

New Ants from Australia.—II.

By W. C. CRAWLEY, B.A., F.E.S., F.R.M.S.

THE following paper is, in the main, a continuation of that published in the 'Annals and Magazine of Natural History' in April and July 1922. Unless otherwise stated, the types are in my collection.

Eusphinctus (Nothosphinctus) SEPTENTRIONALIS, sp. n.

♂. Length 5.2 mm.

Castaneous; head slightly darker, legs paler, mandibles and clypeus considerably darker; margination of head, pronotum, and epinotum darker than the mandibles; gastric segments with dark rims.

Body, including legs and antennæ, with a fine yellow pilosity, less abundant on thorax. Funiculi pubescent.

Head very slightly longer than broad, a fraction broader in front, the sides almost straight, contracting feebly in the middle, occiput widely and shallowly emarginate and subtruncate, the border marginate. Mandibles not very strongly bent at base, minutely and indistinctly denticulate, but in the centre of the terminal border is a longer and sharp tooth. Carinæ on cheeks fairly developed. Frontal carinæ seen from the front, widest anteriorly, then becoming almost parallel, nearly four times as long as wide behind; in front they encircle the antennal insertions, behind they are concavely truncate but not absolutely fused; at their extremity they join a finely impressed line which runs up the front. Eyes and ocelli absent. Scapes extend for almost two-

thirds of the distance from their bases to the occiput; they are not quite twice as broad at the apex as at the base. All funicular joints except the apical broader than long, 2 to 6 very gradually increasing in size, 7 to 10 more rapidly; the apical joint is rather longer than the preceding two taken together, but less than the preceding three.

Thorax twice as long as broad, feebly contracted at the sides between the meso- and epinotum, with an indication of a suture above. Pronotum a shade broader than epinotum. Declivity entirely marginate.

Petiole slightly broader than long, a shade broader behind, the sides convex; nearly three-quarters as broad as the postpetiole, which is broader than long and a little more than three-quarters as broad in front as behind, feebly convex above; the following segment shorter and broader, the next slightly shorter but as broad, the next as long but slightly narrower.

Mandibles shining, coarsely punctate only, no trace of striation. The whole of the upper surface of head, except the ocellar region, densely and coarsely punctate. There is a faint ground-striation in front, otherwise the surface is shining. The punctures are most abundant and largest on the anterior half. At the sides they become closely massed together and are connected by reticulations. On the occipital truncation the punctures are shallow. Each puncture on the upper surface of head has a microscopical central eminence bearing a hair.

Dorsum of thorax shining, sparsely punctate, the punctures smaller than those on the head. Down the centre there is a strip almost free of punctures except for a large one at the junction of meso- and epinotum. Sides with small sparse punctures and indications of a ground-reticulation. Declivity shining with a faint microscopical reticulation. Petiole punctured similarly to the head, also the postpetiole and following segments of gaster, the punctures becoming more superficial and smaller as the apex is approached. Legs and antennæ closely punctate, the funiculus very minutely so.

Darwin, N.T., Australia (*Hill*, no. 567).

Different from the described forms, but comes nearest to *froggatti*, For., from New South Wales, from which it principally differs in having no striation on the mandibles, a character which Wheeler uses in his valuable table on the genus (*Proc. Amer. Ac. Arts & Sci.* liii. 3, p. 224, 1918).

Myrmecia chasei, For., var. *ludlowi*, Craw.

♂ (not yet described). Length 14 mm.

Dark black-brown; the whole space between the posterior border of clypeus, the eyes and the anterior ocellus, the antennæ, the legs except the coxæ and the middle of the anterior femora, a

great part of the meso- and metasternum, a broad patch down the centre of the epinotum, the pedicel and apical segments of the gaster reddish yellow; terminal borders of mandibles brown.

A fine pale pilosity on head, thorax, and apical segments of gaster, and a feeble pubescence on the cheeks, clypeus, sides of thorax, and underside of gaster.

Mandibles triangular, with three large teeth, the apical long and curved, the basal broad and triangular, and the central similar but smaller. Eyes close to base of mandibles. Head rounded behind. Anterior border of clypeus shallowly and widely emarginate. Scape more than twice as long as first joint of funiculus, which is broader than long; second joint the longest of all.

Thorax of ordinary form, the angle between the faces of the epinotum very oblique. Stalk of petiole shorter than the node, the latter longer than wide, widest in middle and narrowest in front; a fine carina runs down the centre. In profile the node rises somewhat abruptly in front, but much less so than in the ♂; the top is slightly higher in front than behind and evenly curved. Beneath the stalk in front is a small pointed tooth. Postpetiole as long as wide, very narrow in front, and widest behind.

Mandibles smooth and shining along terminal border, the rest opaque and microscopically punctate. Front of head microscopically reticulate, rest of head coarsely rugose.

Thorax with similar coarse sculpture, the scutum being most coarsely rugose in the centre. Epinotum transversely rugose. First node rugose-punctate, the second microscopically reticulate with a few shallow punctures. Gaster microscopically reticulate.

Albany, W. Australia (*Clark*, no. 328).

NOTE.—In *Ann. & Mag. Nat. Hist.* ser. 9, ix. p. 429 (1922), under *Myrmecia lutea*, mention is made of the leaping powers of *Myrmecia*. This should refer only to the smaller species of the genus.

Myrmecia REGULARIS, sp. n.

♂ major. Length 14 mm. (without mandibles); length of mandibles 3.6 mm.

♂ minor. Length 10 mm.

Whole of head and thorax bright mahogany-red, legs duller, mandibles and scapes shaded with brown, gaster black.

Pilosity as in *forcicata*; pubescence almost nil.

Mandibles somewhat longer and slenderer and the outer borders less concave than in *forcicata*. The scape reaches slightly further beyond the occipital border. The occipital angles more rounded.

Whole thorax narrower, the pronotum narrower in front; the base of epinotum pointed in front and the angle between the two faces more pronounced. The stalk of the first node is longer and

the node more cubic in profile. There is a distinct longitudinal impression down the centre of pronotum and epinotum.

Whole body shining. Head very clearly and regularly striate, the striæ diverging slightly behind the eyes. There is no trace of rugosity. The striation is more clean-cut than in *sanguinea* and there is no ground-reticulation between the striæ as in that species. There is a microscopical reticulation between the eyes and frontal carinæ.

The whole striation of thorax is of this clean-cut description; on the pronotum it is transversely arched and on the rest transverse. The first node is superficially transversely striate and has a few indistinct punctures. The second node and gaster are microscopically reticulate.

Albany, W.A. (*Clark*, no. 322).

Sculpture very distinctive.

Myrmecia ATRISCAPA, sp. n.

♂. Length 14 mm. (without mandibles); length of mandibles 3.4 mm.

Colour like a dark *M. vindex*, head somewhat darker; mandibles castaneous with teeth dark brown; scapes, except the extremities, dark brown; legs slightly paler than thorax; gaster deep black except the two apical segments and a wide lozenge-shaped patch on the middle of the second segment (varying in distinctness in different specimens), which are castaneous.

Legs pilose, but less so than in *forficata*, scapes with only a faint pubescence. There is a short pilosity on the body and a thin grey pubescence most abundant on gaster.

Head broader than long, narrowing behind the eyes more than in *forficata*, the occipital angles not so rounded as in *regularis*, but more like a small *forficata*. Clypeus emarginate, but not impressed in centre as in *forficata*. Scapes pass the occiput by one-quarter of their length. Epinotum moderately long, not sharply pointed in front. First node from above oval, narrower in front; in profile rising abruptly in front (even more so than in *forficata*), where it is highest, thence sloping down to the rounded posterior border. The stalk is intermediate between *vindex* and *forficata*, but nearer the former; the length of the node is 1.4 that of the stalk, while in typical examples of *vindex* the proportion is 1:2 and in *forficata* 2:6. The stalk is a little longer than in race *simillima*, Sm., of *forficata*. Second node as broad as long, more than twice as wide behind as in front, the sides of the posterior third almost parallel.

Entire head longitudinally rugose, with the space between eyes and antennal sockets reticulate. Pronotum transversely striate, the striæ not clean-cut, but wavy and arched. Some specimens have one or two central longitudinal lines. Rest of thorax and

epinotum with similar but only transverse striation. Petiole circularly rugose-striate; postpetiole and first segment of gaster entirely smooth and shining, the remaining segments microscopically reticulate.

Albany, W.A. (*Clark*, no. 324).

According to the description this species comes near *analis*, For.

Rhytidoponera punctata, Sm., var. LEVIOR, nov.

♂. Somewhat darker than typical *punctata*. The eyes are not quite so close to the occiput, the occipital angles more rounded, and there is no sign of a carina, though the border is slightly depressed in the middle. (In *punctata* there is a feeble occipital carina.) The scape passes the occipital border by exactly one-third (in *punctata* by rather more). Otherwise similar in form.

Whole body, as in the type, densely and finely reticulate, except the back of the occiput, which is smoother and more shining than in the type. The head in addition has small punctures, much smaller, rounder, more shining, and further apart than in *punctata*.

On the thorax the punctures are even smaller and less abundant than on the head, and on the petiole the sculpture is less coarse than in the type. The superficial punctures on the gaster are also smaller and less abundant.

Rottneest, W.A. (*Mathews*, no. 250).

Very distinct in sculpture from *punctata*.

Rhytidoponera FOVEOLATA, sp. n.

♂. Length 8.5 mm.

Dark black-brown; mandibles, antennæ, and legs red-brown. A few scattered short hairs on the body, antennæ, and legs; pubescence nil.

Head (from base of mandibles to occipital border) a fraction broader than long, only slightly narrower in front than behind, broadest at eyes, which are at the hinder third of sides. Occipital border almost straight, with a shallow concavity in the centre, this concavity corresponding with the break in the slight occipital ridge. Both ridge and concavity are similar to those in *punctata*, but stronger. Sides of head feebly convex. Occipital shoulders moderately square. The scape passes the occipital border by more than one-third of its length. Mandibles minutely denticulate. Clypeus feebly convex, its anterior border depressed and forming a blunt angle. Frontal carinæ five-eighths as wide behind as in front.

Thorax robust, the pronotum (which is not shouldered) hardly broader than the epinotum. In profile there is a slight impression at both sutures. The pronotum has a small acute spine at the

lower angle. Petiole in profile not unlike that of *punctata*, but thinner, more concave in front, so that the apex projects forwards. From above it is narrower below and wider proportionately at the apex, the central impression deeper and narrower than in *punctata*. The node itself is broader than long. Beneath is a flat lamella ending anteriorly in a pointed tooth.

Whole insect shining. Mandibles and scapes striate. Whole of upper surface of head coarsely reticulate-punctate, the shining punctures more or less hexagonal and close together, leaving no space for ground-sculpture. Sides of head with a ground reticulation interspersed with small scattered circular punctures, mostly reticulate at the bottom. Back of head also reticulate with larger punctures. Sculpture of dorsum on thorax similar to that on upper surface of head, coarsest on the pronotum. Scapes longitudinally striate with a few punctures. Sides of thorax similar to the sides of head, but there are larger spaces bare of punctures; petiole similar, but the central impression closely and finely reticulate.

Postpetiole with a fine ground-reticulation, and, in addition, especially in front and at the sides, with broken fine striæ interspersed with shallow elongate and ill-defined punctures; apical border rugose. First segment of gaster similar, but the superimposed sculpture is finer and the striæ closer together, so that the segment appears to be longitudinally striate. On both the striæ have a tendency to encircle the segments.

Perth, West Australia (*J. Clark*, no. 284).

Rhytidoponera PUNCTIGERA, sp. n.

♂. Length 9.5 mm.

Dark reddish brown, gaster a shade less dark, funiculi, legs, and apex of gaster dark red.

Almost entirely glabrous, except the tarsi. There are a few short erect hairs on the inner surface of the apex of the tibiæ. Funiculi slightly pubescent.

Head very slightly longer than broad, almost as broad behind as in front. Sides as far as the eyes almost straight, the occipital angles rounded. Terminal border of mandibles two-fifths longer than the basal and minutely dentate. Clypeus broad, moderately convex, the anterior border forming a wide oblique angle. Frontal carinæ more than three-fifths as wide at their narrowest part as in front. Eyes rather small, prominent, behind the centre of the sides. Occiput without sign of crest, but the border is slightly more prominent at the sides than at the middle. The scapes reach rather more than one-third of their length beyond the occiput.

Pronotum from above almost square, the posterior angles more prominent. At the inferior angles is a small tooth, and at the sides an oblique impression. Pro-mesonotal suture deep; in profile there is an impression at this suture and between the meso- and

epinotum. Base of epinotum concave at its junction with the mesonotum, then feebly convex, sloping gradually to the declivity which is slightly flattened. Petiole from above oval, narrower in front, with a deep impressed line down the centre. In profile the apex is pointed, the anterior border concave and the posterior convex, so that it inclines forward. Beneath in front is a small tooth.

Postpetiole broader than long, in most specimens it has a faint impressed line down its basal third; the first segment of gaster slightly longer, the constriction between deep.

Shining; mandibles finely striate with indistinct scattered points; scapes longitudinally striate with scattered points; clypeus coarsely rugose-punctate. Vertex and the space between the frontal carinae longitudinally striate; sides, back, and underside of head with a fine ground-sculpture. In addition, the head is covered with circular shining punctures, widely spaced between the frontal carinae and on the vertex, closer together elsewhere.

The central anterior two-thirds of the pronotum are transversely striate, the rest of its upper surface and that of the mesonotum coarsely reticulate-punctate. The emargination between the meso- and epinotum very finely transversely striate. Declivity transversely striate, the rest of the dorsum of epinotum reticulate-punctate, but more superficially than on the rest of thorax. There is a fine ground-sculpture between the punctures on the whole of thorax. The sides are covered with ground-sculpture and have a few superficial punctures only. Upper surface of petiole finely transversely striate with a few punctures, anteriorly almost smooth, sides punctate.

Postpetiole covered with fine transverse arched striae with a few small superficial points which are more abundant on the apical half. First segment of gaster similar, but the striae finer and becoming concentric on the apical border. The remaining segments reticulate only. Femora circularly reticulate-striate, tibiae longitudinally striate with small superficial punctures.

Manjimup, W. Australia (*J. Clark*, no. 459).

Rhytidoponera convexa, Mayr, s.sp. *violacea*, For.

A variety with greener colouring, otherwise similar.
Beverley, W. Australia (*J. Clark*, no. 441).

Rhytidoponera convexa, Mayr, s.sp. *violacea*, For.,
var. *OPACIOR*, NOV.

♂. Length 6 mm.

Dark ferruginous; gaster with a faint metallic-blue tint, mandibles dark castaneous, apical joints of funiculus castaneous.

Scapes and legs less pilose than in the type.

The node of the petiole in profile is thinner, especially at the top, and the eyes slightly less prominent. The sculpture differs from that of *convexa*, s.sp. *violacea* and var. *subumbrata*, as follows:—the punctures are decidedly less shining, giving the whole insect a duller appearance. On the head the punctures are smaller, shallower, and further apart, showing more striation and reticulation; similarly on dorsum of thorax. On the pronotum there is a larger space in front which is transversely striate and not punctate, and on the epinotum the transverse striæ are more distinct and not broken by punctures; a good deal of the meso- and epinotum is transversely striate. Striation on postpetiole and gaster finer.

Jigalong, N.W. Australia (*J. Hickmer*, no. 480).

Appears to be somewhat like the s.sp. *spatiata*, For., from Queensland, judging from the description.

Rhytidoponera CERASTES, sp. n. (Fig. 1.)

♂. Length 9.5–10.5 mm. Head (base of mandibles to end of horns) 2.6 mm., widest point (at cheeks) 2.3 mm.

Head and thorax dark red-brown, gaster, scapes, and legs darker, funiculi and tarsi palest, the former becoming lighter towards the apex.

Head and thorax almost glabrous, except for long hairs on clypeus and underneath head, and on the apical segments of gaster. Scapes with a few scattered and very short hairs; funiculi pubescent. Underside of tibiæ with rows of stiff bristles.

Mandibles large, the terminal border one-third longer than the basal, and entirely without teeth (in *cornuta* it is dentate), though slightly irregular, and in some specimens with an indication of a tooth lying under the apical. Clypeus flat with a narrow central stria. Frontal carinæ narrow rapidly behind where they are one-half as wide as in front. Eyes placed behind the middle of sides of head. Head (including the horns) longer than broad, broadest at cheeks, the sides narrowing gradually to the base of the horns where it is barely two-thirds as broad as in front. Seen from the front, the horns are triangular, as long as they are wide at base, the point slightly turned outwards. They are longer than in *cornuta*, Em., and the space between them is evenly excavate and deeper. In profile they are in the form of a pointed cone, the apex not turned outwards as in *cornuta*; there is an impression marking the line of the base of each horn.

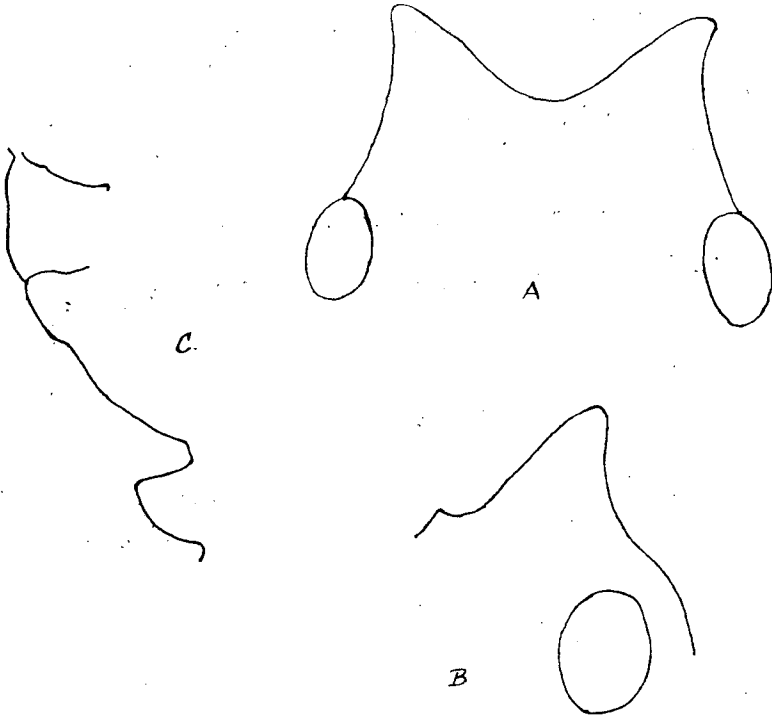
Thorax in profile impressed at the pro-mesonotal suture and widely and shallowly emarginate at the junction of the meso- and epinotum (entirely unbroken in *cornuta*). Pronotum wider behind than in front; laterally there is a wide and oblique impression. The inferior angles end in a small tooth. Epinotum evenly rounded, the declivity small and slightly flattened. Petiole in

profile higher in front, where it is almost straight, the top evenly sloping. From above it is barely longer than wide, and twice as wide behind as in front. Down the centre runs a deep narrow impression. Beneath anteriorly is a small spine perpendicular to the segment.

Postpetiole and first segment of gaster equal in length.

Shining; mandibles finely striate with small scattered points.

Fig. 1.



Rhytidoponera cerastes, Craw.

A, front view of horns; B, profile; C, dorsum of thorax.

Upper surface of head, including frontal carinæ and clypeus, coarsely reticulate-punctate. The impressions at the bases of the horns are finely reticulate only, the space between them smooth with a few shallow punctures; the back of the horns and the occipital border smooth and shining. Sides of head with large shallow punctures widely disposed, the spaces between finely reticulate. Scapes longitudinally striate.

Entire thorax with a fine ground-reticulation and in addition covered with circular punctures connected by coarse reticulations. Down the centre of the pronotum is a narrow strip finely and transversely striate only. The lateral impressions of the pronotum are extremely finely reticulate only. The petiole is coarsely rugose-punctate in front and on the sides, but behind and along the central impression transversely striate. Meso-epinotal emargination finely transversely striate, the declivity coarsely transversely striate. Postpetiole and first segment of gaster very finely transversely striate with scattered points, the remaining segments finely reticulate only.

Derby, N.W. Australia (*J. Campbell*, no. 397).

Distinct from *cornuta*, Em., and its subspecies by the shape of the horns. *R. cornuta* also has the thorax very closely and coarsely punctate, and there is no ground-sculpture. (Compared with a co-type of *cornuta* kindly lent me by the author.)

Rhytidoponera cerastes, var. BREVIOR, NOV.

♂. Length 10.6 mm.

Red-brown, legs and apices of funiculi somewhat paler.

Larger than the preceding in most specimens, and lighter in colour. Differs also as follows:—mandibles with minute teeth; anterior border of clypeus more broadly rounded; head as broad as long, not narrowing so much at occiput; frontal carinæ wider behind; scapes slightly longer, passing the occipital border by one-half their length. Horns like those of *cornuta*, shorter than in *cerastes*, the space between not evenly excavate, but widely angular, and the points turn more outwards, but in profile the points do not curve forwards as in *cornuta*.

Petiole higher and thinner than in *cerastes*, descending rapidly behind, and concave in front, so as to appear to lean forward; from above it is longer and narrower. Dorsum of thorax similar. The constriction between postpetiole and gaster is more pronounced. The sculpture is coarser, the head and thorax being entirely reticulate-punctate, the punctures not well-defined and circular as in the type; there is no ground-sculpture. The space between the horns has irregular transverse ridges and punctures. The declivity of the epinotum, which is less defined, is transversely rugose.

The postpetiole is finely concentrically striate with scattered points, the first segment of gaster has longitudinal striæ curving inwards at the apex of the segment and scattered points. The legs are covered with short stiff erect hairs and are more coarsely sculptured.

Derby, N.W. Australia (*J. Campbell*, no. 396).

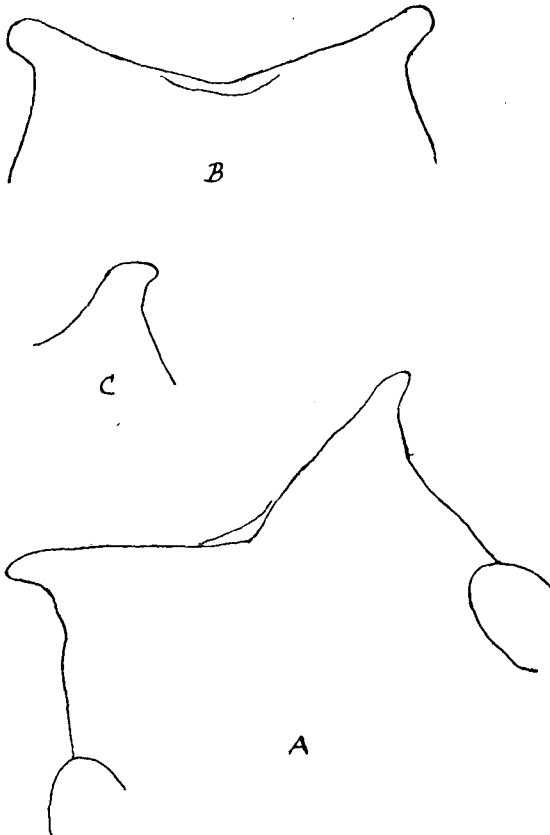
This var. comes much nearer *cornuta*, but I have considered it a var. of *cerastes*, as in common with that species it has the dorsum of the thorax emarginate at the place of the two sutures, whereas

the dorsum of *cornuta* is entirely without any incision. Fig. 2 is from a co-type of *cornuta*.

♂. Length 9.2 mm.

Russet-brown; petiole, gaster, coxæ, trochanters, and femora, lighter; apical segments of gaster edged with golden-yellow. Wings

Fig. 2.



Rhytidoponera cornuta, Em., co-type ♀.

A, front view; B, back view; C, profile of horns.

yellowish brown, iridescent, the nervures brown. Abundantly provided with fine erect yellowish pilosity, including the legs and antennæ. Pubescence almost nil, except on funiculi, tibiæ, and tarsi.

Mandibles as in ♂, but smaller, minutely denticulate. Clypeus convex in centre, the anterior border depressed. Frontal carinæ short, almost parallel. Eyes prominent, placed in centre of the sides, and equal in length to one-half the side of the head. Head as long as broad, as broad in front as behind, the occiput rounded. Antennæ 13-jointed, the scape equals the first and second joints together, all joints very long, diminishing in length to the apical.

Pronotum high and arched, the Mayrian furrows visible but faint, the scutellum very prominent, longitudinally incised. Epinotum evenly convex, the declivity slightly flattened.

Petiole from above nearly twice as long as broad, slightly broader behind, in front there is a small projection on each side. In profile it rises gradually to its highest point, which is one-third from the posterior border, but it is only about one-sixth higher than in front.

Postpetiole narrow in front, longer and narrower than the first segment of gaster, which is broader than long and only slightly broader behind. Legs and antennæ long and slender.

Shining; mandibles finely striate with a few minute punctures; scapes superficially striate. Whole of head and thorax closely and coarsely rugose-punctate, more densely than in the ♂; the declivity of epinotum transversely rugose. Legs almost entirely smooth and shining. Upper surface of petiole transversely ridged, the sides reticulate-rugose. Postpetiole transversely striate above, the apical border and sides reticulate; the first two segments of gaster finely and evenly longitudinally striate.

1 ♂. Locality as for the ♀.

√√ *Rhytidoponera PRONOTALIS*, sp. n.

♀. Length 8.5 to 9 mm.

Dark brown; mandibles, funiculi, apices of scapes, legs, and extremity of gaster dark red.

Scapes and tibiæ with fine short erect pilosity, the rest glabrous.

Head as broad as long, slightly broader in front than behind, the sides feebly convex. Occiput almost straight, slightly depressed in the centre. Inferior angles ending in a sharp projection. Mandibles finely dentate, the terminal border one-fifth longer than the basal. The anterior border of clypeus evenly convex, depressed. Frontal carinæ three-fifths as wide behind as in front. Eyes placed just behind the middle of sides.

Pronotum, seen from above, wider behind where the lateral angles are prominent; in profile these angles are seen more distinctly. The inferior angles of pronotum end in small teeth. Dorsum of thorax impressed at both sutures. Epinotum feebly convex, the declivity small, flattened. Petiole from above longitudinally oval, with a faint impression down the centre; in profile the node is thick, parallel-sided, the top slightly oblique, forming

an acute angle with the anterior border and a rounded one with the posterior. Postpetiole broader than long, with a faint short impression in front; first segment of gaster larger, the constriction moderately deep.

Semi-opaque. Mandibles finely striate with superficial points. Whole of upper surface of head coarsely reticulate-punctate, the punctures shining. Sides and under surface covered with a fine longitudinal striation interspersed with scattered punctures, smaller than those on head. The back of the occiput has a superficial transverse striation with scattered punctures. Scapes longitudinally striate.

Pronotum covered with a fine ground striation, mostly transverse. In addition the segment is punctured, the punctures being smaller, rounder, and less shining than on the head, sparse in front and in centre, more abundant on the posterior angles. Mesonotum with similar striation and scattered punctures; base of epinotum similar but the punctures more abundant. The junction of the meso- and epinotum has transverse ground sculpture only. Declivity transversely striate. Node of petiole from above with a transverse ground striation and a few superficial punctures in front, the back smooth and shining, the sides longitudinally striate with punctures.

Postpetiole with fine transverse slightly arched striæ, more pronounced at base, and some small superficial points; first segment of gaster similarly striated, but more finely. Femora with faint circular striæ, tibiæ with traces of longitudinal striation and superficial punctures.

Lismore, N.S. Wales (*C. Deuquet*, no. 422).

The petiole is not unlike that of *punctata*, Sm., but less thick and more rounded behind.

Rhytidoponera CASTANEA, sp. n.

♂. Length 7.5-8 mm.

Head, thorax, petiole, and scapes red-brown, funiculi lighter, especially the apical joints; rest of body and legs bright castaneous red.

A few hairs on the upper and under surfaces of head and under surface of pronotum, and on the apical segments of gaster, one or two on the node, scapes with a few short ones, the funiculi pubescent; rest, including legs, glabrous.

Head about as broad as long, slightly broader in front, the sides feebly convex. Occiput with a small transverse crest depressed in centre, causing the posterior angles to be prominent and incline forwards. Mandibles minutely dentate, the basal border about four-fifths as long as the terminal. Anterior border of clypeus forms a wide angle, the margin is impressed. Frontal carinae less than three-fifths as wide behind as in front. Eyes prominent, placed well behind the middle of sides. Scapes pass the occiput by one-third of their length.

Pronotum broader than long, the sides fairly straight; there are no prominent angles. The inferior angles bear a small tooth. The dorsum of pronotum and mesonotum form an even curve broken by the suture; there is also a slight concavity at the junction of meso- and epinotum; base of latter feebly convex, the declivity flattened.

Petiole from above almost twice as wide as long, in profile it is narrower above, the top flat, the sides formed by nearly straight lines, the anterior border becoming concave at the stalk. Beneath in front is the usual tooth. Postpetiole rather narrow in front, broader than long, slightly overhanging in front, the following segments as broad and somewhat shorter.

Mandibles finely striate with scattered superficial points. Whole of upper surface of head coarsely reticulate-punctate and shining, though the bottoms of the punctures are superficially reticulate; the sides and under surface with superficial reticulation having a longitudinal direction, interspersed with shallow scattered punctures. Head behind occipital crest shining, superficially punctate. Scapes longitudinally striate.

Dorsum of thorax similar to head, but the ground sculpture more evident; pronotum with slight transverse striation in front. Similar striation shows between the meso- and epinotum. Declivity coarsely transversely striate. Sides of thorax similar to sides of head. Top of node with concentric striæ and superficial punctures; the striæ encircle the whole node, but at the sides they are broken by punctures. Postpetiole and the following two segments with fine arched striæ, giving a silky appearance. On the gastric segments the striæ become more transverse. Along the apical borders of the postpetiole and the following segment the striæ are transverse and coarser. Coxæ reticulate-striate, femora circularly and tibiæ longitudinally striate with scattered points.

Derby, N.S.W. (*J. Campbell*, no. 398).

One of the workers carrying a dead bee.

Rhytidoponera (Chalcoponera) aspera, Rog., var. SCABRIOR, nov. = *Cholytra*

Em.

♂. Length 6 mm.

Rather smaller than the type. Colour similar, but the green of the thorax and petiole has more purple mingled with it.

Differs principally in the sculpture of the postpetiole and first segment of gaster. In *aspera* the postpetiole is covered with arched striæ interspersed with shallow punctures, the space enclosed by the narrowed arches in the centre of the apical third being filled with fine vermicular reticulation; the following segment is smooth and shining in the centre, the sides with a slightly curved longitudinal striation, finer than on the postpetiole. In the variety the dorsum of the postpetiole is coarsely reticulate-punctate, with traces of ridges around the basal border, and the vermicular patch

is much more extensive. The punctures are much larger, more abundant, and more clearly defined than in the type. In both the base of the segment beneath is striate. The following segment is entirely covered with a dense fine striation, finer in the type; the lines encircle the base, form a nucleus a third of the distance beyond, and from this point they run fanwise to the apical border.

The punctuation of the postpetiole is only slightly less coarse than on the thorax.

Lismore, N.S.W. (*C. Deuquet*, no. 333).

Sculptured very distinct when compared with the type.

♂ *Rhytidoponera (Chalcoponera) metallica*, Sm.,
var. *inornata*, Craw.

♂. (Not described.) Length 5.5 mm.

Smaller and slenderer than the type. Entirely black except for the ferruginous tarsi and apical segments of gaster. Scape somewhat thicker. Sculpture of postpetiole and first segment of gaster much coarser, consisting of irregular striæ encircling the base of the postpetiole, together with a few elongate punctures. The following segment is longitudinally reticulate-punctate with small isolated punctures here and there. Both segments shining. Otherwise like the ♂ of *metallica*.

Mundaring, W. Australia (*Clark*, no. 299).

Rhytidoponera (Chalcoponera) metallica, Sm.,
var. *varians*, Craw.

♂. (Not described.) Length 5.2 mm.

Slightly smaller than the above. The funicular joints are rather shorter, the sculpture on head and thorax is denser, the punctures less defined, on the postpetiole the sculpture is coarser, irregularly transversely rugose; the first segment of gaster transversely roughened; otherwise like *inornata*. The pilosity on the legs is less dense.

Manjimup, W. Australia (*J. Clark*, no. 461).

Still more distinct from *metallica*, i. sp., than the var. *inornata*, especially in the sculpture on the postpetiole and following segment.

Pondomyrma nuda, Craw.

♀. (Not described.) Length 10 mm.

Colour similar to that of the ♂, but paler; head, pronotum, petiole, and sides of thorax castaneous; mandibles, antennæ, legs, and rest of dorsum of thorax dark brown; gaster nearly black. Wings tinted with yellow, nervures brown.

Pilosity rather more abundant and finer.

Head large, 2.2 broad by 2.5 mm. long, as broad in front as behind, sides almost parallel, slightly contracted in the middle at the eyes. Occipital angles rounded, the border concave. The surface of the head is excavate between the end of the frontal carinæ and the eyes, thus forming more of a scrobe than in the ♂.

Thorax considerably narrower than the head, the anterior angles less acutely dentate than in the ♂. Petiole somewhat longer in proportion, and no tooth, only an angle, at the top.

Shining; sculpture of head similar but coarser than in the ♂. Pronotum transversely reticulate-rugose, more reticulate at the angles. Scutum longitudinally striate, postscutellum shining, superficially longitudinally striate with a few punctures. Base of epinotum transversely striate, declivity smooth and shining. Pleuræ longitudinally striate. Petiole smoother, otherwise as in the ♂. Postpetiole and gaster similar.

Vasse River, West Australia (*J. Clark*, no. 350).

Podomyrma PARVA, sp. n. = *P. elongata* For.

♂. Length 4 mm.

Dull reddish-brown; head darker than thorax, gaster darker than head, except the extreme base; mandibles, antennæ, cheeks, and tarsi castaneous.

Body, including legs and antennæ, covered with a moderately long abundant pilosity.

Head slightly longer than broad, somewhat narrower at the occipital angles, which are rounded. Occipital border concave in centre. Eyes somewhat in front of middle of sides of head, which are feebly convex. Scapes reach two-thirds of the distance from their base to the occiput. A broad and shallow scrobe extends to the end of the scapes. Frontal carinæ short, continued by the edge of the scrobe. Mandibles with five teeth, the three apical ones large and acute, the others indistinct. Clypeus flat, with a central ridge, the anterior border sinuate, excavate in centre.

Joints 2 to 4 of funiculus about as wide as long, the others increasing in size to the club, of which the apical joint is rather longer than the other two together.

Pronotum two-thirds as wide behind as in front, the anterior angles rounded, no signs of teeth. Mesonotum has feeble lateral ridges.

Base of epinotum longer than the declivity, slightly concave in centre, the angle between the two faces rounded. Declivity convex and feebly marginate. Petiole, seen from above, three-fifths as wide as long, slightly wider behind, the sides feebly convex. In profile the petiole is rounded along the top, descending more rapidly in front; beneath anteriorly is a tooth. Postpetiole, seen from above, almost globular, in profile it is rounded above and almost flat beneath. Gaster broadly oval.

Moderately shining. Mandibles superficially striate with minute

points. Clypeus shining; besides the central ridge there is one on each side, and sometimes a smaller incomplete one beyond.

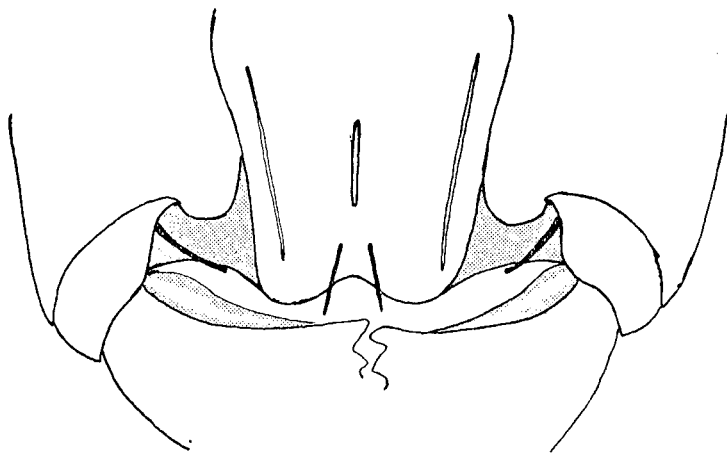
Head between antennal scrobes regularly and widely striate, the striæ become more superficial and wider apart as the vertex is reached, where also there are a few scattered punctures. Between the striæ the surface is slightly roughened, but shining. Cheeks, sides, and underneath of head longitudinally striate, but not so regularly, the lines curving and having a reticular tendency. Scrobe finely reticulate only. Dorsum of pro-mesonotum striate similarly to the head, but less strongly, and the mesonotum has in addition a reticulate ground sculpture. Base of epinotum coarsely rugose, the declivity reticulate. Sides of thorax longitudinally striate, but mesopleuræ are almost entirely reticulate only. Pedicel with a dense ground reticulate sculpture; the first node has also a few longitudinal ridges and the second a few elongate punctures. Extreme base of gaster longitudinally striate, the rest almost entirely smooth and shining.

West Australia (*J. Clark*, no. 210).

Pseudopodomyrma clarki, *Craw.* (*Ent. Rec.*, Mar. 1925).
(Fig. 3.)

Fig. 3 shows the conformation of the clypeus.

FIG. 3.



Pseudopodomyrma clarki. Clypeus from in front.

Monomorium MICRON, sp. n.

♂. Length 1.8 mm.

Thorax, legs, and funiculus dirty yellow, scapes darker, head mahogany-brown, paler in front, petiole like the head, gaster

darker. There are a few fine yellowish hairs on body; scapes with abundant erect hairs, tibiae with a few semi-erect ones.

Mandibles narrow, with three teeth. Anterior border of clypeus straight, without teeth; the broad central portion is convex lengthwise and feebly concave from side to side, smooth and shining, bounded on each side by a blunt margin. Frontal carinae parallel, short. Head barely longer than broad, broadest in front, the sides feebly convex, converging slightly behind eyes. Occipital border widely concave. Eyes in front of middle of sides. Scapes fail to reach the occipital border by their width. There is a small oval impression on the front.

Pronotum twice as wide in front. In profile the pro-mesonotum is high, evenly convex, the meso-epinotal suture deeply and widely excavate, the base descending obliquely from the end of the suture and forming an obtuse angle with the declivity which is three-fourths as long, flat, and feebly marginate. From above the thorax is constricted at the suture, and the base of the epinotum transversely convex. Eyes well-developed.

Nodes of pedicel seen from above broad, of equal width, the second longer. In profile the first is high and thick, straight in front, the upper third behind rounded, at base it is slightly thicker and nearly twice as thick as the stalk is long; second not quite so high, thicker and evenly rounded above. The petiole beneath is feebly convex. Viewed from behind the first node is bluntly conical. Basal border of gaster transverse.

Shining; mandibles and clypeus smooth. There are a few indications of striæ on the cheeks and in the antennal sockets, also along the frontal carinae; otherwise head entirely smooth and shining. Promesonotum, pedicel, and gaster smooth and shining, epinotum densely reticulate.

♀. Length 4.4 mm.

Front of head, except frontal carinae and a patch on the front, and gaster mahogany-brown, mandibles, antennae, legs, frontal carinae and front, thorax and pedicel castaneous. More pilose than the ♂. Deälate.

Head short, broader than long, broadest at eyes, the sides feebly convex, occipital border straight, the angles rounded. Eyes very slightly behind the centre of sides. Mandibles and clypeus as in the ♂, but the former have a minute fourth tooth beyond the first three. Scapes almost reach the occiput.

Thorax long, narrower than the head. Base and declivity of epinotum in profile form a single surface descending obliquely from the suture; the base is longer than the declivity, and concave and strongly marginate. Pedicel as in ♂, but first node narrower above and the stalk shorter, the second less rounded.

Gaster large, broader than head.

Sculpture as in ♂, but the head and thorax have minute piligerous points, and the pedicel is microscopically reticulate.

West Australia (*J. Clark*, no. 211).

Iridomyrmex rostrinotus, For.

♂. I have not seen the co-types of Forel's species, but these specimens agree with his description, except as follows:—Frontal groove distinct (indistinct according to the description); scapes do not quite reach the occiput; the base of the epinotum is only three-fourths as long as the mesonotum, whereas Forel says it is about equal; the scale is transversely truncate at the top. Finally, the colour is paler, none of the specimens approaching black. Allowing, however, for inaccuracies in descriptions, it is quite likely these are true *rostrinotus*.

Rochampton, N.W. Australia (*Le Souef*, no. 215).

Camponotus (Myrmogonia) tumidus, Craw.

♂. (Not described.) Length 8–8.5 mm.

Black; funiculi, articulations of legs, and apical joints of tarsi castaneous yellow, borders of gastric segments testaceous. The basal three or four joints of the funiculus are brownish. Wings yellow-brown, nervures brown.

Pilosity scanty and short; there are a few stiff hairs under the tibiae.

Mandibles small, edentate, the inner border incised. Clypeus arched, the anterior border rounded. Antennae long, the scapes extending more than half their length beyond the occipital border. Head slightly broader than long, broadest behind eyes, the sides feebly convex, the occipital border widely concave. Eyes of moderate size, placed behind the middle of sides.

Thorax massive, high and arched. Epinotum broad and convex. Node broad and thin, widely emarginate at top.

Stipites long and narrow, volsellae broad and short. Sagittae as long as stipites.

Head matt, finely reticulate. Thorax more shining, more finely reticulate, gaster similar. There are a few irregular punctures on the scutum in front.

♀. (Not described.) Length 12.5 mm.

Dark brown, almost black; scapes dark ferruginous, coxæ, trochanters, and femora pale castaneous, apical joints of tarsi ferruginous. Wings long, coloured as in the ♂. There are a few hairs on head, thorax, and gaster, and the tibiae have a few bristles beneath.

Head thick, broader than long, broadest behind the eyes, the sides very feebly convex, the occipital border feebly concave. Eyes flat, behind the middle. Scapes extend one-third of their length beyond the occiput. Clypeus and mandibles as in the ♂.

Thorax hardly broader than head, upper surface of scutum flat, scutellum not prominent. Scale thin, the top rounded.

Puncturation on head coarser than in the ♂. Otherwise similar. West Australia (*J. Clark*, no. 292).

Camponotus (Myrmophyma) ephippium, Sm., s.sp. *narses*, For.

♂. (Not described.) Length 11 mm. (♀ 6-8.5 mm.).

Black; head, except a brown triangular patch, with its apex at the ocelli, deep red; mandibles darker red, legs brown, the posterior femora sometimes red. Borders of gastric segments testaceous.

The grey pilosity and pubescence are similar to that of the ♀, but the pilosity is shorter. Tibiæ and scapes without erect hairs.

Head very thick and massive, broader than the thorax, the vertex much swollen; the head is as broad as long, broadest at occiput, where the angles are only slightly rounded, almost square, and prominent in profile; the sides almost straight as far as the lower cheeks, where they converge; occipital border widely and shallowly concave. There is a slight depression between the bulge of the cheeks and the frontal carinæ; the latter are nearly twice as wide apart behind as in front. Mandibles thick, with six teeth. Frontal groove distinct, reaching to a pit representing the anterior ocellus. Clypeus flatter than in the ♀, feebly carinate, the anterior border slightly concave in the centre, and crenulate as in the ♀. The scapes extend beyond the occiput by as much as their width.

Pronotum very broad, twice as broad as long, the mesonotum considerably narrower, convex in both directions; meso-epinotal suture distinct but faint, the base concave as in the ♀, but shorter in proportion; the declivity half as long as base, more vertical than in the ♀, and slightly concave.

Petiole in the form of a scale, not a node as in the ♀, broad, bluntly angular at top; in profile the top is bluntly pointed. Gaster nearly as broad as head.

Moderately shining. Mandibles coarsely punctate-striate. Whole of upper surface of head covered with somewhat elongate punctures, with a fine dense ground reticulation. The sculpture becomes feebler and the punctures more scattered at the sides and at the occiput, where the surface is shining. Pro- and mesonotum with a fine ground reticulation and a few punctures, epinotum more densely reticulate and matt. Gaster more abundantly provided with small punctures and microscopically reticulate. Legs with scattered punctures.

Armadale, W. Australia (*Clark*, nos. 222, 225, 268, 269).

Camponotus (Dinomyrmex) RUFUS, sp. n.

♂. Length 15-17 mm.

Rufous, gaster black. Head darker red than the thorax, and the legs more inclined to yellow than the thorax. Mandibles and clypeus somewhat fuscous. Ocellar region fuscous.

Body with a few short stiff hairs. Scapes without erect hairs, tibiæ with a few bristles on their under surface. On the mandibles and anterior border of clypeus are short golden hairs.

Head broader than long (5.2 by 4.4 mm.), broadest at level of eyes, the sides slightly convex, the occipital border widely concave,

the angles abruptly rounded. Mandibles very thick and massive, with 7-8 teeth. Central portion of clypeus rectangular, broader than in *subnitidus*, the anterior border convex and irregularly crenulate, the posterior border incised in centre. It is impressed at the anterior third, as in *subnitidus*, but there is no sign of a carina. Cheeks swollen. Frontal carinæ three-eighths wider behind than in front. Eyes at the posterior third of head, nearer the centre line than the lateral border, on a level with the posterior end of frontal carinæ; the distance between the frontal carinæ is greater than between the eye and the carinæ. Ocelli represented by three small pits. The scapes extend nearly one-third of their length beyond the occipital border. Antennæ thin, joints of funiculus long and thin, the first four approximately equal, the rest diminishing gradually to the apical which is less than twice as long as the preceding one.

Thorax slightly incised at meso-epinotal suture. Base of epinotum very feebly convex, and nearly twice as long as the declivity. Tibiæ grooved. Node from above twice as broad as long, the apex with a small crescent-shaped emargination. In profile it is thick at base, converging rapidly from the upper third to form an acute edge. The node is less thick than in *subnitidus*.

Subopaque. Whole head covered with a dense ground reticulation, densest on mandibles and anterior portion of head. In addition, the mandibles have large irregular and shallow punctures. The cheeks and space between frontal carinæ have abundant very small circular punctures which diminish in distinctness as the occiput is approached. Scapes minutely punctate.

Thorax with a microscopical ground reticulation and here and there very small punctures. Legs punctate. Node reticulate. Gaster microscopically transversely reticulate.

♂. Length 12 mm.

Colour as in the ♀, but legs yellower.

Head broader than in *subnitidus*, and contracted more rapidly behind the eyes, the sides becoming concave before reaching the margination of the neck. Mandibles narrow, with three large teeth in a row at apex, and two others further behind with smaller teeth between them. The head is broadest at the base of the mandibles, and the sides as far as the eyes not quite straight. Eyes large, placed opposite the ends of the frontal carinæ. Clypeus bluntly carinate, the anterior border of the produced portion only slightly convex. Scapes extend for more than half their length beyond the occipital border, which is concave.

Scale in profile much shorter and higher than in *subnitidus*; the downward sloping portion behind the apex is twice as long as the portion in front; apex truncate. In *subnitidus* the two portions are approximately equal.

Mandibles punctate. Cheeks with small faint punctures, which disappear towards the back of the head. Frontal carinæ and clypeus with small punctures.

There are a few punctures in front of pronotum and on the node.

The head and thorax are microscopically reticulate, and the gaster also, transversely. Otherwise like the \mathcal{U} .

♀. Length 18 mm.

Deälated. Colour as in \mathcal{U} , but darker.

Mandibles with six distinct teeth and four or five indistinct ones behind.

Head as in \mathcal{U} , but less massive and the vertex more arched. Ocelli distinct. Eyes larger and more prominent. The scapes extend for half their length beyond the occipital border.

Anterior border of clypeus almost straight, not crenulate.

Thorax broader than head. Epinotum evenly rounded, convex in both directions. Scale seen from in front wider, and the emargination at top wider. In profile it is similar to that of the \mathcal{U} . Gaster broader than thorax.

Sculpture on head and thorax similar. Otherwise like the \mathcal{U} .

West Australia (*J. Clark*, no. 202). Differs from *subnitidus* from Queensland as indicated above, and in its brighter colour.