WL Brown ON THE GEOPHAGUS OF THE RUMINAN

> Finally, the Ruminant's esophagus differs widely from the human as regards the microscopic character of its muscular fibre; for while in the human gullet there is a mixture of striped and unstriped fibres, in the Ruminant's they are all of the striped variety.

> In conclusion, I have to acknowledge by obligations to my

friend Mr. Deas, to whose kindness I owe the beautiful and very accurate drawings which illustrate this paper.

EXPLANATION OF THE PLATE.

PLATE III

Fig. 1. Portion of sheep's gullet, twice the natural size (seen from within). The fibres of the internal layer, c.c., tre seen decussating and running into the external layer, s.B.; while at A is seen a non-decussating bundle passing outside the decussation, from the outer layer of the one side of the decussation to that of the other side.

Fig. 2. The entire circumference of a sheep's cesophagus, seen from within (natural size). It has both simply sitt open and dissected. Above, $\lambda_1' \lambda_1''$ are seen the two times of decussation; n_1 abundle of fibres which has not decussated at the decussation; λ_1' and λ_1' a similar bundle which has not decussated at λ'' . n_1 abundle of fibres of the inner layer which decussates at the line of decussation λ'' ; and π_1 a similar bundle which has not decussated at λ'' . n_2 abundle of fibres of the inner layer which decussates at the line of decussation λ'' ; and π_2 and π_3 and π_4 are the fibre of the fibres of the fi similar bundle which decussates at the line A'. p runs up to form B, and n goes to form , both in the outer layer; below n they separate into their finest fibres and interdigitate one with another. c c, outer layer.

Fig. 3. Two portions of the osophagus of a sheep (natural size), to show the difference between the inner and outer aspects of the line of decussation. In A it is seen from the inside. All the fibres decussate, so that the decussation is sharp and well defined; but on the outside, B, it is much obscured by the non-decussating fibres, which, instead of dipping down as in A, run across from one side of the line to the other. q c, outer layers. p, inner layer.

Descriptions of New Species of Hymenopterous Insects from the Islands of Sumatra, Sula, Gilolo, Salwatty, and New Guinea, collected by Mr. A. R. Wallace. By Frederick Smith, Assistant in the Zoological Department, British Museum. Communicated by W. W. SAUNDERS, Esq., V.P.L.S.

PLATE IV.1 [Read June 2, 1864.]

THE collections of Hymenoptera which are described in the following list contain several insects of especial interest. Three new LINN. PROC .- ZOOLOGY, VOL. VIII.

Fam. FORMICIDÆ, Leach.

Gen. Formica, Linn.

- FORMICA GIGAS, Latr. Hist. Nat. Fourm. p. 105. Hab. Sumatra.
- FORMICA COMPRESSA, Fabr. Syst. Piez. p. 396. Hab. Sumatra.
- FORMICA FESTINA, Smith, Proc. Linn. Soc. ii. p. 53. Hab. Sumatra.
- FORMICA RUFIFRONS, Smith, Proc. Linn. Soc. v. p. 95.
 Hab. Morty Island, New Guinea, Salwatty.
- FORMICA CAMELINA, Smith, Proc. Linn. Soc. ii. p. 57.
 Hab. Sumatra.
- FORMICA COXALIS, Smith, Proc. Linn. Soc. iv. p. 136.
 Hab. New Guinea.
- FORMICA QUADRICEPS, Smith, Proc. Linn. Soc. iv. p. 137.
 Hab. New Guinea.
- FORMICA (MYRMECOPSIS) RESPICIENS. F. nigra, nitida; mandibulis, scapo, tibiis tarsisque pallide ferrugineis; prothorace abdomineque basi pallide flavis; oculis magnis.
- Worker. Length 3 lines. Black and shining; the head oblong, sides nearly parallel; the eyes very large, orate, extending to the posterior angles of the head; the anterior portion of the clypeus, the mandbles, scapes, tibins, tarais, and tips of the femora pale ferruginous. Thorax compressed behind; the prothorax above, the first segment of the abdomen and the basal margin of the second pale yellow; the seale of the peduncle oblong, slightly rounded above. (Pl. IV. fig. 3, § 1). Hab. New Guine.

This remarkable Ant, of which a figure is given, will probably constitute the type of a new genus. The greatly enlarged eyes, placed backwards on the head, give it a different sapect from any species previously described. Unfortunately the only specimen received is in such a mutilated condition that I could not examine the parts of the mouth. Should an examination of more specimens prove my conjecture to be correct, I would propose the name Myrmecopies for the genus.

Gen. POLYBHACHIS, Smith.

- POLYRHACHIS SEXSPINOSUS, Latr. Hist. Nat. Fourm. p. 126. Hab. New Guinea.
- POLYRHACHIS ITHONUS, Smith, Proc. Linn. Soc. v. p. 99. Hab. Salwatty; Morty Island.

- 3. Polyrhachis bihamatus, Drury, Ins. ii. pl. 38. Hali. New Guinea: Sumatra.
- POLYRHACHIS ACANTHA, Smith, Proc. Linn. Soc. v. p. 98. Hab. Salwatty; Morty Island.
- POLYRHACHIS SERICATUS, Guér. Voy. Coq. Zool. ii. p. 203. Hab. Salwatty.
- POLYRHACHIS CHALYBEUS, Smith, Proc. Linn. Soc. ii. p. 61.
 Hab. Sumatra.
- POLYRHACHIS PANDARUS, Smith, Proc. Linn. Soc. ii. p. 62.
 Hab. Sumatra.
- POLYRHACHIS EUDORA, Smith, Proc. Linn. Soc. v. p. 99. Hab. Sumatra.
- POLYRHACHIS VILLIPES, Smith, Proc. Linn. Soc. ii. p. 61.
 Hab. Sumatra.
- POLYRHACHIS BUBASTES, Smith, Proc. Linn. Soc. vii. p. 15. Hab. Morty Island.
- POLYRHACHIS BELLICOSUS, Smith, Proc. Linn. Soc. iv. p. 142.
 Hab. Morty Island.
- POLYRHACHIS MARGINATUS, Smith, Proc. Linn. Soc. iv. p. 139.
 Hab. Gilolo.
- 13. POLYRHACHIS DIVES, Smith, Proc. Linn. Soc. ii. p. 64. Hab. Sula.
- 14. POLYRHACHIS DIAPHANTUS, Smith, Proc. Linn. Soc. vi. p. 40. Hab. Sula.
- 15. POLYRHACHIS RUGIFRONS, Smith, Proc. Linn. Soc. v. p. 70. Hab. Salwattv.
- POLYRHACHIS ATROPOS, Smith, Proc. Linn. Soc. v. p. 100. Hab. Gilolo.
- POLYRHACHIS NEPTUNUS. P. niger; thorace elongato, supra deplanato, dentibus duobus parvis antice et postice armato; abdominis pedunculo trispinoso.
- Worker. Length 2\(\phi\) lines. Black; the apical joint of the flagellum and the claw-joint of the tarsi rufo-testaceous; tips of the mandibles forruginous. The head anteriorly striated, posteriorly shapreened as far as the insertion of the antenne; the extreme base of the scape ferraginous. Thours flat above; transverse in front, with the lateral angles produced into short acute spines; the sutures of the pro- and mesothorax deeply impressed; the disk shapreened; the metathorax with two short erect spines. Abdomen globose, smooth and shining; the node of the peduncle increasate, and arrued above with three long, erect, acute spines. (Pl. IV. fig. 2, § 5)
- Hab. New Guinea.

Gen. ECHINOPLA, Smith.

- ECHINOPLA MELANARCTOS, Smith, Proc. Linn. Soc. ii. p. 79. Hab. Sumatra.
- ECHINOPLA STRIATA, Smith, Proc. Linn. Soc. ii. p. 80. Hab. Sumatra.

Gen. ŒCOPHYLLA, Smith.

 ŒCOPHYLLA SMARAGDINA, Smith, Proc. Linn. Soc. v. p. 101. Hab. Morty Island; Salwatty.

Fam. PONERIDÆ, Smith.

Gen. Odontomachus, Latr.

- ODONTOMACHUS CEPHALOTES, Smith, Proc. Linn. Soc. vii. p. 19. Hab. Morty Island; Sula.
- 2. Odontomachus nigriceps, Smith, Proc. Linn. Soc. v. p. 103. Hab. Dory.
- ODONTOMACHUS ACICULATUS, Smith, Proc. Linn. Soc. vii. p. 19.
 Hab. New Guines.

Gen. Ponera, Latr.

- PONERA STRIATA, Smith, Proc. Linn. Soc. v. p. 104. Hab. Morty Island.
- PONERA CUPREA, Smith, Proc. Linn. Soc. v. p. 104.
 Hab. New Guinea; Sula.
- Ponera simillima, Smith, Proc. Linn. Soc. v. p. 104. Hab. New Guinea.
- PONERA 4-DENTATA, Smith, Proc. Linn. Soc. iv. p. 143. Hab. Sula.
- 5. PORERA PEROX. P. higra; capite clongato, aciculato; thorace abdomineque levibus, nitidis; flagello tarsisque pallide ferrugineis. Worker. Length 4½ lines. Shining black; the head longitudinally aciculate; the prothorax with a few fines strice anteriorly; the sides of the thorax with a few irregular strin, otherwise smooth and shining; the node of the pedundle subquadrate and increasate, and, as well as the abdomen, amooth and shining; the noise Jesgment ferruginous. The mandibles, extreme base and apex of the scape, the flagellum, except the basal joint, and the taris and articulations of the legs ferruginous; the calcaris pale testaceous.

Hab. Salwatty.

This species is very like *P. simillima*; but it is a larger insect; and the thorax is smooth and shining, in *P. simillima* it is striated and opake.

Gen. Pachycondyla, Smith.

 PACHYCONDYLA MELANCHOLICA. P. nigra, opaca; antennis, mandibulis, tibiis tarsisque ferrugineis.

Worker. Length 3 lines. Opake black, the second and following segments of the abdomen finely slagreemed; the head oblong; the eyes small, not prominent, and situated near the base of the mandibles; the sides curved, the vertex transverse; the sides of the thorax nearly parallel, the metathorax obliquely truncate; the note of the peducule rounded anteriorly, truncate posteriorly, and filling the base of the first abdominal segment, but not quite so wide, rugose above. The mandibles, antennes, tibis, tarsi, and knees ferruginous. Hob. Morty Island.

Hab. Morty Island

This species belongs to the genus Pachycondyla of my Catalogue, the insects included in which have the body almost parallel, as well as the node of the peduncle, and the calcaria pectinate. Some continental authors have sunk this well-defined genus.

Gen. ECTATOMMA, Smith.

 ECTATOMMA RUGOSA, Smith, Proc. Linn. Soc. iv. p. 143. Hab. Sula.

Gen. Anomma, Shuck.

Anomma erratica. A. nigro-ferruginea; capite antice et abdomine basi pallide ferrugineis; flagello pedibusque ferrugineis.

Worker. Length 2 lines. Obscurely ferruginous; the anterior portion of the head, the mandibles, apex of the scape, and the flagellum pale ferruginous; the scape black; the mandibles with a single tooth inside, their apex curved and very scate. Thorax compressed; the legs ferruginous, the tibic and tarsi palest; the legs elongate. Abdomen ovate, the node of the pedundle and the first segment paler than the following segments. The insect impunctate, very smooth and shiming. Hab. New Guine.

This species is distinguished from the three species of the genus with which I am acquainted by the following particulars: the antennae are proportionally longer, the scape black, and the legs considerably more clongate.

The discovery of this genus in the Eastern Archipelago is, geographically, a circumstance of considerable interest, all the species previously known being African. Several hymenopterists have adopted the supposed affinity between Anomaa and Dovylus, Teigarding the former as worker or neuter forms of the latter. This affinity was first suggested by Dr. Savage, but I am not acquainted with a single circumstance even apparently confirmatory of such a supposition. The genus Dovylus is very abundant in India, but I have not seen a single Anomma from that country. I am much more inclined to suspect an affinity with Typhlopone, which I have frequently observed with Dorylus in collections from India, and also from Borneo.

Fam. MYRMICIDÆ, Smith.

Gen. Myrmica, Latr.

- MYRMICA PONEROIDES, Smith, Proc. Linn. Soc. v. p. 107. Hab. Morty Island; Sula.
- MYRMICA QUADRISPINOSA. M. nigro-fusca; thorace spinis duabus antice et postice armato.
 - Worker. Length I line. Dark brown-black, smooth and shining; the mandibles, antenne, and tarsi pale ferruginous; a longitudinal earina runs from the insertion of each antenna halfway towards the posterior margin of the vertex; oeelli obsolete; eyes small, situated midway at the sides of the head; the head is of the same form as in Myrmica rubra; the club of the antenne 3-jointed, the funiculus 8-jointed. Abdomen very finely striated longitudinally at the base; the peduncle subclongate, the first node conical, the second globose.

Hab. Salwatty. (Pl. IV. fig. 6, ♥.)

- It will be seen from the above description that the insect has several characters in common with those of the genus Mymica, in which I have placed it; but the discovery of the other sexes and an examination of the oral organs may render it necessary to separate it from the genus in which it is provisionally placed.
 - MYRMICA MALIGNA. M. rufo-nigra; clypeo, antennis pedibusque ferrugineis; capite et thorace dorso longitudinaliter striatis.
 - Penale. Length 5 lines. Obscurely rufous, the head anteriorly and the antenum bright ferruginous; the head longitudinally and strongly attriated above, delicately so beneath. Thorax oblong-orate; the mesothorax longitudinally striated above, with a smooth shiming space down the middle and a narrower one on each side; the prothorax striated, as well as the sides of the metathorax, the latter with a delicate transverse striation above; the sentellum smooth and shiming. Abdomen oblong-ovate, smooth and shiming, with a few erect glittering white sete at the apex; the nodes of the peduncle smooth and shiming.
 - Hab. Morty Island.
 - This is probably the female of M. aspersa.
 - MYRMICA ASPERSA. M. rufo-fulva; antennis apice pedibusque pallide ferrugineis; capite thoraceque scabrosis; metathorace bispinoso; abdomine ovato, petioli nodis sublævibus.
 - Worker. Length 2 lines. Varying in brightness of colouring, rufo-

fulvous or dark ferruginous, with intermediate shade of colouring. Head and thorax very coarsely longitudinally rugose, the head deeply strained; mandlelse smooth and pale ferruginous; the metathorax with two long, divergent, acute spines; the articulations of the legs and the tarsi pale ferruginous. The abdomen and nodes of the peduncle smooth and shining.

Hab. Morty Island.

 MYRMICA DILIGENS. M. capite abdomineque nigris; antennis, mandibulis, thorace pedibusque pallide ferrugineis; metathorace spinis longis acutis armato.

Worker. Length 2 lines. Head black, smooth and shining, anteriorly obscurely ferruginous; a few abbreviated longindinal strine above the clypeus; the mandibles pale ferruginous; the antenne ferruginous, palest towards their base. The thorax, legs, and first node of the abdomen pale ferruginous; the thorax coarsely rugose; the metathorax armed with two long seates spinse, extending to the second node of the abdomen. Abdomen ovate, very smooth and shining.

Hab. New Guinea.

Gen. Podomyrma, Smith.

 PODOMYRMA SYLVICOLA, Smith, Proc. Linn. Soc. v. p. 110. Hab. Morty Island.

PODOMYRMA BASALIS, Smith, Proc. Linn. Soc. iv. p. 147.
 Hab. New Guinea

Gen, Pseudomyrma, Guér.

 Pseudomyrma rufonigra, Jerdon, Madr. Journ. Lit. and Sci. iii. p. 53.

Hab. Sumatra.

 PSEUDOMYRMA CARBONARIA, Smith, Proc. Linn. Soc. vii. p. 20. Hab. Morty Island.

Gen. Myrmicaria, Saund.

 MYRMICARIA (HEPTACONDYLUS) RUGOSUS, Smith, Proc. Linn. Soc. v. p. 110.

Hab. New Guinea.

I have received all the sexes of a species of Myrmicaria from Port Natal: the female constituted my own genua Physactic; the workers formed my genus Heptacondylus; both must now sink, and be included in Mr. Saunders's genus Myrmicaria, undoubtedly the male of Physacta. The male has the normal number of joints in the antennae, namely thirteen, whilst the female, as well as the workers, have only seven.

Gen. CREMATOGASTER, Lund.

- CREMATOGASTER POLITUS. C. capite, thorace abdomineque basi castaneo-rufis: pedibus pallide rufo-testaceis.
- Worker. Length 1½ line. Head, thorax, and base of the abdomen reddish, chestust; very smooth and shining. Head large, wider than the abdomen; eyes small and, as well as the tips of the mandibles, black. Thorax deeply strangulated between the meso- and metathorax, the latter armed with two short, stout, acute spines; the legs pale rufo-testaceous. The abdomen heart-shaped, black, with the base and nodes of the pedunder reddish chestus.

Hab. New Guinea.

- CREMATOGASTER IRIDIPENNIS. C. pallide castaneo-rufus, lævis nitidusque; alis hyalinis, iridescentibus.
- Female. Length 22 lines. Pale chestnut-red, very smooth and highly polished. Head glassy smooth, the anterior part of a deeper red than the vertex; the ocelli situated in a darker stain; the mandibles with five black techt. Thorax ownet, the metathorax without spines; the wings colourless and brilliantly iridescent; the legs paler than the thorax. Abdomen oblong-over, the margins of the segments deeply depressed; the basal margins of the segments pale.

Hab. New Guinea.

- CREMATOGASTER TARSATUS. C. aterrimus, lævis et nitidus; antennis pedibusque rufo-piceis, tarsis albis.
- Worker. Length 1\(\frac{1}{2}\) line. Shining black, impunctate; the anterior portion of the head and the mandbles obscurely ferraginous; the tenture and legs rufo-piecous; the tarsi white; the anterior angles of the prothorax acute; the metathornx armed with two short, except acute spines. The shlomen rather wider than the head, its extreme page palle extanceous.

Hab. Morty Island.

Fam. ATTIDÆ, Smith.

Gen. Pheidole, Westw.

- PHEIDOLE MEGACEPHALA, Smith, Proc. Linn. Soc. v. p. 112. Hab. Sula.
- PHEIDOLE HOSPES. P. rufo-ferruginea; capite maximo, in medio sulcato, longitudinaliter striato; antennis pedibusque pallide ferrugineis; abdomine nigro.
- Worker (major). I ength 2\(\frac{1}{2}\) lines. Head and thomax Info-ferraginous; the head oblong-ovate, deeply notched behind, its anterior margin truncate; longitudinally strated, and having a longitudinal earma running from each antenna towards the vertex; the manshibes smooth and shining, their inner edge edentate; the antennae and legs pule ferraginous; the metathorax with two minute sharp spines; the second node of the abdomen, as well as the abdomen itself, bias of

Worker (minor). Length 1½ line. The general colouring the same as in the worker major, but rather paler; and of a very different form: the head of the ordinary size, oblong-ovate, narrowed behind the eyes abruptly towards the prothoraxy which forms a neck; the eyes are prominent, and situated midway at the side of the head (in the worker major they are about one-third from the anterior margin; but antenna and legs elongate; the metathoracic spines very minute. Hob. New Gimise.

Gen. Pheidolacanthinus, Smith.

Head large in the worker major; mandibles very stout, their inner edge sharp and smooth, not toothed; the antenne Il-jointed, the other but consisting of three joints; eyes minute, placed a little beyond the middle at the sides of the head. Thomx oblong, armed on each side in front with a long stout spine, eaute at its apex; the metathorax with two shorter spines. Abdomen ovate; the pedancle with two nodes.

The above characters are drawn from a unique example of a worker, and are necessarily incomplete, but, with the aid of a figure of the insect, will serve to discriminate the genus. It is very like a species of *Pheidole*, but has one joint less in the antenne; and the armed prothorax indicates, I think, more than a specific distinction. The capture of the other sexes will, I expect, justify its separation as a genus.

- Pheidolacanthinus armatus. P. rufo-ferrugineus; capite maximo, in medio sulcato et striato; thorace spinis duabus acutis antice et postice armato.
- Worker. Length 2 lines. Bright rufo-ferruginous; the abdomen very obscurely ferruginous, nearly black. Head very large, deeply striated longitudinally; the mandibles smooth and shining, their inner edge black and edentate. Thorax armed with two very stout, long spines in front, and two smaller ones on the metathorus; the femons increasate in the middle; the tarsi slender and pale testaccous. Abdomen delicately acciualts at the extreme base; the first node of the peduacle compressed, the second increassate and transverse. (Pl.1V. fig. 8, § .) Hob. Salvatty.

Gen. Solenopsis, Westw.

- SOLENOPSIS LÆVIS. S. rufo-testacea, lævis, tota nitidissima, nuda; metathoracis spinis minutissimis.
- Worker. Length 2½ lines. Rufo-testaceous, smooth, shining, and impunctate; the inner margin of the mandibles with four black teeth; the head wider than the abdomen; the eyes very minute, situated midway at the sides of the head. Thorax rounded anteriorly; the

metathorax with two minute spines. Abdomen ovate; the nodes oblong-ovate, the first pedunculate. Hab. Morty Island.

Subfam. Cryptoceridæ, Smith.

Gen. CATAULACUS, Smith.

- CATAULACUS SETOSUS, Smith, Proc. Linn. Soc. v. p. 114 & vii. p. 24.
 Hab. Morty Island.
- 2. CATAULACUS HISPIDULUS. C. niger, hispidus; capite thorace et abdomine rugosis; thorace spinis duabus validis postice armato.

Worker. Length 2\(2\) lines. Black and subopake; thinly sprinkled with short erect white sete; the head, thoras, fegs, and nodes of the abdomen roughly sculptured, the face longitudinally so, the lateral posterior angles of the head with deep coarse punctures or fossulest which are more or less confluent; the sculpture of the thorax above and of the nodes of the abdomen is similar; the legs are coarsely roughened; the abdomen is much more finely sculptured and is somewhat longitudinally aciculate, the base is coarser than the disk. The auterior thise and tarsi and the claw-joint of the intermediate and posterior pair ferruginous. The head transverse and widest behind, the sides being curved, the posterior angles acute the behind, the sides being curved, the posterior angles acute the thorax narrowed behind, transverse in front, the sides curved, terminating posteriority in two short, broad, acute spines. Abdomen ovate. (Pl. IV. fig. 7, § *).

Gen. Cephaloxys, Smith.

Head subtriangular in the \$\foats\$, deeply emarginate behind; eyes round, concealed beneath the grooves at the sides of the head; cell it three, placed in a triangle on the vertex; the antenne clavate, received into longitudinal grooves at the sides of the head above the eyes, the flagellum five-jointed; the mandibles subtriangular, multidentate. Thorax oblong-ovate, rounded anteriority, posteriorly emarginate and bidentate; legs moderately long and stout, the anterior tibies armed with a stout spine at their apex, the intermediate and posterior pair marmed. Abdomen ovate, the peduance with two nodes.

The unique specimen from which the above characters are drawn is a female; unfortunately the wings are wanting. The insect somewhat resembles the Ceratobasis singularis, which I characterized in the first volume of the 'Journal of Entomology;' but from that remarkable genus it is separated by its six-journal antennas, besides other characters; it is one of the most remarkable insects with which I am geounistic, and it is the only species which I have seen that has the eyes situated beneath the head.

- CRPHALOXYS CAPITATA. C. capite, thorace pedibusque ferrugineis, abdomine fusco-brunneo.
- Female. Length 1½ line. Head, thorax, and legs ferruginous; the head heart-shaped; the mandibles porrect, continued in a line with the sides of the head, terminating in a point; the scape compressed; a black spot on the vertex, in which the ocelli are placed in a triangle. Thorax suboxate, the metathorax with two short spines; the margins of the scutellum dusky; the head and thorax finely rugose and sprinkled with minute white scales or sette. Abdomen smooth and shining, fuseous red or dark chestrut, with the base and apex pale; the nodes of the abdomen finely accicalate, and a few abbreviated strine at the extreme base of the abdomen. (Pl. 1.V. ag. 5, 2, 1)

Hab. New Guinea.

Fam. THYNNIDÆ, Erichs. Gen. THYNNUS. Fabr.

- THYNNUS LÆVISSIMUS. T. nigro-piceus, antennis pedibusque ferrugineis; abdominis segmento secundo striis quatuor transversis.
- Female. Length 3 lines. Dark brown, nearly black, smooth and shining; the antennae, mandibles, and legs ferruginous; the eyes lateral, touching the base of the mandibles. The mesothorax oblongquadrates, alightly concave, with a central longitudinal earins, the metathorax obliquely truncate. Abdomen oblong, smooth and shining; the margins of the segments narrowly pale testaceous; the second segment with four deep transverse strise; the spical segment ferruginous at the apex.

Hab. New Guinea.

- THYNNUS ATRATUS. T. niger, capite thoraceque rude punctatis; abdomine utrinque maculis flavis, segmento secundo transversim striato. (Fem.)
- Remaie. Length 6‡ lines. Black; the mandibles ferroginous in the middle; the legs obscurely rufo-t-estaceous, brightest beneath, the natterior and intermediate tible pale ferroginous beneath; a yellow spot on each side of the beast segment of a suboval form, pointed within; two smaller orate yellow spots on the third segment, and also a minute yellow spot at the extreme lateral margins of the third and fourth segments. The scape of the antennae very slender at the base, thickened and bent at the spex, and produced within into a sharp angle; the thorax transverse auteriorly, the margin slightly curved or emarginate; coarsely punctured above. The mandibles, legs, and the margino of the spical segments of the abdomen

