

Sternum cordate, greenish-yellow.

Abdomen oblong-ovate, moderately convex above; pea-green, white oval mark runs through six impressed spots; marginal zone corrugated, shaded with lake; ventral surface greenish; *epigyne* greenish-yellow; fore-part represents a well-defined circular band, labia on posterior side, confluent carinate, dividing organ into concave circular depressions.

Taken on *Leptospermum*, single specimen; Waiwera, A.T.U.

Fam. LYCOSIDÆ.

Genus *Lycosa*, Latr.

Lycosa adumbrata, sp. nov.

Female.—Ceph. th., long, 4; broad, 2.7. Abd., long, 4; broad, 3. Legs, 4, 1-2-3 = 12.5, 9 mm.

Cephalothorax oval, moderately compressed forwards; yellow-brown, marginal zone dark-brown, from ocular area, which is brown-black, a large oval brown mark extends to base of thorax, posterior portion of caput yellow-brown, striæ dark, well-marked, median-line on thorax, and radial striæ yellow-brown; a narrow, oval, grooved eminence occupies crown of thorax; lighter parts and facial space clothed with short adpressed whitish hairs, erect black hairs on caput; contour of profile rises at an angle of 70°, slopes forwards with an even curve, dipping abruptly at second row of eyes; *clypeus* vertical, in height equals space between first and second row of eyes.

Anterior row of *eyes* small, sensibly procurved, laterals slightly the largest, rather closer to median pair than the latter are to each other, a space about equal to their diameter and a quarter; eyes of second row large, about one-third larger than dorsal eyes, less than their radius from laterals of anterior row, separated from each other by an interval which slightly exceeds their diameter; eyes of third row placed obliquely, rather further from one another than they are from eyes of second row.

Legs long, moderately strong; one pair rather stoutish, 1-2-3 about equal in length; yellow-brown, narrow well-defined brown annuli, 4 on femora, 3 on tibiæ and metatarsi; armature fine erect hairs, 2 or 3 short spines on femoral joints, 6 or 7 long slender spines on tibial and metatarsal joints; superior tarsal claws—4th pair, strong, evenly curved, 8 somewhat coarse open teeth; inferior claw thick, no teeth.

Palpi yellowish, fine hairs, long slender bristles, few spines; palpal claw short, thick, 4 coarse open teeth.

Falces somewhat conical, vertical, sharply convex, red-mahogany colour, few longitudinal dark streaks, white hairs.

Maxillæ spathulate, brownish-red, inclined towards *labium*, which is somewhat oval, more than half length of *maxillæ*, dark-brown, numerous short white hairs.

Sternum broad-cordate, dark-chocolate colour.

Abdomen oval, yellow-brown, clouded with black-brown; lighter tints clothed with white hairs—with the exception of an acuminate mark, which extends from base for two-thirds along dorsal line; four broad, irregular, somewhat acute-crenate transverse bands; dark patches clothed with dark hairs. Ventral surface lighter than dorsal, whitish hairs; spinners yellowish, short. *Epigyne* brownish, moderately prominent, oval, centrally produced, on anterior side, into a tapering projection; labia tumid, obliquely truncated on posterior side, concavities at truncation lake-coloured.

Single specimen. Te Karaka, A.T.U.

Fam. ATTIDÆ.

Genus *Attus*, Walck.

Attus aquilus, sp. nov.

Female.—Ceph. th., long, 1.5. Abd., long, 1.8. Legs, 4, 1, 2-3.

Cephalothorax rugulose, elevated; thorax less than one-fourth longer than caput, latter slightly compressed forwards; chocolate-black, moderately clothed with orange and white papillæform hairs; contour of profile rises from thoracic junction at an angle of about 60°, slopes forwards across ocular area; *clypeus* very narrow.

Anterior row of *eyes* slightly recurved, close to one another, irides chiefly whitish hairs; posterior eyes not prominent, slightly further from each other than they are from anterior laterals; small intermediate pair closer to fore-laterals; ocular area one-third broader than long.

Legs: 4 slightly exceeds 1 (2 mm.) in length; 2-3 about equal in length; femoral joints brown, sparsely furnished with white and orange papillæform hairs; other joints yellowish, brown annuli at articulations; three curved fine spines on superior surface of femora, latter joints of 1-2 stout; metatarsal spines stronger than tibial; tarsal claws—1st pair, outer, 1 strong tooth; inner claw about 13, 12 close teeth, 1 strong terminal tooth; claw-tuft linear, equals claw in length.

Palpi yellow-brown, radial and digital joints yellowish, white hairs.

Falces short, applanate, in length rather more than diameter

of an anterior central eye; transversely wrinkled, yellow-brown, base dark.

Maxillæ somewhat quadrate, slightly rounded. *Labium* oval, broader than long; organs yellowish, base dark, lips darkest.

Sternum somewhat ovate, chocolate-brown.

Abdomen oviform, projects over base at cephalothorax; moderately convex above, rugose, black, sparsely-clothed with orange and white papillæform hairs; spinners long, bright-brown. *Epigyne* moderately prominent, large, transverse oval, centrally divided by a broadish keel, fluted margins, within concavities, terminate on anterior side in dark spiral processes.

Male.—Ceph. th., long, 1.5. Abd., long, 1.2.

Cephalothorax of male does not differ essentially from female's in form—slightly broader—or colour.

Legs 1–2 strong, femoral joints appanate; 1 pair stoutest, genua and tibiæ strong, former article nearly equals latter in length; metatarsi and tarsi about equal.

Palpi brownish, few white hairs; humeral joint strong, three-fourths length of palpus; cubital short, broadest at its articulation with radial joint, which is somewhat cupuliform, projects on outer side, a fine-pointed, curved, black apophysis; digital joint large, oviform, yellowish, convex and hairy externally, bulb large, somewhat conical, apex directed backwards, dull orange-red, short black spine-like apophysis projects downwards and outwards from fore-part.

Abdomen projects rather over cephalothorax, and is more pointed at either end than female's; red mahogany hue, clouded with dark-brown, sparsely clothed with papillæform hairs.

The cephalothorax in some female specimens has a red-mahogany hue, clouded with black-brown; abdomen mottled with yellowish-brown and dark-brown.

Captured on rocks about road-cuttings; Waiwera, A.T.U.

Attus bimaculosus, sp. nov.

Female.—Ceph. th., long, 2; broad, 1.5. Abd., long, 2.5; broad, 1.3. Legs, 4, 1, 2, 3.

Cephalothorax yellow-amber colour, two black spots on caput, rarely absent; few erect hairs; median fovea circular, shallow, contour at profile rises from thoracic junction at an angle of 45°, slight indentation at fovea, slope across caput, which projects forwards; *clypeus* in height is equal to rather more than radius of a fore-lateral eye, yellowish hairs about eyes and *clypeus*, directed somewhat centrally.

Eyes on large black spots, anterior row curved, nearly half radius of lateral eye apart; dorsal eyes form with fore-laterals, which they equal in size, a quadrilateral figure, whose transverse side is greatest.

Legs clear yellow-amber, more or less distinct reddish-brown annulations, few fine hairs; first pair stoutest, nearly equals fourth in length, short curved spines on femoral joints; first pair genua nearly equal to tibiae in length, 6 spines on latter; metatarsi slightly exceed tarsi in length, on former 4 long spines exceeding article in length; tarsal claws—1st pair evenly curved, outer claw 1 strong tooth; inner claw about 16 close even teeth, 1 strong apical tooth; hairs of claw-tuft linear, pointed.

Palpi resemble legs in colour, fine light hairs, slender bristles.

Falces vertical, short, as broad as long, length equal to diameter of an anterior central eye; rugose, yellowish.

Maxilla rather broader than long, inferior angle obtuse, project over *labium*, which is oval, apex everted; clear yellow.

Sternum oval, yellowish, black coarse hairs.

Abdomen squarely truncated at base, which rises abruptly from petiolum, which is exposed, tapers towards spinners; creamy-yellow, two broad somewhat clouded marks of a darker hue extend along dorsal surface, ending near spinners in a series of short oblique bars; clothed with few fine hairs; on forepart of *epigyne* are two circular dark-margined fovea, centrally divided by a narrow keel, posterior projection cyathiform, about twice as long as broad, black margins.

Examples of immature males do not differ essentially from females.

Taken on shrubs and old logs.

Whangarei Harbour, *T. Brown*; Waiwera, *A.T.U.*

Attus sub-fuscus, sp. nov.

Female.—Ceph. th., long, 4; broad, 2.5. Abd., long, 4.5; broad, 2.5. Legs 4, 1, 2-3 = 8, 7, 6 mm.

Cephalothorax dark mahogany-brown, few fine yellowish hairs, widest at fore-part of caput, rounded posteriorly; median fovea large, circular, shallow; profile line rises at an angle of 45°, depressed at fovea, slopes across caput; *clypeus* narrow, less than space between central eyes, projecting hairs.

Eyes, anterior row sensibly curved, median pair nearly contiguous, laterals about half their radius from centrals, irides bright orange-red hairs; dorsal eyes are slightly smaller than anterior laterals, and the interval between them rather less.

First pair of *legs* stoutest, red-mahogany colour, hind pairs yellowish-tinge, faintly annulated; femora have short curved spines on superior surface, spines on tibiae and matatarsi; tarsal claws well curved, outer claw 1 strong tooth; inner 15 close even and 1 strong terminal tooth; claw-tuft linear hairs.

Palpi light-brown, digital joint dark, grey hairs, bristles.

Falces short, oval, nearly as broad as long, rugose, rich red-chestnut.

Maxillæ broader than long, inferior angle projects over *labium*, which is oval, everted; red-orange, pale apices, furnished with coarse black hairs.

Sternum oval, olive-brown, black and white hairs.

Abdomen oviform, dark-brown, clothed with fine pale-yellow, orange-tinted hairs, and coarse black hairs; lateral margins longitudinally wrinkled, hairs chiefly growing in depressed lines; large conical brown mark, margins pale on ventral surface; spinners long, orange-red; *epigyne* moderately prominent reddish-brown eminence, on the face of which there are two large circular depressions, divided by a keel more than their diameter in breadth.

Some examples have a broad light-brown lanceolate mark on median line, on fore-part are two angular brown marks, apices directed forwards, above spinners are a series of small oblique angular marks.

Taken on shrubs, *Cordylina*; Waiwera, A.T.U.

EXPLANATION OF PLATES.

PLATE VII.

- Fig. 1. *Epeira corrugatum*, sp. nov., male-female, twice natural size; *a* palpus; *b*, epigyne.
 Fig. 2. *Epeira tri-tuberculata*, sp. nov., female, twice natural size.
 Fig. 3. *Epeira orientalis*, sp. nov., male-female, one-third larger than natural size; *a*, palpus; *b*, epigyne.
 Fig. 4. *Epeira sub-compta*, sp. nov., female, twice natural size.

PLATE VIII.

- Fig. 1. *Epeira tri-tuberculata*, epigyne.
 Fig. 2. *Epeira verutum*, sp. nov.; var. *hastatum*, nov., twice natural size; *a*, epigyne.
 Fig. 3. *Nephila argentatum*, sp. nov., female, twice natural size; *a*, palpus of male.
 Fig. 4. *Thlaosoma pennum*, sp. nov., female, three times natural size.
 Fig. 5. *Ariamnes conifera*, sp. nov., female, eight times natural size.
 Fig. 6. *Ariamnes triangulatus*, sp. nov., female, eight times natural size.
 Fig. 7. *Linyphia blattifer*, sp. nov., palpus of male.
 Fig. 8. *Theridium melanozantha*, sp. nov., palpus of male.
 Fig. 9. *Hemiclea plautus*, sp. nov., palpus of male.
 Fig. 10. *Philodromus spheroides*, sp. nov., palpus of male.
 Fig. 11. *Theridium albo-gullatum*, sp. nov., palpus of male, viewed from beneath.

NOTE.—Chief errata, Vol. XVIII., p. 185, lines 15, 16 from the top, for "tarsi," read "tibiæ"; line 36, for "talica," read "labia"; p. 186, line 5 from below, for "tibiæ" read "labia"; p. 187, line 16 from below, for "free, and," read "free end" (throughout paper); p. 188, line 15 from below, for "pea-shaped," read "pear-shaped"; p. 202, line 13 from below, for "general," read "genual."