

NOTES AND DESCRIPTIONS OF NORTH AMERICAN
PARASITIC HYMENOPTERA. IV.

BY CHARLES THOMAS BRUES.

A very interesting lot of small Hymenoptera collected by Mr. Charles Schaeffer, of the Museum of the Brooklyn Academy of Arts and Sciences, have furnished most of the material contained in the following pages.

They were collected principally in the Southwest, and were kindly sent to me by Mr. Schaeffer for examination. The types of these species are in the Brooklyn Museum, those of the others in the Milwaukee Public Museum.

FAMILY BETHYLIDÆ.

Epyris Westwood.

A considerable number of species of this large cosmopolitan genus have been described from the United States. Some of them are very closely allied, but the following table will aid in their identification.

Kieffer includes in *Epyris* all species previously put into *Mesitius* by Ashmead and others, restricting *Mesitius* to certain forms not occurring in our fauna. I have followed his arrangement, and our species heretofore placed in this latter genus will be found in the table:

- | | |
|--|------------------------------|
| 1. Scutellum with two distinctly separated foveæ at the base.... | 2 |
| Scutellum with a broad transverse impressed line at the base,
or at least a narrow one connecting two foveæ..... | 16 |
| Scutellum without either groove or foveæ; black, legs and
antennæ brown, wings brownish..... | <i>reticulatus</i> Kieffer. |
| 2. Wings fully developed..... | 3 |
| Wings short, reaching to only a little beyond the base of the
abdomen; legs rufous, metanotum with a faint median
carina | <i>brachypterus</i> Ashmead. |

3. Body entirely black..... 5
 Body pale, or the tip of the abdomen conspicuously red..... 4
4. Brownish-testaceous, head piceous, antennæ and legs honey yellow*flaviventris* Kieffer.
 Only the tip of the abdomen reddish.....*texanus* Ashmead.
5. Metanotum with a median raised longitudinal line or carina which extends to the tip, and often with shorter basal ones on each side..... 6
 Metanotum without a median carina except toward the base, four anterior tibiæ and all tarsi rufous.....*indivisus* Kieffer.
6. Wings hyaline or nearly so..... 7
 Wings distinctly subfuscous..... 15
7. Metanotum with only a single median carina, aside from the lateral raised margins..... 8
 Metanotum with additional longitudinal carinæ on each side of the median one toward the base..... 11
8. Pronotum twice as long as the mesonotum..... 9
 Pronotum at most one-third longer than the mesonotum..... 10
9. Eyes bare, femora black.....*clarimontis* Kieffer.
 Eyes hairy, legs entirely reddish.....*longicollis* Kieffer.
10. Head above finely punctate.....*nudicornis* Kieffer.
 Head above impunctate.....*erigoni* Kieffer.
11. Legs in part black, at least some of the coxæ..... 12
 Legs including coxæ pale rufous or pale honey-yellow, metathorax with about seven raised lines, the lateral ones abbreviated*bifoveolatus* Ashmead.
12. Legs entirely black, the tibiæ and tarsi brownish pubescent.
monticola Ashmead.
 Legs not entirely black..... 13
13. Prothorax twice as long as the mesonotum; legs rufous, coxæ and anterior femora black, middle and posterior femora fuscous*minutus* Ashmead.
 Prothorax at least three times as long as the mesonotum.... 14
14. Head one-half longer than broad, joints 2-5 of the flagellum one half as long as thick.....*californicus* Ashmead.
 Head scarcely longer than wide, joints 2-5 of flagellum quadrate*myrmecophilus* Brues.

15. Mandibles with only a large outer tooth, the inner margin scarcely denticulate, femora distinctly reddish.
nevadensis Ashmead.
 Mandibles with inner denticulations besides the large outer tooth, all the femora black.....*vancouverensis* Ashmead.
16. Wings well-developed 17
 Wings very small, reaching only to the tip of the metathorax; legs including coxæ rufo-ferruginous; head nearly twice as long as wide.....*subapterus* Melander and Brues.
17. Head and thorax metallic green, abdomen black, with ferruginous tip 18
 Body black, sometimes æneous, especially the head..... 19
18. Head and thorax bright golden green, posterior face of metanotum polished, with a median raised line. *fulgens* sp. nov.
 Head and thorax dark metallic green, posterior face of metanotum transversely aciculated.....*nalis* Cresson.
19. Four posterior coxæ and legs pale or rufous..... 20
 All coxæ black..... 24
20. Head black or bluish, not at all metallic..... 21
 Head æneous, abdomen bluish-black, wings fuscous.
æneiceps Ashmead.
21. Head very large, broader than the thorax and strongly punctured*megacephalus* Ashmead.
 Head normal 22
22. Head and thorax bluish, transverse median nervure in wing giving out a spurious vein toward the disk of the wing.
grandis Ashmead.
 Head and thorax black..... 23
23. Mesopleura foveated, mandibles 5-dentate.....*rufipes* Say.
 Mesopleura areolated, mandibles 6-dentate..*columbianus* Ashmead.
24. Metathorax with five raised longitudinal lines..... 25
 Metathorax with only one distinct delicate raised longitudinal line*carbonarius* Ashmead.
25. Wings sub-hyaline, abdomen entirely black..*occidentalis* Ashmead.
 Wings sub-fuscous, abdomen red at the tip.
hæmorrhoidalis Kieffer.*

*This is placed by Kieffer (Archiv f. Zool. I, 528 (1904), in his genus *Rhabdepyris*, characterized by simple tarsal claws, but this species as well as others later placed by him in *Rhabdepyris* have bifid claws. I have therefore included it provisionally in *Epyris*.

Epyris fulgens sp. nov.

Female. Length 7 mm. Head, thorax, and scutellum brilliant metallic green, metanotum purplish; abdomen black, with the tip of the fourth and all the following segments rufo-ferruginous. Legs except anterior coxæ and base of posterior pair ferruginous. Legs and antennæ, except second joint, rufous. Head as long as wide, polished, not shagreened, but covered with very sparse distinct punctures, without any median groove on the front. Eyes bare, separated by one-third their length from the posterior margin of the head. Malar space short. Antennal scape much swollen apically and bent, as long as the three following joints together; pedicel and second flagellar joints of equal length, the first flagellar joint only one-half as long; following gradually increasing, the fifth quadrate. Pronotum punctured like the head, rounded in front and on the sides, without any lateral or anterior carinæ. Mesonotum and scutellum smooth, with scarcely any punctures; the parapsidal furrows complete, but stronger behind; lateral furrows strongly convergent anteriorly, but not extending much more than halfway toward the anterior margin. Scutellum with a narrow straight basal groove connecting the two basal foveæ. Metanotum quadrate, with five longitudinal carinæ that extend to the posterior margin; between them the surface is transversely rugulose and on the sides microscopically transversely aciculated. Sides and posterior edges with a submarginal ridged groove like those between the discal carinæ. Posterior face polished, divided by a median line. Abdomen considerably shorter than the thorax, polished except for delicate scattered punctures on the anterior half of the apical segments. Venter with the posterior parts of the apical segments finely punctured. Legs stout, incrassated, middle and posterior tibiæ strongly spinulose. Tarsal claws with a single tooth within, the anterior metatarsus a little longer than the three following joints. Mesopleuræ polished, with a few punctures, below with a grooved line, and behind with an arcuate elongate fovea; above with a shallow oval fovea. Metapleuræ shagreened. Wings sub-hyaline, the anterior part distinctly infuscated. Stigma quadrate, postmarginal vein wanting, radial one-half as long as the basal, which is a little shorter than the strongly arcuate transverse median.

Described from one female collected by Mr. Schaeffer at Esperanza Ranch, Brownsville, Texas, August 4.

This resembles *E. aurichalceus* Westwood, from the West Indies, but this species as identified by Kieffer (Bull. Soc. Hist. Nat. Metz., XII (2 Ser.) 1905, p. 12), belongs to *Anisepeyris*, in which the pronotum is margined anteriorly. It differs also by the entire lateral carinæ of the metanotum. From the South American *E. planiceps* Fabr., it differs by its lighter color, more evenly darkened wings and purplish metanotum, and from *E. analis* Cress. by the brighter color and different sculpture of the posterior face of the metanotum.

It is the most handsome species yet to be discovered in our fauna.

***Parasierola bicarinata* sp. nov.**

Female. Length 3.5 mm. Shining black; mandibles, antennæ, coxæ and legs yellowish ferruginous. Head as high as broad, finely shagreened and covered with large thimble-like punctures that are separated by about twice their width. Front below with a median carina which reaches up as far as the middle of the eye and is continued onward about the ocelli as a widening polished strip. Eyes oval, bare, separated by one-half their length from the occiput. Head behind sculptured as in front. Projecting lobe of clypeus rounded, honey-yellow; mandibles with four teeth, of which the outer one is considerably the largest. Antennæ reaching to the tip of the pronotum, slender, 13-jointed, attenuated at the tips. Scape rather slender, as long as the first two flagellar joints together; pedicel and first two flagellar joints of about equal length, from thence the joints become shorter and narrower, the apical six joints being moniliform. The basal flagellar joints are scarcely longer than wide. Prothorax about as wide as long, shagreened and punctured like the head. Mesonotum about as long as the pronotum and similarly sculptured, without any trace of furrows except posteriorly very near the lateral margins, which evidently correspond to the outer pair of furrows seen in some genera. Scutellum rounded-triangular, two-thirds as long as the mesonotum, with a broad transverse groove at the base which is widened to form a rather distinct fovea on each side; its posterior edge with a series of about six large punctures. Metathorax quadrate, finely sculptured, with a smooth space medially in front that bears a pair of nearly confluent foveæ and with a carina on each side one-half way to the margin; its posterior face margined above and on the

sides. Abdomen oval, shining black. Legs stout, tarsal claws with a large triangular pointed tooth at the base which is very large and longer than the claw. Wings faintly tinged with fuscous; stigmata piceous; veins fuscous; radial vein reaching nearly half-way from the stigma to the wing tip; basal nervure broken at the middle, the closed discoidal cell as large as the stigma, its cubital side the shortest.

Brownsville, Texas. Mr. Schaeffer.

This form is related to *P. flavicoxis* Kieffer, from Nicaragua, but the mandibles are quadridentate and there is a longitudinal discal carina on each side of the median smooth space on the metanotum. It differs from *P. cellularis* Say, by the much shorter pronotum, as I have identified Say's species. It is evident, however, that what Kieffer redescribed as *cellularis* (Berliner Entom. Zeitschr., L., p. 254 (1905) is still another species different from the one here described.

***Chelogynus schaefferi* sp. nov.**

Female. Length 5 mm. Black; base of antennæ, mandibles and clypeus yellowish; prothorax, four anterior legs and the coxæ and basal parts of the femora of the posterior pair bright ferruginous. Head not quite twice as wide as thick, the vertex distinctly convex. Antennæ 10-jointed, the scape distinctly shorter than the first flagellar joint, which is twice as long as the pedicel, but distinctly shorter than the second and third together. Scape, pedicel and first two flagellar joints ferruginous, following black, the black joints being distinctly thickened. Front and vertex rugulose. Face and clypeus with a fine median keel between the antennæ. Mandibles pale yellowish, with black teeth. Head behind and cheeks rugulose, not at all striate below, palpi black. Prothorax bright ferruginous, smooth and polished, with scattered punctures; as long as the mesonotum and scutellum together. Remainder of thorax black, mesonotum and scutellum shining and with very sparse punctures. Mesonotum with four furrows; scutellum with a transverse crenulate impressed line at its base, and another simple one separating it from postscutellum. Metathorax rugulose, its posterior face nearly smooth above and faintly transversely aciculate below. Pleuræ rugulose. Abdomen entirely shining bluish black. Chela of anterior tarsus reaching nearly to the base of the second tarsal joint, whitish, dark at the tip, somewhat curved, especially at

the base. Posterior legs, except coxæ and base of femora, black, the tarsal joints each tipped with yellowish. Body everywhere except the flagellum of the antennæ conspicuously whitish pubescent. Wings with the usual two fuscous bands, which are very strong. Stigma lanceolate, pale at the base and piceous at the tip. Veins fuscous, except the submarginal, median and anal veins, which are pale yellow.

One female from the Huachuca Mountains, Arizona, collected by Mr. Schaeffer.

This species resembles *C. atriceps* Brues, a species occurring in the Northeastern United States, but the typical form differs conspicuously by the black metathorax, scutellum and mesothorax. The head behind is also much more coarsely sculptured, while the punctures of the prothorax are sparse. The first flagellar joint is shorter, being but little longer than the scape, while in *atriceps* it is nearly twice the length of the scape.

Var. a. Colored like *C. atriceps*, with the entire thorax reddish, but having the structural characters of the type. One female from Brownsville, Texas.

FAMILY SCELIONIDÆ.

Hoplogryon grandis sp. nov.

Female. Length 2 mm. Brownish-yellow; head, abdomen and antennal club black. Head two and one-half times as wide as thick, shining black; front smooth, with a median line extending from the anterior ocellus to the antennæ, the anterior orbits, cheeks and face below strongly vertically striated. Vertex irregularly rugose. Mandibles strongly curved, yellow, with two long, equal brown teeth. Mesonotum and scutellum very coarsely and almost confluent punctate; no parapsidal furrows; ferruginous, with a large orbicular spot which reaches nearly to the scutellum. Scutellum black, postscutellum ferruginous, with a long sharp spine. Metathorax ferruginous, with the lateral angles very acutely produced to form long spine-like teeth; its posterior face irregularly rugulose, truncate or slightly concave. Abdomen ovate, convex; shining black, the first segment brown, as long as broad at the tip and roughly striated; second segment sculp-

tered like the first, two and one-half times as wide at the base as it is long. Third segment occupying two-thirds of the remaining surface, smooth and shining, with a few scattered punctures. Legs, including coxæ, yellow, the pleura with a dark spot just above the posterior coxæ. Wings very short, ciliated, reaching only to the tip of the first abdominal segment. Antennæ 12-jointed, bright yellow, with the apical eight joints black. Scape slender, three-fifths the length of the flagellum; first and second flagellar joints subequal, each twice as long as thick and considerably longer and thicker than the pedicel; third and fourth short, moniliform or quadrate, forming the base of an unusually slender club: seventh flagellar joint the shortest, twice as broad as long and twice as thick as the second flagellar joint.

One specimen, Cold Spring Harbor, Long Island, New York.

This is a large and prettily marked species, distinguished at once by its large size, vestigial wings, and acutely toothed lateral metathoracic angles.

FAMILY EURYTOMIDÆ.

Chryseida inopinata sp. nov.

Female. Length 5.5 mm. Metallic green, the abdomen more or less blue. Femora reddish, tarsi whitish; antennæ ferruginous or rufous. Head two and one-half times as wide as thick, coarsely confluent punctate. Antennæ inserted at the middle of the face; their cavity transversely rugose, narrowed above and enclosing the anterior ocellus; lateral ocelli set in large foveæ near the eyes. The punctures of the row along the anterior margin of the eyes are elongated, giving the groove a transversely rugose sculpture; medially the groove is margined by a very sharp carina. Cheeks margined behind; mandibles rufous. Eyes oval, reddish, microscopically pubescent; a little longer than the malar space. Antennæ with only nine visible joints. Scape slender, but little longer than the first flagellar joint. Pedicel very small, rounded, only one visible ring-joint. Flagellum slightly clavate apically, the first joint one-half longer than the second which is two times as long as thick; third, fourth and fifth smaller; sixth oval, one-third longer than the fifth. Prothorax nearly three times as wide as long, sculptured like the head, as are also the mesonotum and scutellum,

the punctation becoming coarser posteriorly. Mesonotum scarcely longer than the pronotum; scutellum half longer than the mesonotum. Metathorax excavated behind, the cavity coppery, faintly aciculated medially and punctate around the sides. Metapleuræ purplish blue, coarsely punctate. Abdomen ovate, more or less compressed especially at the tip; sixth segment carinate above; fourth segment longest. All coxæ green; femora bluish, the hind pair reddish; base and tips of tibiæ and tarsi except last joint whitish, the tibiæ medially rufous. The legs are all rather stout, but the femora are not particularly thickened. The body is more or less sparsely whitish hairy, and the fourth, fifth and sixth segments each bear a well marked spot of white pubescence on each side. Wings with a brown cloud that extends entirely across the wing, although it is stronger in front where it extends apically a short distance along the costa beyond the postmarginal vein. Marginal vein four or five times as long as thick; postmarginal a trifle longer and the stigmal two-thirds as long, knobbed.

One female from Brownsville, Texas. Mr. Schaeffer.

This is the first representative of this handsome and attractive genus to be found in North America, other species being known only from Tropical South America and the Island of Grenada, in the Caribbean Sea.

The occurrence of this, together with the other Chalcidid genera *Kapala*, *Schizaspidia* and *Chalcedectes*, is extremely interesting and serves to emphasize the truly neotropical character of the fauna in this part of Texas. All these genera occur commonly in Brazil, where they reach their highest development. *Kapala* is also represented by a species from southern Florida, but none of the others have hitherto been found within our faunal limits.

FAMILY EUCHARIDÆ.

Schizaspidia septentrionalis sp. nov.

Female. Length 7 mm. Black, marked with luteous or testaceous; legs pale testaceous. Head black, twice as wide as high, coarsely striate, the striæ vertical on the sides of the face above, but curving in

transversely to the median line below the antennæ. Lower half of the sides of the face cross-striated. Clypeus smooth, occiput cheeks and malar space finely striated. Malar space distinctly longer than the eye-height. Mandibles falcate; testaceous, with long sharp tips and no teeth within. Antennæ 11-jointed, reaching as far as the tip of the scutellum; scape and ring-joint yellow; flagellum black, except the apical four joints, which are fuscous. First flagellar joint three times as long as the scape and more than twice as long as the second; following joints growing shorter, the seventh twice as long as thick. Prothorax entirely pale testaceous. Mesonotum pale testaceous, with a large median horseshoe-shaped spot, a large oval spot on each of the parapsides, basal half of axillæ, narrowed medially and connected with a median scutellar stripe that includes the scutellar teeth, also black. The entire surface of the thorax is coarsely reticulately punctate with the sutures crenulate. Scutellum triangular, with two blunt divergent teeth at the apex; it is as long as the mesonotum medially. Metathorax deeply constricted at the base and bilobate behind, but without teeth or sharp protuberances; more or less black on the sides and with a dark line above. Propleuræ entirely pale testaceous; mesopleuræ with three confluent testaceous spots above, the second of which extends farther down. Legs and abdominal petiole pale testaceous, slender, the latter as long as the posterior femora. Coxæ blackened at the extreme base, and last tarsal joint piceous. Abdomen as high as the thorax and one-half as long, squarely truncate at the base; polished black, the second segment concealing all the following ones. It is black, with a large honey-yellow crescentic mark on each side. Ovipositor very minute. Wings hyaline, tinged with yellow; marginal vein long, two-thirds the length of the submarginal; stigmal quadrate, sessile; postmarginal very short.

One specimen from the Huachuca Mountains, Arizona.

This is the first member of this genus to be discovered in North America although two species are known from Brazil.

Kapala furcata Fabr.

Mr. Schaeffer sent me a number of specimens of this beautiful Eucharid from Brownsville, Texas. The species occurs in Brazil, and has also been found in Grenada, but I believe that this is the first time that it has been recorded from so far north as the United

States. Quite recently Kieffer* has redescribed the species, but he does not mention any locality.

The Brownsville specimens have the scutellar processes more approximated at the tips, but otherwise they agree well with Kieffer's description, and also with Lepeletier's figure, published in his *Histoire Naturelle des Insectes Hyménoptères* (Pl. 38, fig. 5. The species is also figured in the *Biologia* by Cameron.†

FAMILY CLEONYMIDÆ.

Chalcedectes texanus sp. nov.

Male. Length 7 mm. Bluish-metallic, with reddish cupreous reflections. Abdomen aeneous, hind femora more or less purplish; base of all tarsi pale. Head very strongly transverse, four times as wide as thick; seen from the front as wide as high; its color greenish, the antennal depression purple; surface whitish-hairy and closely, coarsely punctate, but not confluent so. Occiput but faintly punctulate; mandibles piceous, tridentate. Palpi piceous, the apical joint of the maxillary pair long and suddenly swollen at the base, apical joint of the labial pair triangular and flattened. Antennæ black, the flagellum one-half longer than the scape; first flagellar joint equal to the ring-joint and pedicel together; second, third and fourth decreasing; fifth and sixth quadrate; seventh transverse; eighth obliquely truncate. Malar space with a furrow, its height two-thirds the length of the eye. Thorax somewhat more coarsely punctured than the head; middle lobe and scutellum greenish-violet, the parapsides behind blue; prothorax blue in front and greenish on the sides. Metanotum reticulate medially and smooth on the sides, where there is a large distinct patch of white pubescence. Pleuræ variegated in color, coarsely punctate except for the smooth posterior side of the mesopleural and the finely arcuately aciculated propleural furrow. Abdomen narrowly ovate, shining greenish-black; margin of the first segment notched medially, the others entire; second, third and fourth segments short, the fifth long. Legs cupreous, the reddish tint very pronounced. Posterior femora twice as long as thick, with four long teeth below, and another

*Berliner Entom. Zeitschr. LXIX, p. 243 (1904).

†Biol. Centr.-Amer. Hymenoptera, Pl. 5, fig. 17.

broad quadridentate one near the apex, the apical denticles of which are smaller. Hind tibiae reddish at the base; first joint of all the tarsi whitish, the second brown and the rest piceus. Wings hyaline, the marginal vein two-thirds as long as the submarginal and four times as long as the stigmal. Postmarginal fully as long as the marginal.

Described from one specimen collected by Mr. Schaeffer at Brownsville, Texas.

This is the first species of *Chalcedectes* to be discovered outside of the South American fauna.

There is also a male of a second species from Brownsville, but it is too poorly preserved for description.

FAMILY ENCYRTIDÆ.

Anastatus laticeps sp. nov.

Female. Length 4.5 mm. Rufo-ferruginous varied with black. Entire body clothed with sparse glistening pubescence. Head flat, nearly four times as wide as thick; viewed from in front the eyes reach distinctly below the middle, being two-thirds as long as the head-height; above the eyes are close together so that the lateral ocelli are nearer to the eye-margin than to the median ocellus. Cheeks long, malar furrow distinct, eyes distinctly hairy. Antennae long and slender, the scape pale rufous, black at tip and reaching to the anterior ocellus. Flagellum imperceptibly thickened apically, black, twice as long as the scape; pedicel and first flagellar joint nearly equal; second a little longer, following decreasing in length until the ones near the tip are nearly quadrate. Surface of head microscopically rugulose, with a metallic reflection in certain lights. Front very slightly and broadly excavated. Antennae inserted just below the base of the eyes. Palpi blackish toward the tip, the apical joint slender, rounded at the tip. Prothorax very short. Mesonotum with the parapsidal depressions meeting behind the middle and continuing as a median depression to the hind margin; the elevations sharp on the posterior third, then becoming very weak and broadly rounded. Scutellum very strongly convex, almost pyramidal anteriorly, with a wide base on the mesonotum, clothed with a few scattered black hairs and bearing

a median row of more or less bristle-like ones anteriorly. Metathorax exceedingly short. The thorax is brownish-yellow, the mesonotum with a greenish reflection that conceals the brown; metathorax brown and mesopleura with a green stripe. Abdomen as long as the head and thorax, greenish-black, the venter brownish at the base. Posterior margins of all the segments entire, the basal segments smooth and shining, but the apical ones becoming very distinctly punctate. Venter smooth. Ovipositor pale yellow, distinctly longer than the abdomen. Legs brown, middle tibiæ, posterior femora and tibiæ and metatarsi greenish-piceous; posterior coxæ green black. The posterior tibiæ are distinctly compressed, with a whitish line externally; middle tarsi except the last joint and the hind tarsi, except the first and last joints whitish. Wings hyaline, with a dark gray transverse band embracing the marginal and stigmal veins. Marginal vein as long as the submarginal and about four times as long as the short, very oblique and slightly knobbed stigmal. Postmarginal a little shorter than the stigmal.

Described from one female from Esperanza Ranch, Brownsville, Texas.

This is a close relative of the following species.

Anastatus longiceps sp. nov.

Female. Length 4.25 mm. Ovipositor 1 mm. Rufo-ferruginous; abdomen black toward the tip. Head transverse, seen from above three times as wide as thick and distinctly longer than high. The eyes do not reach below the middle of the head so that the malar space is as long as the eye. Eyes widely separated above; the lateral ocelli as far from the eye-margin as from the anterior ocellus. Eyes faintly hairy. Head microscopically rugulose, the front scarcely impressed. Antennæ inserted considerably below the level of the lower eye-margin. Antennal scape reaching to the anterior ocellus, slender, rufous; flagellum black, scarcely thickened apically. Pedicel and first flagellar joint of equal length, the following joints shorter, the subapical ones, however, longer than wide. Malar furrow distinct. Palpi black toward the tip, the apical joint swollen and obliquely truncate at the apex. Mesonotum short, the furrows very distinct anteriorly, forming a wide median depression behind the middle. Parapsidal elevations sharp posteriorly, rising to the posterior third, then suddenly declivous and rounding off anteriorly. Scutellum with a wide base against the

mesonotum; slightly convex, sparsely covered with black hairs, but without a median row. Metathorax one-half as long as the scutellum. The thorax is entirely rufo-ferruginous except for greenish reflections on the mesonotum behind. Abdomen almost as long as the head and thorax, shining basally and finely but closely punctate apically; first three segments pale brown, with greenish reflections, apical segments greenish black. Ovipositor pale, one-half as long as the abdomen. Legs pale rufous, the middle tarsi brown, and the entire hind legs piceous brown with greenish reflections. Hind tibiae not at all compressed. Wings hyaline, with a broad brown cross-band which includes the marginal and stigmal veins. Marginal vein as long as the submarginal and five times as long as the stigmal, which is indistinctly knobbed.

One female from Brownsville, Texas. April.

This species is superficially extremely similar to the preceding, both in color and wing pattern. It is readily distinguished, however, by the shorter, more widely separated eyes, flat scutellum and non-compressed hind tibiae.

FAMILY MYMARIDÆ.

Gonatocerus americanus sp. nov.

Female. Length .75 mm. Shining black, the anterior knees and all tarsi light yellowish; scape and pedicel of antennæ more or less pale. Head large and flattened, very wide, nearly one-half wider than the thorax. Antennæ 11-jointed, slender, especially toward the base of the flagellum. Scape extending to the vertex, about five times as long as thick; pedicel oval, as stout as the scape. First three flagellar joints very small, together only a little longer than the pedicel; fourth longer but slender; fifth and sixth stouter, about equal; seventh and eighth longer; last joint nearly as long as the four preceding taken together, but no thicker. Mouthparts piceous brown. Thorax smooth and shining, the scutellum distinctly longer but considerably narrower than the mesonotum. Metathorax very short, depressed. Abdomen small, as long as the thorax, but only about one-half as wide as long; somewhat concave and compressed above. Legs slender, the tarsi five-jointed. Wings hyaline, broad, being only three times as long as

broad. Marginal vein short, extending to one-third the length of the wing. Wings with short cilia, the longest ones less than one-third the greatest breadth of the wing.

Milwaukee, Wisconsin, June 8, 1906. This seems to be the first species of *Gonatocerus* to be described from this country, although it is probable that a number occur here.

FAMILY BRACONIDÆ.

(?) *Pambolus dispar* sp. nov.

Female. Length 3 mm. Subapterous. Rufo-ferruginous. abdomen varied with darker and pale spots. Legs testaceous. Head rufous, distinctly wider than long, the temples full, but strongly rounded and narrowed behind; its surface smooth and shining. Posterior margin of the head very distinct. Seen from the side the head is as high as thick. Antennæ 18-jointed, ferruginous, a little shorter than the body. First flagellar joint as long as the scape, second and third shorter, the second two-thirds as long as the first. Apical four or five joints submoniliform. Thorax slender, narrower than the head and three and one-half times as long as wide; ferruginous, the small wing pads reaching barely beyond the tip of the metathorax. They are laceolate in shape and clothed with long whitish hairs. Pro- and mesothorax shining, the former with some coarse punctate sculpture laterally behind, and the latter with irregularly marked parapsidal furrows that coalesce before the scutellum. Scutellum triangular, with a deep broad fovea at its base, divided by several raised cross-lines. Metathorax cylindrical, truncate, its surface roughly reticulate. Abdomen broad, oval, as long as the head and thorax together. First segment longer than wide, and two times as wide at the tip as at the base, laterally with strong carinæ, its surface rugulose, with indications of two weaker central longitudinal carinæ that unite before the tip of the segment. Second segment large, as long as wide, shining and microscopically punctulate; third to sixth segments together as long as the second, indistinctly differentiated. Basal segment ferruginous, the rest piceous; third segment with an indistinct broad pale band near the middle, which is repeated less distinctly on the third, fourth and fifth. Ovipositor brownish-yellow, shorter than the first abdominal segment. Legs slender, testaceous, hairy.

Two females from Cold Spring Harbor, Long Island, New York.

This little subapterous species might perhaps be referred to Ashmead's genus *Pambolidea*, the type of which has not been described, so far as I can ascertain. However, the ovipositor is short and the second abdominal segment much smaller. The more or less distinctly differentiated abdominal segments separate it from the more typical species of *Pambolus*.

Ecphylus texanus sp. nov.

Female. Length 3.5 mm. Piceous black; head rufous; antennæ brownish-yellow at the base, piceous apically. Palpi and legs, except four posterior femora, pale testaceous; tip of abdomen, ovipositor and its sheaths except at apex rufous or brown. Head polished behind, in front microscopically rugulose, with a median raised polished stripe below the antennæ. Cheeks as wide as the eyes. Antennæ slender, 21-jointed, extending to beyond the middle of the abdomen; first flagellar joint longest, as long as the width of the eye, following subequal but growing shorter, the last few only a little more than half as long as the first. Middle lobe of mesonotum transversely rugulose, impressed in front and depressed behind; lateral lobes shining, elevated posteriorly; scutellum triangular, with a transverse fovea crossed by numerous carinæ at its base. Metanotum finely rugulose, with a median carina and two less clearly defined lateral carinæ on each side. Abdomen one-half longer than the head and thorax together, sessile, spatulate; first segment longitudinally striated, twice as wide at the tip as at the base; following smooth and highly polished. Ovipositor one-fourth shorter than the body, but its sheaths are fully as long as the body. Wings hyaline, stigma and veins fuscous. Second transverse cubitus entirely wanting and the cubitus beyond the first cubital cell is very indistinct. Transverse median nervure in front wings wanting.

One female from Esperanza Ranch, Brownsville, Texas.

This is quite closely related to *E. hypotheremi*, Ashmead, but differs by its much greater size, pale color and longer ovipositor.

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