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## On Some New Genera and Species of Hymenoptera

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12th, and the remainder on the 13th. The larvæ were very long and slender, and must have rested in the egg coiled like a wire-spring. I had no opportunity of making a description of them, but noticed the very curious thick club-shaped hairs with which many of the tubercles were furnished. Having no marsh-bedstraw (*Galium palustre*) at hand, I fed the larvæ on knotgrass. This, strange to say, they preferred quite fresh, in contrast to most other *Acidalia* larvæ, which seem to have a liking for rather dry food. I suggest that one of the natural food-plants of this species is the above mentioned *Galium*. None of this brood were reared, as I believe it was kept in too dry a condition.

Corney House, Chiswick, Middlesex: March 5th, 1904.

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ON SOME NEW GENERA AND SPECIES OF  
HYMENOPTERA.

By P. CAMERON.

CHALCIDIDÆ.

OXYCORYHPUS, gen. nov.

Antennæ longish, the scape long; on the lower (almost) half it becomes gradually dilated, the end of the dilated part abrupt, forming a large sharply pointed tooth; the apical part becomes gradually, but not much, dilated; the pedicle longer than broad; the third joint distinctly longer than the fourth. Malar space as long as the eyes. Frontal depression narrow and widely distant from the ocelli. Temples very narrow, almost obsolete on the outer side. Mandibles bidentate. Scutellum large, as long as the mesonotum, narrowed towards the apex, which is narrowed, slightly incised in the centre, and projecting over the metanotum, which is irregularly reticulated, and has two stout keels in the centre, forming a large area, extending from the base to the apex. Abdomen short, the basal segment nearly as long as the other segments united, sessile. Hind femora swollen, indistinctly toothed. Submarginal vein long and narrow; the subcostal vein long and narrow; the costa and radius short, thick, and forming almost one vein. The prothorax is nearly as long as the mesonotum; the sides of the metapleuræ near the apex project; the base of the middle femora is broadly and much narrowed, compared with the apex, which has spurs. The antennæ are eleven-jointed; the last joint is as long as the preceding. On the base of the hinder femora, on the under side, is a broad rounded projection. The apical two joints of the antennæ are closely united; the pedicle is bare, narrowed.

The peculiar structure of the antennal scape makes the male of this genus easily recognized. Comes near to *Stomatoceras*, Kirby.

ENTOM.—APRIL, 1904.

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1904

## OXYCORYHPUS PILOSELLUS, sp. nov.

Black, densely covered with silvery pubescence; the hinder femora, the greater part of the four anterior and their tibiae, and the middle tarsi rufous; the wings hyaline, the nervures fuscous, blackish at the apex. ♂. Length,  $2\frac{1}{2}$  mm.

*Hab.* Deesa (*Nurse*).

Antennae nearly as long as the head and thorax united, the scape bare and shining, the flagellum opaque. Vertex and sides of front closely and distinctly punctured; the frontal depression smooth; the vertex only sparsely pilose; the rest of the head covered with long silvery hair, which hides the surface. Pro-, mesonotum, and scutellum closely and rather strongly punctured, the scutellum more strongly than the mesonotum. Metanotum irregularly reticulated; the base with a central area of equal width, about three times longer than broad. Pleurae rugose; the apex of the meso- closely and distinctly striated. The second dorsal segment of the abdomen at the sides and the rest all over rather strongly punctured. Legs thickly covered with white pubescence.

## CÆLOCHALCIS, gen. nov.

Antennae situated half-way between the lower part of the eyes and the mouth. Front deeply and widely excavated to the front ocellus, the sides of the depression sharply keeled, and to a less extent above. Lower outer orbits sharply margined. Antennal scape short, not reaching to the ocelli; of equal width throughout; the pedicle not longer than broad, pilose; the other joints long; the last longer than the penultimate, which is shorter than the preceding. Parapsidal furrows distinct, curved. Scutellum obtusely bidentate at the apex. Metanotum reticulated. Posterior femora not greatly dilated; not so thick as the coxae; below without teeth; the middle coxae spined. Abdomen sessile. Subcostal vein long, reaching close to the middle of the wing; the costal short, about four times longer than wide, the radius very short, broader than long. Mandibles shortly bidentate. The abdomen is shorter than the thorax; its basal segment is as long as the other segments united; the sides of the median segment are not spined or toothed; in its centre are two stout longitudinal keels; the hinder femora are stoutly bordered on the apical half beneath. The antennae are shorter than the body; the scape of the antennae is short, and does not reach to the ocelli; the pedicle is bare, broader than long; the first joint of the flagellum is slightly longer than the second.

This species, as regards the position of the antennae, stands between *Halticella* and *Chalcis*, it being placed higher up than in the former, but not so high as in the latter. There are ten joints in the antennae; the last is fully one-half longer than the ninth. It may be composed of more than one joint, but I cannot see any suture.

## CÆLOCHALCIS CARINIFRONS, sp. nov.

Black, the mesonotum and scutellum covered with pale golden pubescence; the mandibles and palpi, the apex of the hinder coxae,

the femora and tibiæ, red; the four anterior legs black, the apex of the femora, the base and apex of the tibiæ, and the tarsi rufo-testaceous; the wings hyaline, the nervures black; the tegulæ red. ♂. Length, 4 mm.

*Hab.* Sikkim.

The antennal tubercles and the scape smooth and shining; the flagellum opaque. Face roundly convex, smooth and shining; the malar space opaque, closely punctured, margined in front and behind. Centre of the frontal depression closely, transversely striated. Pro-, mesonotum, and scutellum closely, uniformly punctured. Metanotum irregularly reticulated and striated on the sides of the central area. The depressed base of the mesopleuræ striated; the rest irregularly, coarsely rugose; the metapleuræ irregularly reticulated. Third and following segments of the abdomen thickly covered with white pubescence.

(To be continued.)

## NEW CULICIDÆ FROM THE FEDERATED MALAY STATES.

By FRED. V. THEOBALD, M.A.

(Continued from p. 78.)

*DANIELSIA ALBOTÆNIATA*, Leicester, n. sp.

“Thorax with the anterior half scaled shiny silvery white, remainder brown, a lateral brown spot on each side of the silvery anterior area. Abdomen brown, with basal white bands. Hind legs broadly pale-banded basally; fore and mid with indistinct pale bands to metatarsi and first tarsals.

“♀. Head black, with frosty tomentum; there is a bare line down the centre, with a few narrow-curved scales on either side of it; outside this behind, and in front between the eyes, the head is thickly clad with broad spatulate scales slightly brown-tinged; there is an oblong spot, parallel with the orbital margin, of broad black scales, laterally white flat scales, then another small spot of black scales; behind these are numerous upright forked scales, mostly black, with a few light brown ones. On the apex, between the eyes on either side, three bristles, light brown at the base, black at the apex, project forwards, more laterally there are three other bristles and then two. Antennæ with the basal joint muddy with a dusky hue, clad with white scales on its inner surface; second joint muddy at its base, black at the apex, clad with longish black scales; remaining joints black, pale at the nodes, verticillate hairs black; silky white hairs on the internodes. Palpi four-jointed; the two first joints round and small; the third joint somewhat swollen; the fourth longer than the third; fifth very minute and nipple-like, thickly covered with black scales with a few long black bristles. Proboscis covered with black scales, except for one-fourth its length in the middle, clad with creamy scales.

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10. G. DE ROCQUINY-ADANSON: "Accouplement de Névroptères" (*l. c.* 227 (1903)).
11. J. E. GUTHRIE: "The Collembola of Minnesota" *Geol. & Nat. Hist. Survey Minn.*, Zool. no. 4, pp. 1-110, 16 plates (1903) [18 new species].
12. T. GARBOWSKI: "Parthogenese bei *Porthesia*" (*Zool. Anzeiger*, xxvii. 212-14 [Lepid.] (1904)).
13. W. P. COCKERELL: "A Trip to the Truchas Peaks, New Mexico" (1903 [pub. 1904?]). *American Nat.* xxxvii. 887-91). Several insects recorded, with a new var. of *Bombus* [Hymen.].
14. W. W. FROGGATT: "Notes on the Genus *Psychopsis*, Newman, with descriptions of new species" (*Proc. Linn. Soc. New South Wales*, xxviii. 453-6, pl. 21 (1903) [Neuroptera]).
15. G. D'UTRA: "Contra os inimigos do fumo" (*Bol. da Agricultura Sao Paulo*, iv. 111-22; 3 text-figs. (1903)). Notices of a number of enemies of the tobacco plant.
16. ADOLPH HEMPEL: "Notas sobre alguns insectos nocivos" (*l. c.* iii. 237-55 (1902)). Notes on some of the insect pests of S. Paulo, containing detailed descriptions of several Brazilian Coccidæ and Aleyrodidæ.

(To be continued.)

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## ON SOME NEW GENERA AND SPECIES OF HYMENOPTERA.

By P. CAMERON.

CHALCIDIDÆ.

(Continued from p. 111.)

### ONCOCHALCIS, gen. nov.

Antennæ short, thick, eleven-jointed, the scape not reaching to the ocelli; they are widely separated from the mouth. Mandibles 3-dentate; the teeth small, the central smaller than the others, almost obsolete. Temples short; the occiput transverse. Parapsidal furrows distinct, curved. Scutellum large, its apex broadly rounded, with a short projecting border. Metanotum short, reticulated, its apex with a steep slope. Abdominal petiole sessile, the ovipositor short. Hind femora largely thickened, beneath minutely dentate. Middle tibiæ spined. Submarginal vein twice the length of the marginal, the post-marginal half the length of the marginal, the stigmal vein short, about twice longer than broad. The mandibular teeth are small and indistinctly separated; the first abdominal segment is about one-third shorter than the others united; the scape of the antennæ is half the length of the flagellum; the femoral teeth in one species are distinct, in another indistinct.

## ONCOCHALCIS MARGINATA, sp. nov.

Black; the tegulae, apical third of anterior, apical fourth of four posterior femora, and the tibiae and tarsi bright luteous; the four front tibiae with a dark fuscous band on the basal half; the hinder femora with five stout teeth on the apical half, the apical two close together, the others more widely separated; the base indistinctly toothed; the apex of clypeus with a distinct projecting border, which is widest in the middle; the median segment coarsely and distinctly reticulated, the base with a row of areae, of which the middle two are the wider. Wings hyaline, the nervures black. ♀. Length, 5-6 mm.

*Hab.* India.

Scape of antennae shining, covered with a microscopic down; the flagellum opaque, covered thickly with a pale pile; the third and fourth joints equal in length, the last pale and hollowed on the apex in the centre. Front and vertex rather strongly punctured; the lower part of the front, the sides, and to a less extent the centre of the face, thickly covered with longish silvery pubescence. In the centre of the face is a smooth, shining, raised plate, which is obliquely narrowed above; the lower part slightly narrower and roundly incised laterally. Clypeus smooth, punctured closely in the centre. Apex of mandibles broadly piceous, the base opaque, closely punctured. Pro- and mesonotum closely punctured, the centre of the latter more strongly than the sides; the sides of the former indistinctly bordered at the base; the parapsidal furrows curved, shallow. The areae on the metanotum are irregularly striated; the central basal is sharply, obliquely narrowed at the base. Propleurae irregularly striated in the centre; the upper part of the meso- smooth, and with a row of large round foveae; the lower coarsely, irregularly longitudinally striated and reticulated; the rest smooth, with the upper two-thirds irregularly striated. Metapleurae closely, irregularly rugosely reticulated. The third and following segments of the abdomen are thickly covered with white pubescence; the penultimate segment closely and strongly punctured, and thickly covered with long silvery pubescence. The lower part of the outer orbits are distinctly margined, as is also, less strongly, the lower part of the malar space, the border on the latter being shining; the inner side has also a shining margin, which is continued obliquely upwards below the eye.

May be known from *O. deesæ* by the stronger femoral teeth, by the more strongly developed temples, and by its more robust form.

## ICHNEUMONIDÆ.

## CÆLOJOPPA, gen. nov.

Scutellum not much raised, its sides distinctly keeled to near the apex. Median segment completely areolated; the areola large, transverse at the apex; the basal half obliquely narrowed, with the centre at the base rounded; the segment is large; its apex has an oblique slope, and is toothed above laterally. Head large, the temples large, roundly narrowed; the occiput roundly and deeply incised, margined above. Face and clypeus flat, not separated; the apex of clypeus

ON SOME NEW GENERA AND SPECIES OF  
HYMENOPTERA.

By P. CAMERON.

(Continued from p. 163.)

## ICHNEUMONIDÆ.

## CÆLOJOPPA CARINISCUTIS, sp. nov.

Black, shining; the face, clypeus, the orbits, the basal half of the mandibles, palpi, a line on the pronotum, a slightly broader one on the lower edge of the propleuræ, an irregular mark, broader than long, on the mesonotum, the scutellums, the lower half of the mesopleuræ, the base of the mark curved upwards, the part under the hind wings, the apex of the metanotum all round, the line narrowed on the top and at the bottom reaching to the coxæ, the narrowed part of the petiole, the apex of the post-petiole, and of the other segments broadly, pale yellow. The four front legs pallid yellow, the femora fulvous above, the hinder legs dark fulvous, the coxæ and trochanters more yellowish in tint, and marked with black on the outer half at the apex; the tibiæ darker in tint. Wings clear hyaline, the stigma fuscous, the nervures darker. Petiole smooth and shining; a fovea at the base of the post-scutellum; the second and following segments closely punctured; the gastrocoeli strongly striated, the apex testaceous. ♀. Length, 8 mm.

*Hab.* Darjeeling.

## SPILOJOPPA, gen. nov.

Scutellum flat, broad, not keeled laterally. Areola large, almost twice longer than broad, of equal width throughout, open at the base; the lateral areæ are separated; there are no teeth on the apex. Head large, as broad as the thorax; the temples broad, the occiput roundly incised. Eyes large, parallel; the malar space small. Clypeus not separated, its apex transverse, its sides rounded. Labrum hidden. Mandibles with the upper tooth much larger than the lower. Antennæ stout, dilated and compressed beyond the middle. Petiole long, the post-petiole not much dilated, the second and third segments closely punctured, closely and finely longitudinally striated at the base. Gastrocoeli large, deep; the last segment is fully larger than the sixth; the sheaths of the ovipositor largely project; the ventral keel extends to the apex of the fourth segment. Areolet five-angled, narrowed above; the disco-cubital nervure broken by a minute stump; the transverse median nervure is received distinctly beyond the transverse basal. Legs of moderate length; the apices of the tarsal joints spinose. The known species is black, largely marked with yellow, the legs rufous. The second to fifth abdominal segments project at the apices laterally.

Belongs to the Joppini, and is not unlike *Cælojoppa* in form and coloration, but may be known from it by the flatter, not keeled scutellum, and by the much larger areola of equal width throughout. The latter is larger than usual.



*SPILOJOPPA FULVIPES*, sp. nov.

Black; the face, clypeus, the eye-orbits—the outer more narrowly above—base of mandibles, palpi, the upper and lower edge of the prothorax—the lower line not reaching to the apex—tubercles, two lines on the central part of the mesonotum, the sides and the apex more narrowly of the scutellum—the black central line being gradually, roundly narrowed towards the base—the scutellar keels, post-scutellum, the areola, the apex of the metanotum, except on the posterior median area, the yellow extending on to the spiracular area and on to the pleuræ below, a large irregular mark on the lower part of the mesopleuræ, the mark being roundly dilated upwards at the apex, and extending narrowly near the apex on to the sternum, the tubercles, the apex of the mesopleuræ, a squarish mark behind the spiracles, and the apices of the first, fourth, and following segments, and two large marks on the apices of the second and third segments, pallid yellow. Legs bright fulvous, the four front coxæ and trochanters yellow, the hinder coxæ black, marked with yellow above; the hinder femora, &c., broken off in my example. Wings clear hyaline, the stigma dark testaceous, the nervures darker. ♀. Length, 12 mm.

*Hab.* Darjeeling.

## APIDÆ.

*PROSOPIS BASIMACULA*, sp. nov.

Black; the basal segment of the abdomen with a large irregular mark, commencing near the base and extending to the apex, where it extends to the sides, and having an irregular indentation on the inner side near the apex, brownish red; the apices of the third and fourth segments brownish, and covered with fulvous pubescence; the inner orbits from the base of the antennæ rufous, the red line continued to the base of the mandibles below. Legs black, the anterior tibiæ in front and the basal half of the hinder pair testaceous. Wings hyaline, the costal, radial, and cubital cellules smoky violaceous, the stigma and nervures black. ♀. Length, 8-9 mm.

*Hab.* Darjeeling.

First recurrent nervure received shortly beyond the transverse cubital, the second interstitial. Metanotal area coarsely rugosely reticulated. Front and vertex closely rugosely punctured; the face and clypeus bearing longish shallow clearly separated punctures. Malar space large, nearly as long as the third and fourth antennal joints united. Pro- and mesothorax closely and strongly, almost rugosely punctured; the apex of the pronotum is raised. Scutellum punctured like the mesonotum, the post-scutellum more closely rugosely punctured. The entire base of the metanotum is coarsely rugosely reticulated; the apex of the area and the rest of the metanotum closely rugose, the punctuation running into reticulations on the sides. The apex and lower part of the metapleuræ are closely rugose; the under side is bordered by a curved furrow, beneath which it is finely closely rugose. Abdomen finely, closely, and distinctly punctured.

This is larger than any of the recorded Indian species, with none of which can it be confounded. The face and the malar space are longer than usual.



*ANDRENA INOA*, sp. nov.

Black, the pubescence white, darker on the thorax, on the scutellums fulvous; the head closely and distinctly punctured; on the vertex the punctures are not so strong or so close as they are on the face, and it is also more shining. The metanotal area coarsely reticulated in the centre, the sides obliquely striated; the apical slope is irregularly reticulated, the striæ broken; its sides are keeled all round, and there is a stout keel in the centre, which commences shortly below the top. Legs piceous-black. Wings hyaline, the stigma testaceous, the nervures darker. ♂. Length, 9 mm.

*Hab.* Himalayas.

Head largely developed behind the eyes. Antennæ rather shorter than usual, with the joints not dilated below. Mandibles black, smooth, shining, and sparsely haired. Dorsal segments of abdomen closely and distinctly punctured; the middle ones slightly depressed at the apex. In the centre of the apical half of the penultimate ventral segment is a raised tubercle, covered with fulvous pubescence, broad and rounded at the base, and becoming gradually narrowed towards the apex; the last segment is closely punctured. In front the third cubital cellule is not much longer than the second; the third transverse cubital nervure is roundly curved, and is hardly obliquely sloped above as in most species of *Andrena*. The apex of the clypeus has a stout margin, clearly separated from the upper part; it is transverse, with the sides bent downwards.

Characteristic of this species is the keeled margin of the apex of the metanotum, with the stout keel in the centre. In Bingham's arrangement it would come in near *A. phædra*, Cam.

*HALICTUS HIMALAYENSIS*, sp. nov.

Black, the pubescence white, the wings clear hyaline, the nervures and stigma black; the base of the median segment with curved, irregular, clearly separated striæ, the apex of the segment distinctly margined, the anal rima with the apical half piceous. ♀. Length, 7 mm.

*Hab.* Himalaya.

The vertex indistinctly, the front closely and distinctly punctured; its lower part with a narrow keel in the centre. Face sparsely punctured, its centre almost impunctate; the clypeus is more strongly, but not quite so closely punctured as the sides of the face; its apex fringed with long white hair. Mesonotum shining and impunctate. Metapleuræ opaque, shagreened. Abdomen smooth and shining; the apical fringes white, the segments without transverse furrows or depressions. The legs have a brownish tint; the calcaria pale testaceous; the outer spur on the hinder tibiæ stoutly spined. The second recurrent nervure is received near the base of the apical third of the cellule. The head is more elongate and narrower than usual; the eyes converge above. The basal area of the metanotum appears larger than usual; its striæ in the centre are irregular; laterally more regular and oblique.

(To be continued.)

the more convex lateral pronotal margins, spotted connexivum, &c.; from *M. convexus*, Montand., it is distinguished by the head between the eyes being broader than long.

THURSELINUS, gen. nov.

Body ovate, moderately convex; head very large, almost as long as pronotum, rather more than one-third broader between eyes than long; eyes elongate, much narrowed, and slightly converging anteriorly; labrum rounded, reaching base of second joint of rostrum; pronotum scarcely broader than base of hemelytra, only slightly narrowed anteriorly, its anterior angles not reaching the middle of eyes; scutellum short, about twice as broad at base as long; hemelytra complete; mesonotum medially carinately longitudinally elevated; anterior femora amplified, inwardly notched towards base.

Differs from *Macrocoris* by the much larger and broader head; anterior angles of pronotum not reaching the middle of eyes; shorter and broader scutellum, &c.

*Thurselinus greeni*, sp. n.

Ochraceous; scutellum brownish ochraceous; eyes black; basal area of pronotum with some longitudinal piceous lines; body beneath and legs uniformly ochraceous; membrane clouded with pale fuscous; head almost as long as pronotum, its anterior margin convex, with a somewhat flattened central basal space; pronotum transversely striate near anterior margin, very finely and obscurely punctate, the lateral margins slightly rounded, a little narrowed anteriorly, but almost subparallel; scutellum very finely granulose, broadly subtriangular; connexivum piceous at segmental incisures. Long. 6 millim.

*Hab.* Ceylon; Keshewa (E. E. Green).

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ON SOME NEW GENERA AND SPECIES OF  
HYMENOPTERA.

By P. CAMERON.

(Concluded from p. 210.)

VESPIDÆ.

ODYNERUS CAMICRUS, sp. nov.

Black; the base of the abdomen with two sutures at the base, the space between them laterally depressed, smooth, shining, and marked with stout keels; the under side of the scape, the clypeus, a mark, longer than broad, and with the lower half much narrowed above the antennæ, the inner half of the eye incision, a large triangular mark on the sides of the pronotum, the tegulæ, post-scutellum, and a line on the first and second abdominal segments, yellow. Legs black, the knees, the four front tibiæ anteriorly, and the tarsi, testaceous. Wings hyaline, the radial cellule smoky, the base hyaline. ♂. Length, 7 mm.

*Hab.* Darjeeling.

The apical two joints of the antennæ are rufous below, and the last also at the sides. Front and vertex closely rugosely punctured, and sparsely covered with silvery pubescence. Clypeus longer than broad, above broadly rounded, the apex shortly stoutly bidentate; the space between the teeth shallow. Pro- and mesothorax rugosely punctured, the top of the pro- smooth, above margined. Metanotum rugose in the middle at the base, the sides reticulated; the apex smooth; the sides stoutly margined; the metapleuræ, on the upper half, irregularly, rather weakly reticulated. Apical half of first abdominal segment punctured and covered with a fulvous pile, the rest impunctate; the second, third, and the base of the fourth segments closely punctured; the other segments impunctate. The band on the first segment is only on the top; on the second it goes all round. The head and thorax are thickly covered with white pubescence; the base of the mesopleuræ below the middle is impunctate, and there is at the top of the smooth part a short deep oblique furrow; the pro- smooth at the base, the smooth part behind having a distinct border; the apex of the metanotum is deeply roundly hollowed; the apex of the pronotum is very little developed in front of the mesonotum, and is transverse; the apex of the scutellum is almost crenulated. There is a small mark behind the eye.

Cannot well be confounded with any of the Oriental species of the section *Ancistrocerus*.

#### FOSSORES.

##### CRABRO TRICHIOSOMUS, sp. nov.

Black; a narrow line on the scape of the antennæ, a broad interrupted line on the pronotum, two irregular transverse marks on the second, third, and fourth abdominal segments—the marks becoming smaller successively—yellow; the head, thorax, and base of abdomen thickly covered with long white, the rest of the abdomen with shorter white pubescence. Legs black, the hinder calcaria large, broad, and yellow. Metanotal area coarsely punctured and deeply furrowed in the middle. Wings hyaline, the nervures and stigma black. ♀. Length, 7 mm.

##### *Hab.* Himalayas.

Front and vertex closely and distinctly punctured, the latter more strongly than the front. Front, face, and clypeus covered with silvery pubescence; the face keeled in the middle, the apex of the clypeus broadly rounded. Mesonotum and scutellum closely and distinctly punctured; the post-scutellum is more shining and less strongly punctured. Metanotum deeply depressed at the base; the depression with some stout striæ; the basal area has the punctures larger and more irregular on the sides; the apical slope is coarsely, closely transversely striated. The upper part of the propleuræ is obliquely, the lower longitudinally striated, its apex stoutly keeled. Mesopleuræ punctured, but not strongly or closely; the meta- closely, strongly obliquely striated. Abdomen closely punctured, the second, third, and fourth segments depressed at the base and apex; the first slightly, but distinctly longer than the width at the apex; the pygidium closely, but not strongly, punctured. The apical abscissa of the radius is obliquely bent.



This species will form a new section in Bingham's "B" and c, defined by the metanotal area being punctured.

*CRABRO AGYCUS*, sp. nov.

Black; the base of the median segment with three areæ, the central being narrower than the others; the scape of the antennæ, the mandibles above, a broad line on the pronotum, the scutellar tubercles, a large mark on the sides of the scutellum at the base, broadest on the outer side, and with a semicircular small incision in the middle, the post-scutellum, a line on the first abdominal segment, narrowed in the middle, a small mark on the second laterally, and large broad ones on the third to fifth segments, the tubercles, a small mark behind them, and a larger longer mark, narrowed below, behind that, lemon-yellow. Legs yellow; all the coxæ and trochanters, the basal half of the fore femora above and the lower part, the greater part of the middle femora below, the hinder, except on the top, the four hinder tibiæ in front, and at the top and bottom behind, black; the tarsi infuscated towards the apex. Wings hyaline, the stigma fuscous, the nervures darker. ♀. Length, 8 mm.

*Hab.* Himalayas.

Front and vertex smooth and shining; the front covered with golden pubescence; the vertex sparsely pilose; the face and clypeus covered with silvery pubescence. Mandibles smooth and shining; the two apical teeth stout, clearly separated. Metanotal areæ smooth; the central is of almost equal width; the inner lateral become roundly narrowed towards the apex; the outer lateral of almost equal width; the sides of the apical slope are bordered by keels. Pleuræ smooth and shining; the tubercles large, projecting. The mesopleural furrow is obscurely crenulated. Pygidium keeled laterally, and bearing large punctures. The hinder tibiæ become gradually thicker towards the apex, and bear some stout spines; their metatarsus not thickened.

This species may be known from the recorded Indian species by the five clearly defined areæ on the base of the median segment.

*BEMBEX MEGADONTA*, sp. nov.

♂. Black; the apical two-thirds of the clypeus, labrum, mandibles, except at the apex, the outer eye-orbits narrowly, the apex of the pronotum broadly, the edges of the propleuræ all round, the lower narrowly, the sides of the metanotum, the apical half of the meta-pleuræ, and the apices of the scutellum and post-scutellum, pale yellow. Abdomen pale yellow; a broad black band on the base of the first segment, narrowed and roundly incised at the apex, a broad band on its apex, roundly narrowed laterally, two spots broader than long on the base of the second, an irregular band on its apex, a band on the base of the third with two dilatations in the middle, a narrow band on its apex, dilated in the centre; similar bands on the fourth segment, the basal half of the fifth, the band with a shallow incision on the apex, and the whole of the apical two segments, black; the ventral segments black, their sides at the apex irregularly marked with yellow. Legs yellow, all the coxæ, a broad line on the top of the first pair of

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femora above, the four posterior broadly above and below to near the apex, a line on the centre of the fore tibiæ before and behind, and on the four posterior, black. Wings hyaline; the costa and basal nervures testaceous, the others darker. ♂. Length, 17 mm.

*Hab.* Darjeeling.

Head and thorax thickly covered with white longish pubescence; the first transverse cubital nervure is largely dilated backwards below; on the second ventral segment is a large tooth, which commences near the base and extends to the apex; it is roundly broadly curved, and becomes narrowed towards the apex below; the apical part is also roundly curved; the sixth segment is broadly raised in the middle; this raised part becomes narrowed towards the apex, which is rounded, and has there an oblique slope. The last segment is punctured, except in the centre, where there is a smooth shining band; it becomes gradually narrowed towards the apex, the sides being only indistinctly curved. The basal joint of the front tarsi is stout, and is longer than the three following united; the spines are long, pale, and moderately stout; the middle femora are irregularly toothed; the teeth are more numerous on the basal half. Eyes almost parallel, only very slightly divergent below. Front keeled. The yellow bands on the abdomen are sulphur-yellow on the base, paler on the apex.

In Bingham's arrangement the species would come, in his table, close to *B. pinguis* and *B. fossoria*. Characteristic is the very large tooth on the second ventral segment.

#### NOTES AND OBSERVATIONS.

THE TUBERCLES OF SATURNIA CARPINI. — Referring to Mr. Lucas's note respecting the colour of the tubercles in larvæ of *S. carpinii* (*ante*, p. 240), I may mention that a half-grown larva of this species was brought to me about six weeks ago, having bright crimson tubercles. After having kept it a week or so, it changed its skin, and also the colour of its tubercles, which were dull orange from then up to the time of its death, which occurred when quite full-grown.—G. F. LYLE; Brockenhurst, Sept. 12th, 1904.

LARVÆ OF ARCTIA CAIA SWARMING IN THE SCILLY ISLANDS. — During my stay in the Scilly Islands from the middle of May to the middle of June last, all the larger islands were teeming with thousands of the larvæ of *A. caia*. They swarmed in such myriads that no vegetation escaped them—they fed on any green stuff available from stonecrop to shrubs of various kinds. Bracken seemed in great demand, also various other ferns, &c. Every path and roadway was dotted all over with their crushed bodies.—F. W. FROHAWK.

APORIA CRATÆGI ab.—During last July I found the headquarters of a batch of imagos of *Aporia cratægi*, and captured twenty specimens. There were no varieties, but one of them turned out to be a little bit of a freak, for the hind margins of each wing had two curves instead of one. At first I thought it was a crippled specimen, but it proved