sponding to the first two bands on the fore wings ; a sub-marginal, indistinct, brown line on both wings.

Expanse of wings $\frac{7}{10}$ inch.

Siam, Muok-Lek, 1000 feet, January (*Fruhstorfer*).

Allied to *P. arbiter*, Butler. Some of the examples are very little more than half an inch in expanse of wings.

Bocchoris amandalis, nov.

♂. Palpi ochreous, top of second joint and the whole of the third joint purple-brown ; head and thorax purple-brown spotted with yellow ; abdomen with the first three segments yellow above, the remaining segments purple-brown, with white segmental bands : fore wings with the costa purple-brown ; both wings with the outer third of the same colour ; the interior of both wings yellow, the fore wings having many yellow spots ringed with purple-brown ; the hind wings with an acute medial transverse purple-brown line, touching a white spot in the middle of the wing, and four yellow spots on the interior border of the marginal band, one near the costa, the other three in the middle, touching each other. Underside of body and legs white ; wings pale, with the upperside markings showing through them.

Expanse of wings $\frac{8}{10}$ inch.

Siam, Muok-Lek, 1000 feet, January (*Fruhstorfer*).

LXXIV.—*New Species of Indian Aculeate Hymenoptera.*
By Major C. G. NURSE, Indian Army.

[Continued from p. 403.]

Pompilus venenatus, sp. n.

♀. Head and the greater portion of the thorax very closely and finely punctured, the punctures only visible with a microscope ; abdomen smooth and impunctate ; the post-scutellum, episternum and median segment finely and shallowly transversely striate ; head much wider than thorax, clypeus very convex, arched anteriorly, a tubercle behind the base of antennæ, bisected by a longitudinal impressed line, which reaches the anterior ocellus ; thorax when viewed from the side very convex, the pronotum short and rounded anteriorly, median segment emarginate at apex, the sides rounded, with an obscure median longitudinal furrow ; abdomen very convex, second segment with a ventral furrow.

Black: the abdomen, except the extreme base of the first segment, and the legs, except the coxæ, red; pruinose, a very little sparse silvery pile on the clypeus and front. Wings fusco-hyaline, nervures fuscous, tegulæ red; second and third cubital cells subequal at top and bottom, each more than half the length of first cubital cell; legs very long, tarsal claws unidentate.

♂. Similar, but more slenderly built; head much smaller; first abdominal segment sub-petiolate.

Long. 10–12 millim.

Hab. Deesa, Mt. Abu; a single example of each sex.

This species would come in Bingham's key on p. 149 next to *P. reflexus*; "b'" would then stand as follows:—

"b'." Abdomen more or less red.

a². Abdomen, except base of first segment, red *venenatus*.

b². Only first, second, and third segments red *reflexus*.

Pompilus kashmirensis, sp. n.

♀. Smooth and shining; head wider than pronotum, clypeus slightly emarginate in the centre anteriorly, the sides rounded; an impressed line from the base of antennæ to the anterior ocellus; pronotum rather short, rounded anteriorly, median segment rounded posteriorly; abdomen generally shorter than the head and thorax united; legs stout and sparsely spinose, tarsal claws unidentate, the tooth long and conspicuous. Jet-black: the wings fusco-hyaline or sub-fuscous, second and third cubital cells measured on the cubital nervure subequal; third cubital cell subtriangular, sometimes petiolate; apical abdominal segments with a few stiff fuscous hairs.

♂. Similar, smaller, the third cubital cell nearly always petiolate.

Long. ♀ 7–9, ♂ 6–8 millim.

Hab. Kashmir, 5000–6000 feet; common.

This species would come into Bingham's key on p. 149 next to *P. ariadne*, from which it differs in being devoid of pile, and in other respects.

Pompilus Julius, sp. n.

♀. Smooth, the abdomen somewhat shining, the median segment obscurely transversely striate; head slightly wider than thorax, clypeus very convex, its anterior margin rounded; a faintly impressed line from base of antennæ to anterior ocellus; pronotum short, rounded anteriorly, with a median impressed line; scutellum compressed at the sides,

median segment much below the level of mesonotum and scutellum, rounded posteriorly, and sloping gradually to apex; abdomen about the length of head and thorax united. Red: the antennæ at apex fuscous, and the apical second, third, or fourth segments of the abdomen shading off into black or fuscous; pruinose, in some specimens there is a little silvery pile on the clypeus and front, otherwise almost devoid of pile; apical two segments of abdomen with a few stiff fuscous hairs. Wings hyaline at base, shading off into subfuscous at apex; three cubital cells, the second measured on the cubital nervure longer than the third, which is about half as wide at the top as at the bottom; nervures dark fuscous, tegulæ red.

Long. 10-12 millim.

Hab. Deesa, Mt. Abu; not common.

This is closely allied to the three rufous Pompilidæ described by me in the Journal of the Bombay Nat. Hist. Soc. vol. xiv. no. 1, p. 84 (*P. horatius*, *brutus*, and *cassius*). It can be distinguished from all of them by having the median segment red, not black, and the abdomen black or dark fuscous at apex.

Pompilus Antonius, sp. n.

♂. Slenderly built, smooth and somewhat shining; head wider than pronotum, very convex in front, clypeus transverse anteriorly; pronotum short, rounded anteriorly, median segment rounded posteriorly; abdomen narrow, as long as head and thorax united, and having a flattened appearance above, the first segment much longer than its width at apex; legs sparsely spinose, the calcaria of intermediate and posterior legs remarkably long. Black: the apex of posterior femora and the whole of posterior tibiæ red; two small sub-lateral spots on second, and a band, narrowed in the centre, at base of third abdominal segment, yellowish white; head, scape of antennæ, and pronotum with somewhat sparse fuscous pubescence; median segment posteriorly and sixth abdominal segment with greyish pile; wings hyaline, slightly infuscated at apex, nervures and tegulæ blackish, the latter with a yellowish-white central spot.

Long. 6-8 millim.

Hab. Kashmir, 5000-6000 feet; rare.

Nearest to *P. capitosus*.

Ceropales Marcia, sp. n.

♂. Head, thorax, abdomen and legs smooth and pruinose; head wider than thorax, clypeus transverse anteriorly, an

impressed line from the base of antennæ to the anterior ocellus; pronotum short, transverse anteriorly, scutellum and postscutellum conspicuous, raised and convex; median segment gradually sloped, with a median furrow at apex, the sides rounded posteriorly; abdomen about the length of thorax, first segment nearly twice as long as its breadth at apex; third segment shorter than second. Black: the clypeus, except its posterior margin, which joins on to and forms part of a wedge-shaped central mark, a narrow line on the pronotum posteriorly, the anterior tarsi, and all the calcaria yellowish white; the anterior tibiæ and intermediate tarsi reddish testaceous; a little silvery pile on the front and median segment. Wings hyaline, a very faint fuscous cloud across the radial, second and third cubital, and second discoidal cells; nervures and tegulæ blackish.

Long. 5-6 millim.

Hab. Kashmir, 6000 feet; Mt. Abu. Rare.

Nearest to *C. albovariegata*.

Astata lubricata, sp. n.

♀. Head with somewhat sparse and shallow punctures, the vertex almost impunctate; mesonotum closely punctured anteriorly, more sparsely posteriorly, scutellum shining, with a few punctures, median segment rather coarsely rugose; abdomen shining, finely aciculate microscopically; head with a median impressed line from the base of antennæ to anterior ocellus; pronotum rather long and narrow, scutellum with a median longitudinal impressed line; median segment very long, with an obscure median line, truncate at apex, and very steeply sloped, a median depression just below the base of truncation. Black; the base of the mandibles, scape of the antennæ below, abdomen, and all the legs deep red; wings shining hyaline, apex of the fore wing from just beyond the stigma infuscated, nervures, stigmata, and tegulæ reddish testaceous; head and thorax with somewhat sparse greyish pubescence.

♂. Similar, the median segment more finely rugose, tegulæ yellowish white.

Long. 7-9 millim.

Hab. Deesa; not common.

This species would come in Bingham's key in a new section: "C. Abdomen and legs wholly red."

Tachytes flagellata, sp. n.

♂. Head and thorax finely and closely punctured; clypeus rounded anteriorly, its anterior margin bare and shining;

the eighth to the eleventh joints of the flagellum of the antennæ remarkably produced on the inside; median segment moderately long, convex, its sides rounded, with a central fovea. Black; the fourth and following joints of the flagellum of the antennæ, and the apical joints of the anterior tarsi, more or less red; the front covered with somewhat thick silvery pubescence; thorax pruinose, with sparse greyish pubescence; abdomen with short and rather sparse silvery pile, pygidium with silvery hairs; wings flavo-hyaline, nervures and tegulæ reddish testaceous.

Long. 11-13 millim.

Hab. Mt. Abu; fairly common.

Nearest to *T. vicina*, but the remarkably produced joints of the antennæ are sufficient to distinguish it from any other species.

Tachytes proxima, sp. n.

♀ ♂. Thickly covered with golden pile, which to a considerable extent hides the sculpturing, but the head and thorax appear to be closely punctured under it; clypeus rounded anteriorly, front somewhat concave, with an impressed median line reaching the vertex; scutellum and median segment with a median longitudinal impressed line, which on the latter terminates in a hollow or depression, this segment is short, very convex, the sides rounded. Black or reddish black; the femora, tibiæ, and tarsi red; the pile on the clypeus and front is longer and of a brighter golden than elsewhere; head and thorax with some sparse greyish pubescence in addition to the pile; on the abdomen the pile has a tessellated appearance; apical two abdominal segments with a few stiff fuscous hairs; pygidium with bright golden hairs; abdomen below shining, second segment minutely and closely punctured, remaining segments sparsely punctured, all the ventral segments except the first with a few stiff fuscous hairs at apex; wings flavo-hyaline, sometimes very slightly infuscated at apex, nervures flavo-testaceous, tegulæ red.

Long. 13-16 millim.

Hab. Deesa; common.

Nearest to *T. taprobance*.

Tachysphex nudus, sp. n.

♀ ♂. Head moderately closely punctured; mesonotum and scutellum sparsely punctured and shining, median segment above rugose; abdomen very finely and closely punctured, shining; clypeus rounded anteriorly, the front near

the base of antennæ very concave, the portion midway between base of antennæ and anterior ocellus raised, bare, and shining, almost tubercular; that between the ocelli similar; mesonotum broad anteriorly, median segment roundly truncate posteriorly, with a semicircular space in the centre above bare, rugose, and defined by a furrow; apical portion of segment with a median longitudinal furrow; abdomen short, not much longer than thorax. Head and thorax black; mandibles, scape and first joint of flagellum of antennæ, legs, and abdomen red; median segment reddish brown; clypeus and front with thick golden pile; cheeks and sides of median segment with rather short silvery pubescence, which has in some lights a golden tinge; abdomen bare; wings hyaline, with a very faint subapical fuscous cloud across the fore wing, nervures and tegulæ light testaceous.

Long. 7-8 millim.

Hab. Deesa; rare.

This species would come into Bingham's key in a new section: "C. Head and thorax black, abdomen red." In appearance it is more like a *Tachytes* than a *Tachysphex*, and the abdomen being bare makes it look at first sight as if it belonged to neither genus.

Tachysphex pollux, sp. n.

♂. Head and abdomen closely punctured; mesonotum, scutellum, and postscutellum more sparsely punctured; median segment somewhat finely rugose; clypeus bidentate anteriorly, the space near the ocelli raised and bisected by a longitudinal impressed line; median segment roundly truncate posteriorly; abdomen scarcely longer than thorax, the segments constricted at apex. Black, with silvery pile, thickest on the clypeus and front, elsewhere sparse, forming narrow apical bands on abdominal segments; the anterior tarsi on the underside, and the apical margins of abdominal segments, where denuded of pile, testaceous. The emargination at the base of anterior femora, characteristic of the genus, is conspicuous.

Long. 8 millim.

Hab. Deesa; a single specimen.

This species would come into Bingham's key next to *T. testaceipes*, from which it differs in sculpturing and other respects.

Tachysphex inventus, sp. n.

♂. Slenderly built; head, mesonotum, and scutellum closely but shallowly punctured; median segment finely

rugose; abdomen finely aciculate; clypeus convex, slightly rounded anteriorly, front concave near base of antennæ, but convex in the ocellar region, with the usual ocellar pad, which is bisected by a longitudinal impressed line, extending from base of antennæ to vertex; median segment truncate posteriorly, the sides slightly rounded; abdomen with the apical margins of segments 1-3 slightly depressed. Black; the tibiæ and tarsi rufo-testaceous; clypeus and front with very short silvery pile, which takes in some lights a golden tinge; thorax with a little greyish pubescence, thickest on the sides of the median segment; abdomen almost entirely devoid of pile or pubescence; wings hyaline, nervures and tegulæ testaceous; the emargination of the anterior femora is conspicuous.

Long. 7-8 millim.

Hab. Deesa; not common.

Nearest to *T. pollux* above.

Tachysphex projectus, sp. n.

♀. Clypeus anteriorly somewhat sparsely punctured, remainder of head and thorax finely and closely punctured; median segment above very finely longitudinally striate; abdomen smooth and shining; clypeus very convex, transverse anteriorly, an impressed line from the base of antennæ through the ocellar pad to the vertex; median segment rounded posteriorly. Head and thorax black; abdomen red, darker towards the apex; front with very short sparse silvery pile; thorax and legs with a little greyish pile; abdomen bare; all the tarsi more or less rufo-testaceous at apex, and their spines pale testaceous; wings subhyaline, nervures and tegulæ dark testaceous.

Long. 7 millim.

Hab. Kashmir, 5000-6000 feet; a single specimen.

Should come in Bingham's key under "B. b. c'. Median segment longitudinally striate."

Tachysphex conclusus, sp. n.

♀. Head and thorax granular, appearing, when viewed through a microscope, finely and regularly punctured; abdomen finely aciculate; clypeus very convex, rounded anteriorly, and emarginate in the centre, a median longitudinal impressed line from base of antennæ through ocellar pad to the vertex; median segment with the sides compressed at apex; abdomen about the same length as thorax. Black; the mandibles, the first and the greater part of the second abdominal segments, and the anterior tarsi dark red, sparsely

covered with silvery pile ; wings flavo-hyaline, nervures and tegulæ light testaceous.

♂. Similar, the clypeus and front with golden pile, the pile on the mesonotum appearing also golden in some lights ; all the tarsi are more or less rufous, and in some specimens the whole of the second and the basal half of the third abdominal segments are red.

Long. 7-10 millim.

Hab. Deesa, Mt. Abu ; not common.

Next to *T. auriceps*, but differs from that species in the sculpturing of the median segment, and in the greater part of the legs being black, not red.

Trypoxylon responsum, sp. n.

♀. Head very minutely punctured ; thorax and abdomen smooth ; clypeus rounded anteriorly, its margin slightly curved upwards ; a carina above the base of antennæ, joining on to a furrow from the anterior ocellus ; posterior margin of pronotum slightly constricted ; median segment with a median longitudinal furrow and two lateral convergent furrows, all obscurely transversely striate, the lateral furrows sometimes ill-defined ; abdomen about twice as long as head and thorax united. Black : the apex of the mandibles and the second and third abdominal segments more or less red ; the base of the tibiæ and the whole of the anterior and intermediate tarsi pale testaceous ; clypeus and front from below the emargination of the eyes, side of pronotum and thorax, and sides and apex of median segment with silvery pubescence.

Long. 13 millim.

Hab. Mount Abu ; three specimens.

Nearest to *T. canaliculatum*, from which it differs in size and in the clypeus not being carinate.

Ammophila Smithii (Baly).

The description of this species, which Bingham had not seen, and which is therefore only quoted by him, leaves much to be desired ; and as I have taken both sexes of an *Ammophila*, which I have little doubt is this species, I take this opportunity of giving a detailed description :—

♀. Head and pronotum almost smooth ; mesonotum and scutellum sparsely punctured ; median segment finely transversely striate in the middle above, the striation difficult to distinguish ; abdomen smooth, pruinose ; clypeus very convex, transverse anteriorly, a median furrow from base of antennæ to anterior ocellus, where it bifurcates in the direction

of the other ocelli; pronotum rather long, the sides rounded posteriorly; mesonotum and scutellum much raised, the former with a median longitudinal line, the latter notched. Head, thorax, fifth segment above, and the whole of the sixth and seventh abdominal segments black; the mandibles, except their tips, the anterior margin of clypeus, scape of antennæ, legs, and abdominal segments 1-4 red; head and thorax covered with a somewhat sparse white pubescence, which hides most of the sculpturing; wings subhyaline, nervures testaceous, tegulæ red.

♂. Similar, smaller; scape of antennæ, legs, and segments 1-4 of abdomen shaded with fuscous, especially the posterior legs, which are in some specimens almost black.

Long., ♀ 19-21, ♂ 14-15 millim.

Hab. Deesa, Ferozepore; common.

Ammophila philomela, sp. n.

♀. Slenderly built; pronotum and mesonotum transversely, scutellum and postscutellum somewhat coarsely longitudinally, median segment in the centre above finely longitudinally striate; abdomen smooth; head covered with fine silvery pubescence which hides the sculpturing; pronotum very long, gradually widening towards apex; the striation of the median segment does not show up clearly in all specimens, as the whole of the thorax is covered with a short but rather thick whitish pubescence, which gives it a frosted appearance; abdomen and legs pruinose, petiole of abdomen two-jointed. Red; the flagellum of the antennæ and the tips of the mandibles more or less black; the head and median segment appear dark, but their colour is difficult to determine owing to their being covered by pubescence; apical two or three segments blackish above; wings hyaline, nervures dark testaceous, tegulæ red.

Long. 18 millim.

Hab. Deesa; common.

This species would come into Bingham's key under "A. a. a'," new section c². "Median segment finely longitudinally striate along the middle."

Ammophila durga, sp. n.

♀. Head and thorax closely punctured, except in the region of the ocelli, where the punctures are somewhat sparse; abdomen and legs smooth and pruinose; clypeus much produced, its apex bisinuate, the sides rounded; an impressed

line, ending in a deep furrow, from base of antennæ to anterior ocellus; pronotum with the apical margin depressed; mesonotum with a median impressed line; median segment rounded at apex, gradually sloped, finely rugose, with a granular appearance, in some specimens running into transverse striæ; petiole of abdomen one-jointed, the petiole about one third the length of the whole abdomen. Black; the abdomen, except the petiole, red, becoming darker, almost black, at apex; head and thorax with rather long white pubescence, that on the front intermixed with a few black hairs, the vertex almost bare; wings hyaline, very faintly fuscous at apex, nervures and tegulæ rufo-testaceous. I cannot discover a tooth in the tarsal claws.

♂. Similar, more slenderly built, the head much smaller; clypeus only about half the width of that of the female.

Long. 16 millim.

Hab. Murree to Kashmir road, about 4000 feet; three or four specimens.

This species would come into Bingham's key as a new section, "Tarsal claws non-dentate."

Ammophila basalis (Smith).

The male of this species has not hitherto been described. It resembles the female, but all the legs are black. The amount of red on the abdomen varies considerably, and I have some specimens in which the abdomen is entirely black, except the ventral portion of the second segment. This species is very closely allied to *A. atripes*, both having the legs red in the female and black in the male. In fact the only reliable character by which they can be separated is that *A. basalis* has the basal portion of the median segment transversely striate, and not reticulate. So far as I have observed, there is little or no difference in size.

Hab. Deesa, Mt. Abu; common.

Psen kashmirensis, sp. n.

♀. Smooth and shining, with a few minute punctures on the vertex and mesonotum; clypeus short, transverse anteriorly; antennæ clavate; second joint of flagellum about half as long again as the third, the portion of the front between the bases of antennæ raised into a remarkable tubercle; eyes slightly convergent below; median segment with a triangular depression at base, with outwardly divergent striæ, and produced into a deep median longitudinal

furrow, the apex of the segment rounded; petiole short, about half the length of thorax, remainder of abdomen about the length of the head and thorax united. Jet-black, sparsely covered with silvery pubescence, which hides the sculpturing of the clypeus and front; wings hyaline, nervures and tegulæ black; second cubital cell much narrowed above, subtriangular.

♂. Similar, the antennæ filiform, and about twice as long as in the female; no tubercle between bases of antennæ; sides of median segment finely obliquely striate; tarsi pale testaceous.

Long. 7-8 millim.

Hab. Kashmir, 5000-8000 feet; three specimens.

Gorytes lenis, sp. n.

Smooth and shining, a few shallow punctures about the region of the ocelli and on the mesonotum; eyes strongly convergent below; antennæ clavate; clypeus much longer than broad, transverse anteriorly, an impressed line from the base of antennæ to the anterior ocellus, the region of the ocelli somewhat raised; pronotum very short; mesonotum with two parallel median longitudinally impressed lines; median segment somewhat steeply sloped, the triangular space at its base smooth and shining; abdomen petiolate, petiole about one third of the total length of the abdomen, not increasing in width at apex, the base of the second segment slightly narrower than the petiole. Black: the clypeus and front as far as the base of the antennæ, the scape, except its extreme base, a line on the pronotum posteriorly, a spot near the tegulæ, the postscutellum, an apical line, emarginate in the centre, on first abdominal segment, a line on the apex of second abdominal segment, widening laterally, and emarginate, sometimes interrupted, in the centre, and the apical margin of the fourth segment narrowly pale yellow; antennæ reddish below; legs red; the anterior and intermediate tibiæ at base, a line on all the tibiæ above, and the tarsi yellow; clypeus with silvery pile; median segment, except the triangular space at base, and abdomen pruinose; apical abdominal segments with short stiff greyish pubescence; wings clear hyaline, nervures black, tegulæ red with a yellow spot.

Long. 12 millim.

Hab. Deesa; not common.

Next to *G. alipes*, from which it may be distinguished by

its longer and more slender petiole, and by all the femora being red.

Stizus conscriptus, sp. n.

♀. Somewhat slenderly built; head with a few shallow punctures; thorax strongly and rugosely punctured; abdomen shining, finely aciculate; clypeus very convex, almost rectangular, emarginate anteriorly, the front above it concave, with a carina between bases of antennæ; eyes convergent below, the distance separating them there being about half the distance between them at vertex; median segment roundly truncate posteriorly; spines of anterior tarsi very long. Black; the mandibles, except their tips, the labrum, clypeus, basal half of the antennæ, legs, and abdomen more or less red; the amount of red in different specimens varies a good deal, and sometimes it is almost entirely confined to the abdomen; a little silvery pile on clypeus and front, and some sparse greyish pubescence on median segment; wings fuscous, the posterior margin of hind wing hyaline, nervures black, tegulæ red.

♂. Similar, the eyes less convergent below; the spines of anterior tarsi short.

Long. 12–16 millim.

Hab. Deesa; fairly common.

Next to *S. vespiformis*, from which it differs in size, and in having the thorax strongly punctured.

Stizus coloratus, sp. n.

♀. Stoutly built; head finely, but not very closely, thorax minutely and closely punctured, the punctures on both very shallow; sides and apex of median segment finely rugose, abdomen finely aciculate; head not so wide as thorax, clypeus slightly emarginate anteriorly; labrum, clypeus, and the middle portion of the front above the latter, as far as the base of antennæ, distinctly convex; the sides of the front from the posterior angles of the clypeus to the base of antennæ concave; median segment short, concavo-truncate posteriorly, the sides rounded. Mandibles light red at base, black at apex; labrum, clypeus, and front yellow, shading off into light red on the cheeks and vertex; two maculæ behind the antennæ, the region of the ocelli, and the posterior portion of the head below the vertex, black; thorax black, the pronotum, sides of the mesonotum, scutellum, and a spot on the mesopleuræ dark red; second and third abdominal segments bright yellow, the remaining segments black; the margins of first to

third segments narrowly black or reddish black; scape of antennæ yellowish, flagellum red; femora, tibiæ, and tarsi of the legs, and sometimes also the coxæ and trochanters, red; the whole insect is more or less covered with short, sparse, greyish pile, which becomes golden on the inside of the posterior tibiæ and tarsi. Wings brownish fuscous, shading off gradually into hyaline at apex and along the posterior margin of hind wing; nervures testaceous, tegulæ red.

♂. Similar; the third abdominal segment with two large yellow maculæ, the apical joint of the antennæ curved.

Long., ♀ 23, ♂ 18–20 millim.

Hab. Mt. Abu; common.

Stizus imperator, sp. n.

♀. Stoutly built; the vertex of head with a few shallow punctures, and the sides and apex of median segment coarsely but shallowly punctured; head narrower than thorax; clypeus rather short, slightly emarginate anteriorly; labrum, clypeus, and the middle portion of the front above the latter as far as the base of the antennæ convex, the sides of the front from the posterior angles of the clypeus to the base of antennæ concave; pronotum very short, median segment short, concavo-truncate posteriorly, the sides rounded. Light red, shining; apex of mandibles and of the third abdominal segment, and the whole of the following segments, black; the tarsi sometimes shaded red and black; a little short white pubescence on the front and median segment, some golden pile on the inside of the posterior tibiæ and tarsi, and a little fuscous pubescence on the apical two abdominal segments. Wings fuscous, the outer margin of both wings narrowly hyaline; nervures dark testaceous, tegulæ red.

♂. Similar, the clypeus comparatively longer, the apex of flagellum of antennæ slightly curved.

Long. 18–20 millim.

Hab. Deesa; rare.

Both this species and the last would come into Bingham's key under a new sub-section as follows:—

A.

d. Wings narrowly hyaline along outer margin.

a'. Second abdominal segment yellow *coloratus*.

b'. Second abdominal segment red *imperator*.

Bembex irritata, sp. n.

♀. Stoutly built; head smooth, clypeus and vertex with

a few minute punctures: thorax minutely, closely, and shallowly punctured, appearing very finely rugose; abdomen finely aciculate; clypeus very convex, almost triangular, its anterior margin very slightly emarginate; front above the clypeus very concave, a slight carina between the bases of antennæ; apical abdominal segment shining, sparsely punctured. Pale orange-red, abdomen above reddish yellow; the apex of the mandibles, the greater part of the central portion of the front from the base of antennæ to the vertex, the vertex narrowly, the posterior portion of the head, except a narrow line along the outer orbits of the eyes, the mesonotum, except its sides and two short and faint longitudinal lines on its disk, the base of the scutellum broadly, the postscutellum, the median segment, except a crescent-shaped mark, interrupted in the centre, and the extreme lateral angles of the segment, the coxæ of all the legs, the apical abdominal segment above, and the greater part of the first, third, and following segments below, black; the margins of the abdominal segments are darker red than the rest of the segments, and there are faint indications of red maculæ on the lighter portion; the flagellum of the antennæ is rufous; clypeus and front covered with silvery, and the thorax with sparse greyish pubescence; wings subfuscous, becoming gradually lighter towards their apical margins, which are hyaline.

♂. Similar; the apical joints of antennæ spined; a very large and prominent median tubercle on the second ventral segment; two conspicuous carinæ meeting apically and forming a wedge-shaped prominence on the sixth ventral segment; labrum, clypeus, and scape of antennæ pale yellow, flagellum of antennæ dark rufo-testaceous; many of the orange-red markings on the thorax obsolete or obsolescent.

Long. 16-17 millim.

Hab. Deesa; rare.

This species would come into Bingham's key in a new section: "B. c. Colours black and light red; abdomen reddish yellow."

Cerceris kashmirensis, sp. n.

♀ ♂. Head, pronotum, mesonotum, and scutellum closely and somewhat finely punctured, the punctures running into striæ; postscutellum impunctate, the enclosed space at the base of median segment varies considerably, in most specimens it has outwardly divergent striæ, in some it is almost entirely smooth; sides of the median segment coarsely rugosely

punctured; abdomen somewhat coarsely punctured, the punctures very deep and distinct in the middle of each segment, less so at the base and apex; head wider than thorax, clypeus slightly concave anteriorly, convex posteriorly, its anterior margin transverse in the centre, emarginate on each side; a short carina between the antennæ, which are set in a hollow; first abdominal segment forming a petiole, which is about as broad as long, second segment about twice as broad, and equal in length to the first; third and fourth somewhat shorter than the second, but equal to it in breadth, fifth rather narrower than the second, third, and fourth; pygidial area finely punctured. Black; the mandibles, except their tips, the clypeus, except its anterior margin narrowly, the front above the base of antennæ, but not including the hollows in which the base of antennæ are placed, or the antennal carina, a spot on each side of the pronotum posteriorly, the tegulæ, postscutellum, a broad band at the base of second abdominal segment, and the apical margins of the third, fourth, and fifth segments, yellow; the third ventral segment has a large, irregular, yellowish macula on each side, and there is a trace of similar markings on the fourth ventral segment; legs with the coxæ almost entirely black, anterior trochanters black, intermediate and posterior yellowish red; femora black at base above, remainder, as well as the whole of the tibiæ and tarsi, yellowish red; scape of antennæ yellow or red below, flagellum red below; wings fusco-hyaline, nervures dark testaceous.

Long. 8-12 millim.

Hab. Kashmir, 5000-6000 feet; fairly common.

Would come into Bingham's key after *C. pentadonta*.

Cerceris dolosa, sp. n.

♀. Head, thorax, and abdomen closely and regularly, but somewhat coarsely punctured, the punctures on clypeus and front being shallower than elsewhere; clypeus excavate anteriorly, its margin subporrect, antennal carina rather long; the triangular space at the base of median segment longitudinally striate at base, obliquely at the sides, its median furrow transversely striate; first abdominal segment slightly longer than broad, less than half the width of second segment, the whole abdomen as long or slightly longer than head and thorax united. Black; the base of the mandibles, a central spot on the clypeus, the sides of the eyes as far as the base of the antennæ, the scape in front, a narrow band on the

apical margin of the third abdominal segment, widened at its extreme lateral margin till it covers the whole of the ventral segment, an apical spot on the fifth segment, and the anterior and intermediate tarsi, pale yellow; flagellum of antennæ beneath rufous; coxæ, trochanters, and basal portion of the femora of all the legs red; the apical portion of the femora blackish, the tibiæ variegated with black, red, and yellow; posterior tarsi with the first joint pale yellow, remainder fuscous; the clypeus and front are covered with a short, stiff, silvery pubescence. Wings hyaline, very slightly infuscated at apex; nervures and tegulæ blackish, the latter with a central yellow spot.

♂. Similar, smaller, the clypeus less excavate anteriorly, and its margin not subporrect; the mandibles entirely black; the yellow apical spot is on the sixth, not the fifth, segment.

Long. 8–11 millim.

Hab. Mt. Abu; common.

Would come into Bingham's key after *C. bifasciata*, under a new sub-section, "Enclosed space at base of median segment longitudinally striate at base, obliquely at sides."

[To be continued.]

BIBLIOGRAPHICAL NOTICE.

Catalogue of the Collection of Palæarctic Butterflies formed by the late John Henry Leech, and presented to the Trustees of the British Museum by his Mother, Mrs. Eliza Leech. By RICHARD SOUTH, F.E.S. London: Printed by Order of the Trustees, 1902. 4to. Pp. vi, 229, Portrait, and 2 Coloured Plates.

THE death of so energetic an entomologist as the late Mr. Leech, at the comparatively early age of thirty-eight years, may well recall the words of Mr. H. T. Stainton respecting Dr. Brackenridge Clemens:—"Little did I think, when I received his first letter in 1857, two years before he became an author, that his career was to be so brilliant and so short." Far more appropriately might similar words be applied to Mr. Leech.

Devoted to the study of entomology from his schoolboy days (largely, we believe, through the encouragement of his mother), and possessed of ample means, and untrammelled by a profession, he devoted his life to travelling, and to the formation, by his own efforts and by those of skilled assistants, and the purchase of large special collections, to the formation of the great collection of

Nurse, C G. 1903. "LXXIV.—New species of Indian Aculeate Hymenoptera." *The Annals and magazine of natural history; zoology, botany, and geology* 11, 511–526. <https://doi.org/10.1080/00222930308678811>.

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