

**Contributions to the Descriptive and Systematic
Coleopterology of North America.**

PART I.

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THE following essay is given to the public, with the view of contributing another mite to the written descriptions of our American fauna, as well as of rendering it possible to identify for correspondents many distinct species, at present scattered unnamed through our type collections. Many of them belong to genera, to the apparent confusion of which, it may be regretted by many that any addition has been made, and in these cases I have made the descriptions as full and exact as it lay in my power. If they ever serve to identify the species, they may be considered to have done their duty.

These remarks apply particularly to the genus *Harpalus*, in which the green metallic species are separated by the number and arrangement of the setigerous punctures on the epistoma. Whether these species are valid or not, time and experience can alone demonstrate, but it must be affirmed here as a conviction that much of the trouble, confusion, and consequent neglect of the species in this genus, is the result of a careless study and separation of them, and that there is much less variation in the individuals of species, which have been thoroughly investigated and minutely defined, than is commonly supposed.

This is certainly the cause of the trouble in the case of *H. viridieneus*, which will be seen later to have been made up, in most cabinets, of individuals belonging to five distinctly characterized species. Knowing these species to be distinct, it is very easy afterwards to see many differences, which were overlooked while they remained mixed up in confusion; and this, for a reason analogous to that which renders it much easier for an astronomer to detect a faint star or satellite of a planet, when once it has been discovered, and its

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exact position pointed out; or, in other words, when he is told where to look for it. These differences relate more particularly to the shape and relative size of the head, pronotum, and elytra, as well as to minor characters of the under surface.

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PTEROSTICHUS.

P. zephyrus n. sp.—Form rather slender. Upper surface piceous-black, elytra somewhat paler, under surface dark fuscous, legs same, posterior edges of the ventral segments very pale testaceous. Head moderate, as long as width across the eyes; epistoma broadly, evenly, and feebly emarginate anteriorly; labrum slightly more than twice as wide as long, almost transversely truncate anteriorly, angles acute: eyes flat, oval, nearly entirely visible from above, very near the posterior angles; posterior supra-orbital seta slightly behind the eye; antennae as long as the head and prothorax together, dark rufo-testaceous, paler toward tip, second joint scarcely one-half as long as the third; mentum tooth rather small, deeply and triangularly incised at tip, and deeply excavated on the exposed surface; third joint of labial palpi slightly shorter than the second; between the gular sutures there is a short, narrow, regularly impressed line. Prothorax as broad as long, rather strongly constricted behind; disk strongly depressed; median line distinctly visible throughout, lateral basal depressions very well marked; surface highly polished throughout; sides strongly arcuate anteriorly and sinuate posteriorly: anterior angles somewhat acute, posterior acute and projecting; base broadly and somewhat angularly emarginate. Scutellum small and triangular. Elytra at base as wide as the prothorax, very slightly more than twice as long as the latter, widest at two-thirds the length posteriorly; sides rather strongly arcuate; disk moderately convex, striae deeply impressed, interspaces rather strongly convex. Last ventral segment strongly carinated in the middle toward the apex. Anterior tibiae rufous toward the tip. Length 12.0 mm.

The exact locality of this species is not known; the single representative, which is in my cabinet, is a male, and was probably collected in the extreme Southwest.

The very marked and narrow cariniform elevation of the last ventral segment renders it easily recognizable.

P. osculans n. sp.—Form slender. Surface above black, beneath deep piceous-black, legs slightly paler toward the tips of the tarsi. Head moderate, longer than width across the eyes; labrum slightly more than twice as wide as long, sides nearly straight, broadly and very feebly emarginate anteriorly, angles slightly rounded; eyes situated very near the posterior angles, rather convex; posterior supra-orbital seta on a line with the posterior edge of the eye; antennae as long as the head and prothorax together, dark fuscous, paler toward the tip, pubescence fulvo-testaceous, second joint more than

one-half as long as the third; emargination of mentum broadly trapezoidal, tooth rather small, much broader than long, equilatero-triangularly incised at apex, and broadly excavated on the exposed surface; longitudinal line between the gular sutures deeply impressed; mandibles black throughout, tips acute. Prothorax slightly narrower than long; disk rather convex, median line deeply impressed and terminating at short distances from the base and apex; lateral basal lines broadly and deeply impressed; apex almost transverse, base very broadly and feebly emarginate; sides feebly convergent behind, nearly evenly arcuate; anterior and posterior angles sub-equally and evenly rounded. Scutellum small and acutely triangular. Elytra at base slightly wider than the prothorax, widest at mid-section, nearly two and one-half times as long as the pronotum; together rather acutely rounded behind; sides evenly and rather strongly arcuate; disk moderately convex, striae deeply impressed, interspaces convex. Legs long and slender. Posterior edges of the ventral segments somewhat paler; the tip of the last segment is broadly and deeply impressed in the male. Length 11.0-12.5 mm.

The two specimens of this species, a male and a female, which are before me, are from the same lot as the preceding species, and are probably natives of the same region, or the Northern part of Mexico.

Instead of one posterior supra-orbital seta, which is the condition in the male, the female has, abnormally, three setae very closely approximate, and in the same longitudinal line. The deep, transverse, and somewhat rectangular impression at the tip of the last ventral segment in the male is very distinct.

AMARA.

A. apachensis n. sp.—Form rather slender, oval. Head moderate, distinctly broader across the eyes than long; surface convex and highly polished; eyes small, very convex, and prominent; epistoma deeply and transversely impressed just behind the anterior emargination; labrum one-half as wide again as long, broadly and feebly emarginate anteriorly, sides nearly straight and moderately convergent; antennae nearly equal in length to the head and prothorax together, seta of first joint very long and thick; last joint of maxillary palpi one-half longer than the penultimate, rather slender, acuminate, compressed toward the tip, deeply and longitudinally excavated posteriorly; mentum tooth strong, broader than long, bifid, incisure in the form of an equilateral triangle, tips rounded, dental setae very long; a seta in the middle of each end of the sub-mentum is also very well developed. Prothorax three-fourths as wide again as long, apex slightly shorter than the base, and very feebly emarginate; sides almost evenly and rather feebly arcuate; disk moderately convex, highly polished, median line distinct, terminating at equal and very short distances from the base and apex; basal punctures very feeble, coarse, variform, and irregularly distributed in a narrow transverse area along the base; there are also at the base two rounded impressions on each side of the median line and at equal distances

from the posterior margin. Elytra at base as wide as the prothorax; sides very feebly arcuate; together rather acutely rounded behind; disk very convex, highly polished, striae very feeble, interspaces flat; suture twice as long as the head and prothorax together. Last abdominal segment having two short, closely approximate setae on each side near the apex. Color of body throughout dark castaneous, legs and oral organs paler. Length, 6.7 mm. Male.

Arizona (Morrison).⁴

This species appears to be very distinct, and is much smaller and more slender, as well as more convex than either *californica* or *remotestriata*. The striae of the elytra are scarcely visible except with a good lens, and are indistinctly punctulate; the first joint of the posterior tarsi is very slightly longer than the last.

A. marylandica n. sp.—Form rather broadly elliptical, sides very feebly arcuate. Head moderate, broader than long; eyes small; sides nearly parallel and feebly arcuate behind the eyes, very rapidly convergent before; surface moderately convex and shining; supra-orbital setae rather approximate and symmetrically placed in reference to the longitudinal limits of the eye; antennae short, not as long as the width of prothorax, first three joints rufous, remainder dark castaneous; emargination of mentum trapezoidal, tooth very short and broad, distinctly sinuate anteriorly, dental setae very close and long, at each extremity of the gular support of the mentum there are two closely approximate and rather long setae; oral organs pale testaceous; maxillary palpi very stout, castaneous. Prothorax one-third longer than the head, distinctly broader behind; apex broadly and feebly emarginate, base transverse; basal angles acute; disk polished, median line feeble; border narrow, broken for a short distance in the middle of the base; near each basal angle, there is a small, impressed, punctiform pit; between this and the median line a small, irregular, depressed area, which is very sparingly punctate; just within the raised lateral margin, there is a succession of very fine punctures. Elytra at base as wide as the pronotum; sides nearly parallel, very feebly arcuate; together nearly one-half longer than wide, rather acutely rounded behind; disk polished, extremely finely reticulated, distinctly striate, striae strongly punctate, interspaces nearly flat, just exterior to the eighth stria there is a row of very distinct punctures near the humeri, and a much longer one near the tips. Scutellum much broader than long, acute behind, sides arcuate. Last abdominal segment bearing on each side near the apex two long stout setae. Terminal spurs of anterior tibiae very strongly developed. Color of body dark piecous-black, having on the upper surface an aeneous metallic lustre; legs dark rufo-testaceous. Length 7.8 mm. ♂.

Maryland, banks of the Potomac River, below Washington; one specimen.

This species is remarkable for its very short pronotum, that of the type being only 1.8 mm. in length, while the elytra are 4.9 mm., and

it is nearly two-thirds wider than long. The sides of the prothorax are more convex anteriorly than posteriorly, where they are nearly parallel and straight.

A. pallida n. sp.—Form broadly oval, sides parallel. Head small, sub-triangular; eyes small, convex, and salient; surface convex and highly polished; labrum prominent, feebly and narrowly sinuate anteriorly, surface minutely reticulated; antennae very slender, coarsely setose, as long as the base of the pronotum; mentum tooth narrower than long, feebly bifid at the tip, prominent; mandibles very finely acuminate at tip, toward which they are blackish in color. Prothorax at apex as wide as the head, scarcely one-third wider than long, more than one-third wider at base than at apex; sides feebly arcuate, slightly more so anteriorly than posteriorly; disk very convex, median line very fine and distinct, the two basal impressions at each side are rather feeble, irregularly and coarsely puctured, punctures deeply impressed and isolated; surface highly polished. Scutellum transverse, triangular, sides straight. Elytra at base as wide as the pronotum; sides parallel and very feebly arcuate; disk very convex, one-half longer than wide, and one-third longer than the head and prothorax together; striae deep, punctate, interspaces very convex and highly polished; elytra together broadly rounded behind; there is a row of setae near the humeral angles and a continuation of the same, beginning at a distance from those angles equal to two-thirds the entire elytral length. Legs moderate, fourth joint of anterior tarsi very small, not more than one-half as long as the third. Extremity of last ventral segment bearing one seta on each side near the immediate vertex. The color of the entire insect is a pale piceo-testaceous, becoming rather rufo-testaceous toward the front; femora still paler. Length 5.3 mm., breadth 2.5 mm. ♂.

Willeys Point, New York Harbor; one specimen.

The type of this species has the head strongly deflexed. The very pale color may be due to immaturity; the eyes and portions of the mandibles are, however, deeply colored. The species is of a much broader and more convex form than any other which can be considered nearly related to it, and the elytra are proportionally much shorter.

A. ferruginea n. sp.—Form moderately robust, sides nearly parallel. Color of entire body rather dark reddish-ferruginous. Head small, slightly wider across the eyes than long; eyes small. Prothorax at base twice as wide as the head, and one-third wider than long; base much longer than the apex, both nearly transverse and straight; sides almost evenly convex, border narrow, beginning slightly behind the anterior angles and continuing with the same width along the base for a short distance, where it becomes interrupted and lost; median line distinct and attaining the base; disk moderately convex, highly polished, without any traces of punctuation at the base, near the basal angles there is a small, round, deeply impressed, punctiform pit. Scutellum strongly transverse, short, triangular, sides

straight. Elytra at base as wide as the pronotum; sides parallel and very feebly convex; together broadly and abruptly rounded behind, scarcely one-half as long again as wide: disk convex, highly polished, striae strong, punctured, interspaces strongly convex. Last ventral segment bearing but one seta on each side near the immediate vertex. Mesosternum very broad between the coxae, where it is emarginate behind, emargination as wide as the lateral lobes, very deep, broadly rounded at the bottom. Under surface of anterior tarsi having two series of long, cinereous, extremely dense pubescence. The gula is very convex longitudinally. Length 6.5 mm. ♂.

Atlantic City, New Jersey; one specimen.

The type is greatly damaged about the head, the oral organs being entirely wanting; there is enough remaining, however, to show that the species is evidently distinct; it bears a somewhat remote resemblance to *A. rubrica*, but in that species the pronotum is distinctly punctate at the base. The very dense pubescence on the under surface of the anterior tarsi reminds us in a manner of *Anisodactylus*, although in that genus there is not a medial division or gap.

ANISODACTYLUS.

A. arizonæ n. sp.—Form nearly as in *californicus*. Upper surface deep blue-black, under surface dark fuscous, femora black, tibiae very slightly paler, tarsi fuscous. Head large, slightly longer than width across the eyes; eyes small, rather feebly convex; labrum not twice as wide as long, feebly and narrowly sinuate anteriorly, angles broadly rounded; antennae equal in length to width of prothorax, robust, dark castaneous; emargination of mentum parabolic, tooth in the form of a short, wide, and acute cusp, dental setae very closely approximate; mandibles long, strongly arcuate at tip, acute, piceous-black. Prothorax distinctly longer than the head, one-third wider than long; disk moderately and evenly convex, highly polished throughout without any trace of punctation; median line almost obliterated, lateral impressions somewhat stronger; sides feebly convergent behind, strongly arcuate anteriorly, feebly sinuate posteriorly; anterior angles narrowly rounded, posterior acute and very slightly produced; surface having a deep, purplish-blue reflection. Scutellum small and acutely triangular. Elytra at base very slightly wider than the prothorax, two and two-thirds times as long as the latter; sides nearly parallel and rather feebly arcuate; disk moderately convex, widest at mid-section, striae impressed and distinct, interspaces very feebly convex and highly polished. Second and third joints of the anterior tarsi much broader than the first: first, second, and third joints of the posterior tarsi decreasing uniformly and rather rapidly in length, first not as long as the next two together. Length 13.5 mm.

Arizona; one specimen, male.

This very fine species is one of the largest of the genus within our territory; it somewhat resembles *californicus* in form, but differs from

that species in many important characters, among others in the dental setae of the mentum, which are very long, approximate, and close to the tooth in this species, while in *californicus* they are distant from the bottom of the emargination and are widely separated. The prothorax in the present species is perfectly smooth and not punctate as in the other; the surface of the elytra also, in *arizonæ*, is highly polished, while in *californicus* it is rendered opaque by a minute and regular system of granulation.

I have before me another male, which must be referred to this species; the prothorax, although not punctate, is transversely creased, as though it had been crumpled while in a plastic state; the right side of the pronotum is deformed, and as there are certain other evidences pointing to its probably abnormal character, I will not describe it; the posterior angles of the prothorax are narrowly rounded and not produced.

AMERINUS n. gen.

This genus is founded upon Dr. LeConte's *Bradycellus linearis*, a small elongated insect of very singular form. The principal characters are as follows:—

Emargination of mentum very small, tooth very long and slender, projecting anteriorly slightly beyond the lateral cusps of the mentum. Second joint of labial palpi as long as the third, strongly bent, bisetose; second joint of maxillary palpi very robust, strongly flattened, somewhat lunate, third joint scarcely more than one-half as long as the fourth. Penultimate joints of the antennae not appreciably flattened. Labrum transversely truncate anteriorly, feebly bisinuate, angles right and very pronounced, lateral setae nearly twice as long as the intermediate ones. Last joint of anterior tarsi very long, having a very long seta at each side of its upper surface, three penultimate joints wider than long, fourth joint rudimentarily bilobed. Supra-orbital setae single, situated opposite the posterior limit of the eye; basal mandibular setae wanting; eyes small, wider than long. Pronotum much longer than wide, median line extremely strong and deep, basal impressions very deep, punctate; elytra more than twice as long as wide.

The appearance of the insect is unlike that of *Bradycellus*, being very long and slender; the pronotum is squarely truncate behind, with the basal angles very slightly obtuse, and not at all rounded. There is but one species described, viz.:—

A. linearis (Lec.)—Smith. Misc. Coll., 1863-66, vol. vi. p. 16. The types in my cabinet were taken in the District of Columbia; the length is 4.5 mill.

BRADYCELLUS.

B. lucidus n. sp.—Form rather elongated, moderately convex; sides nearly parallel; glabrous above. Color above deep piceous-black, beneath black, legs fulvo-testaceous, antennae and oral organs reddish-piceous. Head moderate, slender, longer than wide, very convex; supra-orbital setae stout, very slightly behind the middle of the eye; eyes almost exactly circular, moderately convex; antennae as long as head and prothorax together, reddish-testaceous throughout, last seven joints compressed, third joint more than twice as long as the second; emargination of mentum broad, tooth well-developed, very slightly rounded at the tip; dental setae approximate, long; on the sub-mentum, at a distance from each extremity equal to one-fourth its width, there is a pair of long stout setae, also a single short seta at each lateral anterior angle. Prothorax widest just in advance of the middle, where it is one-third wider than long; anterior margin very slightly shorter than the posterior, broadly and feebly emarginate, posterior margin broadly, feebly, and slightly irregularly arcuate; anterior and posterior angles broadly rounded; sides rather strongly arcuate, most strongly so in advance of the middle; disk rather feebly convex, large; basal impressions feeble, finely and feebly punctulate; median line narrowly impressed, distinct; surface polished, paler at the edges, margined narrowly throughout its circumference. Elytra at base slightly wider than the contiguous pronotum; sides strongly divergent and arcuate for a short distance from the humeri, then parallel and nearly straight for two-thirds the length posteriorly; disk moderately convex, obtusely rounded behind; striae narrowly impressed, intervals flat, polished, and minutely reticulated; transverse basal groove strongly bisinuate, making with the acute lateral edges at the humeri, very acute angles; each elytron has a single puncture near the second stria and at two-thirds the length posteriorly. First four joints of the anterior and middle tarsi strongly and nearly equally dilated, densely spongy-pubescent beneath; first joint of the posterior tarsi very slightly longer than the second. Length 6.0 mm.

Arizona (Morrison).

This species is remarkable amongst its congeners, for the very strong dilatation of the middle tarsal joints in the male; the setae on the sub-mentum are also somewhat singular.

HARPALUS.

H. opacus n. sp.—Form and size nearly as in *rufimanus*. Body nearly opaque, black. Head rather broad; labrum short, broad, feebly, and roundly emarginate anteriorly; antennae scarcely as long as width of prothorax, first joint nearly as long as the second and third together, rufo-testaceous, remaining joints robust and thickly clothed with short piceous setae, last joint perceptibly compressed; last joint of maxillary palpi much darker toward base. Prothorax nearly one-half as wide again as long; sides rather feebly arcuate, more so anteriorly, apex narrower than base; basal angles rounded, lateral border narrow but very strong; surface feebly convex,

confusedly roughened near the basal angles; median line nearly obsolete. Elytra at base as wide as the prothorax, two-thirds as long again as wide, evenly rounded behind, leaving the pygidium exposed; sides parallel and feebly arcuate; surface evenly and strongly striate, interspaces moderately convex. Scutellum extremely small, angulated behind. Pygidium finely punctate. Legs moderate, black, tarsi very dark blackish-fuscous, first joint of anterior nearly equal in length to the second and third together, slightly shorter than the last; posterior tarsi long and slender, first joint distinctly longer than the second and third together, fourth joint very small. Length 11.0 mm.

Eastern Pennsylvania; one specimen, ♂.

I have only succeeded in finding one representative of this species, which seems to be very distinct by reason of the structure of the hind tarsi; the mandibles are very large and robust, and are very blunt at the tips, as if worn by long usage. It greatly resembles at first sight several species of *Anisodactylus*.

The parasite of this species is very small, as long as the diameter of the first tarsal joint; it is narrowly oval, moderately convex, highly polished, and cinereo-testaceous in color; upon each side there is a distinct impressed puncture, and there appears to be a transverse segmentation in the anal region.

H. manhattanis n. sp.—Form rather slender, very convex. Entire body and legs, with the exception of the tarsi, deep black, the latter dark reddish-testaceous. Head large, convex, and highly polished; eyes small and rather distant from the posterior angles; labrum very feebly and narrowly sinuate anteriorly, nearly one-half wider than long; epistoma bearing one large setigerous puncture at each anterior angle, posterior transverse suture very feeble; antennae as long as the width of prothorax, first joint reddish-testaceous, remaining joints much darker, fuscous, pubescence short, very coarse, close, fulvous in color. Prothorax one-third wider than the head, convex, base and apex equal in width; median line distinct throughout the length of the pronotum; anterior angles acutely rounded, posterior broadly and evenly rounded; punctures at the base rather feeble and confused. Scutellum small, triangular. Elytra almost imperceptibly wider than the prothorax, one-half as long again as the head and prothorax together; disk convex, finely, evenly, and distinctly granulate; striae very fine, interspaces flat; sides parallel and very feebly arcuate. Abdominal segments very unequal in length, the last longer than the two preceding together. Posterior trochanters scarcely more than one-third as long as the femur; first joint of anterior tarsi nearly as long as the next two together, that of the posterior much longer than the second and third together. Length 10.5 mm.

Staten Island, near the city of New York; one specimen, ♂.

This species somewhat resembles *funestus*, but it is very much less robust than that species, and differs in several other characters. The

mentum is not toothed, and the emargination is evenly rounded at the bottom; the last joint of the maxillary palpi is very slightly shorter than the penultimate, and is much paler in its distal than in its basal half.

As in *opacus*, the first joint of the posterior tarsi is much longer than the second and third together, and thus another barrier to the union of Harpalus and Selenophorus, as separated in the table given in the Classification of the Coleoptera of North America, is removed; in the present species this joint is almost equal to the next three together.

H. vespertinus n. sp.—Form moderately robust, sides feebly arcuate. Body intense black, highly polished. Head moderate, width across the eyes slightly exceeding length including mandibles; supra-orbital setae very long, testaceous; antennae about equal in length to width of prothorax, rather pale testaceous throughout, last joint strongly compressed; oral organs testaceous, tips of mandibles darker. Prothorax much wider than the head, one-half as wide again as long; sides arcuate anteriorly, parallel and straight posteriorly; posterior margin transverse; basal angles very slightly rounded; surface impunctate, feebly and longitudinally impressed on each side at the base; median line very narrow but distinct. Elytra at base as wide as the prothorax, two and one-half times as long as the pronotum, evenly rounded behind, and leaving the tip of the last ventral segment exposed; sides parallel and very feebly arcuate; striae close and strong, intervals convex. Scutellum small, acute posteriorly. Legs moderate, femora and tibiae piceous-black above, femora rufo-testaceous beneath, tarsi rather pale testaceous, first four joints of anterior tarsi equal in length in the male, last joint as long as the first and second together. Length 8.5–9.0 mm.

Arizona (Morrison). Apparently quite abundant in the extreme southwest.

In the coloration of the legs it resembles *H. rufimanus* Lec., from Lake Superior.

H. placidus n. sp.—Form moderately slender. Color dark castaneous above, slightly paler beneath, legs and antennae throughout still paler. Head rather large, longer than broad; eyes moderate, situated at one-third the entire length from the posterior angles; surface very convex, highly polished, and excessively minutely punctulate; labrum and epistoma nearly as in *manhattanis*, transverse suture very distinct; antennae very slightly longer than the width of prothorax; emargination of mentum trapezoidal, bottom broadly and rather feebly arcuate. Prothorax much wider than the head, base very slightly longer than the apex; anterior angles rather acutely rounded, posterior broadly and evenly rounded; surface moderately convex, basal punctation broadly diffused, rather feeble and somewhat confused. Elytra very slightly wider than the prothorax, two-thirds as long again as the head and prothorax together; disk rather depressed, minutely and distinctly granulate; striae moderately strong, intervals nearly flat. Posterior

trochanter nearly one-half as long as the femur; femora robust; first joint of posterior tarsi not equal in length to the next two together; inner terminal spur of anterior tibiae very long, robust at base; outer apical spurs, three in number, very stout; on the under surface and in the middle of the distal edges of the first two joints of the anterior tarsi, there is a short, acute tooth, projecting at right angles to the axis of the joint. Length 9.5 mm.

Willets Point, Long Island; one specimen, ♂.

This species resembles *fallax*, and differs from that species superficially in its proportionally longer elytra and shorter prothorax; also in the posterior angles of the latter, which are more broadly rounded.

H. mutabilis Hald.

This appears to be a valid species, the differences between it and *herbivagus* Say, lying principally in its smaller size, more narrow and convex form, and in the structure of the prosternal intercoxal process; the prothorax is also relatively much longer and narrower than in that species. Before determining the species in my cabinet from Dr. LeConte's collection, I had already separated the two species, which can very readily be done by the unaided eye, indicating a distinct difference of facies; *mutabilis* is much the smaller of the two.

The five following species are the result of a study on a number of specimens, all of which were included in my cabinet under the name *viridiæneus* Beauv., and was as much a source of surprise to me as it may perhaps prove to others. They are separated by the setigerous punctures of the epistoma, and in this respect are more distinctly characterized than many more marked species of this difficult genus. I had long been inclined to think that a much smaller and narrower form was a distinct species from *viridiæneus*, but was not prepared to find such a variety in the others, which greatly resemble each other. They are all metallic-green species, and may be clearly separated as follows:—

- Epistoma bearing two closely approximate and unequal setigerous punctures at each anterior angle; also two, more widely separated, in the middle, nearly on a line with the pairs at the angles.....**viridiæneus.**
 Epistoma bearing two closely approximate and nearly equal setigerous punctures at each anterior angle, and in addition, two rather more distant punctures in the middle and near the posterior margin.....**convictor.**
 Epistoma bearing two closely approximate setigerous punctures at each anterior angle.....**canonicus.**
 Epistoma having but one setigerous puncture at each anterior angle.
 Larger species. Head large; elytra wider than prothorax.....**lustralis.**
 Smaller species. Head smaller; elytra as wide as prothorax.

ænescens.

H. viridiæneus Beauv.—Head large. Prothorax one-half as wide again as long, very slightly longer than the head, and very feebly narrowed behind; hind angles nearly acute, anterior angles rather broadly rounded; punctures at base very coarse and closely crowded, coalescent; surface highly polished, not granulate. Elytra equal in width to prothorax; sides parallel and very feebly arcuate; surface strongly and very minutely granulated. Length of head and prothorax together 4.5 mm., of elytra 6.3 mm.; width of elytra 4.0 mm. Female.

This is a common form, and is widely distributed in the United States, it is mentioned here simply for comparison.

The European *æneus* seems to be distinct from all our allied species.

H. convictor n. sp.—Head small, much broader than long. Prothorax much longer than the head, one-third as wide again as long; sides much more arcuate anteriorly than posteriorly; punctuation at the base deeper, more widely diffused and less coalescent than in any of the other species. Elytra as wide as prothorax; sides parallel and nearly straight; granulation nearly obsolete; striae deep, interspaces flat. Length of head and prothorax together 4.6 mm., of elytra 5.8 mm.; width of elytra 3.9 mm.; male.

Willets Point, Long Island.

H. canonicus n. sp.—Form as in *viridiæneus*. Head small. Prothorax just perceptibly narrowed behind, not one-half as wide again as long; sides strongly and nearly evenly arcuate; punctures as in *viridiæneus*; hind angles less strongly, anterior angles more strongly arcuate than in that species. Elytra very slightly wider than the prothorax; sides parallel and rather feebly arcuate; granulation very feeble. Length of head and prothorax together 4.2 mm., of elytra 5.0 mm., width of elytra 3.8 mm. Male.

Rhode Island.

H. lustralis n. sp.—Head large. Prothorax nearly as in *viridiæneus*. Elytra distinctly wider than the prothorax; sides parallel and strongly arcuate; disk strongly and minutely granulated; striae more feeble, interspaces much flatter than in either *viridiæneus* or *canonicus*. Length of head and prothorax 4.5 mm., of elytra 6.2 mm.; width of elytra 4.3 mm. Female.

New York State.

The elytra have in the type specimen a strong reddish reflection.

H. ænescens n. sp.—Form proportionally much narrower and more slender than in any of the four species which precede. Head rather large, as wide across the eyes as long. Prothorax but slightly wider than the head, feebly narrowed behind; sides much more arcuate anteriorly than posteriorly; more finely and sparsely punctured at base than in the other species of this group, and also covering a more limited area; much longer than the head, and one-third as wide again as long. Elytra as wide as the prothorax; sides parallel and nearly straight; striae moderate, interspaces feebly convex; granulation excessively minute and regular. Length of head and prothorax together 4.0 mm., of elytra 6.0 mm.; width of elytra 3.4 mm. Male.

Rhode Island; Willets Point, Long Island.

This species has the same arrangement of setae upon the epistoma as *lustralis*, but they are more widely separated in other characters than any other two members of this rather singular group.

In the series of four specimens which I have before me, the males and females are equally divided. There is no perceptible variation among them dependent upon sex, except in the usual strong dilatation of the tarsal joints in the male.

SELENOPHORUS.

S. æneopiceus n. sp.—Form nearly as in *pedicularius* Dej. Color above piceo-aeneous, beneath slightly paler, piceous, paler toward the head, legs and antennae very pale piceo-testaceous, the latter nearly uniform throughout. Head nearly as broad as long, convex; eyes small; supra-orbital seta long, slender, and situated opposite a point of the eye about one-fourth the length of the latter from its posterior extremity; labrum paler in color; sides convergent anteriorly; antennae shorter than the head and prothorax together, second joint nearly three-fourths as long as the third, joints seven to ten equal in length, and two-thirds as long as the last; emargination of mentum very deep, evenly rounded at the bottom, parabolic; on the edges of the emargination, near the bottom and somewhat distantly separated, there are two short stout setae; on the sub-mentum there are four setae, two at each extremity, all approximately on the same transverse line. Prothorax widest slightly in advance of the middle, where it is nearly one-half wider than long; sides rather strongly arcuate, most strongly so anteriorly; apical angles broadly rounded, basal rounded but less broadly so; anterior and posterior margins nearly transverse and straight; disk much more transversely convex anteriorly than posteriorly, polished, minutely reticulated, narrowly margined throughout its circumference, impunctate at the base; median line very fine and becoming obsolete near the bases; basal impressions feeble and irregular. Elytra at base as wide as the contiguous pronotum; sides divergent and arcuate near the humeri, thence parallel and very feebly arcuate for three-fifths the entire length; together acutely rounded behind; disk strongly declivous at the sides, about three times as long as the pronotum, slightly less than twice as long as wide; striae finely impressed, intervals very feebly convex, polished, minutely reticulated; punctures of second, fifth, and seventh striae distinct, impressed, rather small. First joint of posterior tarsi fully as long as the next three together. Length 6.1–6.6 mm.

Arizona (Morrison).

The erect setiform pubescence around the exterior edges of the elytral disk is sparse and very limited in extent; not as dense as in *pedicularius*.

The three species *gagatinus*, *pedicularius*, and *æneopiceus*, which resemble each other more or less, may be separated by the posterior tarsi as follows:—

In *aneopicus* the second joint is much longer than the third; third and fourth equal; fourth and fifth together much longer than the second and third together; fifth scarcely more than two-thirds as long as the first.

In *pedicularius* the second, third, and fourth joints decrease in length with great uniformity; the fourth and fifth together are very much longer than the second and third.

In *gagatimus* the first joint is not as long as the next three together; the second, third, and fourth joints decrease very uniformly and rapidly in length; the second and third together are slightly longer than the fourth and fifth together; the fifth is equal in length to the second, and is but slightly more than one-half as long as the first; the entire tarsus is much more slender.

These differences are very striking, and are so great that it is difficult to conceive of their not having been employed in the classification of the species in this genus.

It may be well to remark, while considering this genus, that (*S.*) *ellipticus* Dej. is quite distinct from the (*S.*) *granarius* of that author.

STENOLOPHUS.

S. gracilis n. sp.—Form as in *ochropezus*. Body pale piceous-brown above, somewhat paler beneath. Head across the eyes just perceptibly narrower than the length including mandibles; the latter very prominent; antennae slender, nearly as long as the elytra, first two joints piceo-testaceous, remainder dark piceous-brown. Prothorax small, slightly wider than head and rather broader than long, very feebly and evenly emarginate anteriorly; sides strongly arcuate, rather more strongly so anteriorly; posterior angles rounded; lateral border distinct; surface highly polished, confusedly punctate near the basal angles; median line nearly obsolete. Elytra at base one-third as wide again as prothorax, twice as long as broad at base, evenly rounded behind; sides parallel and distinctly arcuate; surface moderately convex, striae deep and well marked, close, interspaces very convex and highly polished. Legs moderate, pale flavo-testaceous. Length 6.0 mm.

Arizona; one specimen.

This species resembles *ochropezus* in its general form, but differs in many other characters, among which may be cited the color of the under surface, which in *ochropezus* is very dark, in some specimens nearly black, while in the present species this color is paler than the upper surface, which is in turn very much paler than that of *ochropezus*: the spine of the front tibia projects from the middle point of that member, while in the latter it is situated much nearer the

apex; the last joint of the anterior tarsi in the Eastern species is much longer than in the Western representative. From the depth of color seen in the antennae, the supposition that the specimen from which the description is taken is immature seems untenable.

BEMBIDIUM.

B. vimulum n. sp.—Form rather slender, sub-depressed. Head moderate, as wide as long; eyes large, prominent; supra-orbital elevations distinct and well-developed; anterior supra-orbital seta opposite a point of the eye two-fifths the length of the latter from the anterior extremity, posterior seta much smaller, and situated opposite a point one-fourth the length from the posterior limit; interocular surface feebly convex, highly polished, brilliant metallic golden-aeueous in color; labrum more than twice as wide as long, apical angles acute, front nearly transversely truncate; third joint of antennae as long as the first; emargination of mentum very broad and shallow, tooth very stout, acute, and slightly longer than the depth of the emargination; dental setae strong, situated on the base of the tooth; there are two setae transversely arranged near each basal angle of the submentum, also a smaller seta at each anterior angle. Prothorax widest at slightly more than one-third its length from the apex, where it is slightly wider than long; sides strongly and evenly arcuate anteriorly, very feebly sinuate just before the basal angles; the latter acute, anterior angles broadly rounded; base and apex nearly transverse, the former just perceptibly shorter than the latter; disk rather strongly and very evenly convex, extremely highly polished, brilliant golden-aeueous, without trace of irregularity or minute reticulation; longitudinal carinae at the basal angles short and very strong; just within each there is a deep, rounded impression; median line narrow and distinct; sides narrowly reflexed. Elytra across the humeri nearly twice as wide as the pronotum at base; sides parallel and nearly straight for three-fourths the length; disk more than three times as long as the prothorax, acutely rounded behind, rather depressed, slightly less than twice as long as wide; very strongly punctate, punctures round, very deeply impressed, arranged in striae-like rows; distance between the punctures in the rows much less than the distance between the latter; surface variously mottled with yellowish-testaceous and dark blackish-castaneous, with a preponderance of the former, very highly polished, with greenish metallic reflections from the punctures. Under surface polished, piceous-black; legs pale yellowish-testaceous. Length 4.6 mm.

Arizona.

The reflected light from the pronotum is tinged with metallic-green toward the edges of the disk, while the full reflected light is of a very brilliant aeneous tint.

TACHYS.

T. litoralis n. sp.—Form elongated, narrow, sides parallel. Head and prothorax reddish-testaceous; elytra darker, fuscous, tips paler; legs, oral

organs, and bases of the antennae pale flavo-testaceous, remainder of antennae piceous-brown; under surface of the body slightly darker than the legs, but paler than the upper surface. Head slightly longer than broad, upper surface distinctly but minutely granulate; labrum one-half as wide again as long, very feebly emarginate anteriorly, and bearing six setae, the two lateral ones very long; eyes moderate, coarsely granulate, one-third their length in advance of the posterior angles; antennae scarcely one-half as long as the body, first joint slightly shorter and thicker than the second, equal in length to the third, joints four to ten shorter than the third, sub-equal and cylindrical, last joint very slightly thicker and two-thirds longer than the tenth, sub-cylindrical and obtusely acuminate at tip; mentum tooth distinct, simple, projecting below the general surface; immediately behind the tooth are two very large, deep, closely approximate, foramenous punctures; fourth joint of maxillary palpi extremely short and narrow, almost invisible. Prothorax slightly broader and equal in length to the head, one-half as wide again as long; anterior margin nearly transverse, posterior transverse and feebly sinuate toward the angles; sides arcuate, slightly more strongly so anteriorly, very feebly sinuate just before the posterior angles, which are strongly and acutely toothed; anterior angles very slightly rounded; surface rather feebly convex and very narrowly bordered. Elytra at base slightly wider than the prothorax; humeral angles rather pronounced; sides parallel and feebly arcuate; suture three times as long as the prothorax; border narrow, continuing from the apices as a sutural stria, other striae almost obsolete; near the inner basal angle of each elytron there is a small circular wart-like elevation, which is apparently setigerous; there are on the disk of each two setae, and just behind the humeral angles three rather closely approximate, also two to three near the border and two-thirds the length posteriorly. Scutellum small, acute behind, sides areolate. First four joints of anterior tarsi decreasing uniformly and very gradually in length and width, very short, last joint somewhat longer than the first and second together, narrow at base. Last ventral segment covered very sparsely with very fine, short, recumbent pubescence toward tip, where there are four equi-distant erect setae arranged transversely. Length 2.3, breadth 0.9 mm.

Atlantic City, New Jersey; one specimen.

This seems to be a very distinct species, being very much more slender and parallel than any other which I have seen. Resembles *scitulus* in the forameniform apertures behind the mentum tooth; they are, however, smaller and closer than in that species.

TITHANIS n. gen.

Mentum coriaceous, short and very wide, broadly, roundly and very evenly emarginate in front, continued anteriorly by the hypoglottis, which appears to form a part of the true mentum; hypoglottis and mentum together trapezoidal; sides straight and rapidly convergent, narrowly and transversely truncate anteriorly. Maxillary palpi very well developed, five-jointed, very sparsely and coarsely setose, last joint very small, subulate. Labial palpi

very short, not longer than the third joint of the maxillary, first joint very robust, second more slender, sub-cylindrical, third thin and subulate, fourth very minute and obscure, subulate. Gular sutures very strong. Eyes extremely long, regularly oval. Labrum broadly and very feebly emarginate. First joint of antennae longest, second shorter and less robust, third longer than the second, joints four to ten short, very broad, increasing in width. last joint nearly as long as the two preceding together, constricted slightly before the middle, obtusely ovular at tip. Middle coxae distant. Mesosternal process parabolic, extending to mid-coxal section, where it is met by a broadly truncated extension of the metasternum, truncation slightly emarginate.

This genus is founded on Dr. LeConte's *Aleochara valida*, one of the largest members of the group Aleocharini; it is found in Arizona.

In many of its characters it resembles Aleochara, but in the structure of the mesosternum between the coxae it differs entirely from it, there being not even a trace of the prominent medial ridge so characteristic of that genus.

For purposes of comparison I have given on plate I, fig. 8, a representation of the arrangement of the processes between the middle coxae in Aleochara, taken from *A. binaculata*.

There does not appear, at the present time, to have been more than one species discovered, viz:—

T. valida (Lec.).—Journ. Acad. Nat. Sci. Phila., 1858, ser. 2, vol. iv. p. 16.

The eight outer joints of the antennae are covered very densely with a closely recumbent, excessively short pubescence, and there is besides this a system of very long, sparse, coarse, erect setae, totally distinct from the first.

EMPLENOTA n. gen.

Mesosternal process very narrow, extending nearly the entire distance between the coxae, where it becomes very acute and meets a somewhat acutely triangular projection of the metasternum. Maxillary palpi short, five-jointed, fourth joint very narrow, elongated, subulate, fifth joint excessively minute, as broad as long. First three joints of antennae decreasing uniformly in length, fourth globular, remaining joints incrassate, joints five to ten broader than long, last joint large, conoidal, as long as the two preceding together. Hind coxae very narrowly separated, spurs of middle tibiae strong and slightly unequal in length.

E. maritima n. sp.—Form moderately slender, sides parallel. Pubescence of head and abdomen much longer, more erect, and much sparser than that of prothorax and elytra, which is very dense, recumbent, and growing outward from the median line, pale piceo-cinereous. Color deep piceous-black, apices of the abdominal segments paler. Head strongly deflexed.

slightly longer than broad, ovulate, wider behind the eyes; surface very feebly, coarsely and sparsely punctate, except along a broad median space, also uniformly and minutely granulate; eyes very flat, on the sides of the head, much more than their own length in advance of the posterior angles, covered sparsely with erect setae; labrum short, broad, feebly emarginate; antennae very finely pubescent, scarcely longer than the head. Prothorax anteriorly equal in width to the head, arcuately widening to a point slightly in advance of the middle, where it is distinctly broader than long; sides thence moderately convergent and arcuate posteriorly; basal angles so obtuse as to be almost imperceptible; posterior margin broadly, evenly, and very strongly arcuate, anterior margin almost transverse; surface very feebly and evenly punctate, minutely and strongly granulate. Elytra at base as wide as the prothorax; sides nearly parallel, distinctly shorter than width at base and moderately arcuate; each elytron nearly squarely truncate behind, with the angles rounded, truncation very feebly arcuate; surface depressed, sculptured like the prothorax, granulation finer and more indistinct. Abdominal segments of equal width; border strong, erect, and very deep; surface very obscurely granulate, granulation stronger on the fifth segment, which is also sparsely and very feebly punctulate; posterior margin transverse. Legs short; femora and tibiae deep piceous-brown, tarsi piceo-testaceous. Under surface of abdomen covered sparsely with rather short, fine, recumbent setae.

Met.—Sixth ventral segment produced at apex; sides sinuous; tip obtusely rounded.

Female.—Sixth segment broadly and acutely angulate at tip; sides straight. Length 3.0-4.0 mm.

Atlantic City, New Jersey; Fortress Monroe, Va.

This is a common species, found under debris cast up by the waves on the sea-coast; it bears a certain resemblance to both *Aleochara* and *Homalota*.

EUÆSTHETINI.

Of the three genera which compose this tribe—*Euæsthetus*, *Edaphus*, and *Stictocranius*—the first is the only one, the representatives of which seem to be in any degree numerous; but nothing positive can be stated in regard to numbers, owing to the excessive minuteness of the insects and the consequent difficulty of collecting them.

Upon a careful and long-continued study of the *Stenini*, as well as a somewhat thorough review of the *Paderini*, it appears evident to me that the three genera in question can belong to neither of these tribes, although most closely allied to the former, by the almost exactly similar structure of the antennae, oral organs, and thorax, in addition to the like position of the antennae upon the front; it differs very greatly in the character of the eyes, sculpture, structure of the mentum, color and density of the integuments, and more especially

in the structure of the tarsi, which are all four-jointed. With the Pæderini they seem to possess very few characters in common, differing from them even to a more marked degree in the tarsal and antennal structures.

On the other hand, they possess many characters not found in either of the tribes under consideration; as, for example, the minute denticulation of the labrum in *Euæsthetus* and the four-jointed tarsi, as well as the small, very convex, coarsely granulated eyes, situated very near the posterior angles of the head.

From these considerations, therefore, it has been deemed best to constitute of these three genera, a tribe equal in value to either the *Stenini* or the *Pæderini*, and to be placed between them, with the remark that the affinities which it exhibits are greater toward the former than toward the latter.

As the genus *Stictocranium* contains but one known species, which has been sufficiently described by Dr. LeConte, it is proposed here to limit the discussion to the genera *Euæsthetus* and *Edaphus*, of which the following tables and descriptions will serve approximately to identify the species discovered thus far. The material at hand forms a part of what is probably the most extensive American collection of these genera yet brought together; the *Euæstheti* were all taken by Messrs. E. A. Schwarz and H. G. Hubbard, to whom I am indebted for many acts of courtesy.

EUÆSTHETUS Grav.

The species of this genus are very difficult to discriminate, and especially so to satisfactorily tabulate, owing to a very remarkable lack of salient characters. Those forms which appear to me worthy of specific recognition may be classified as follows:—

Elytral suture distinctly shorter than the pronotum.

Elytra strongly punctate; disk polished throughout.

Prothorax much broader than long; sides of elytra strongly divergent posteriorly.....1. **brevipennis.**

Prothorax but slightly wider than long; sides of elytra feebly divergent.

Large species 1.6 mm.; blackish-castaneous2. **punctatus.**

Very small species 1.0–1.2 mm.; very slender; much paler, rufous or rufo-testaceous3. **floridæ.**

Elytra feebly punctate; disk having a large area, about the inner apical angles excessively minutely granulated and not polished.

Sides of elytra strongly divergent posteriorly; border of fourth and fifth ventral segments strong4. **similis.**

Sides of elytra very feebly divergent posteriorly; border of fourth and fifth ventral segments very feeble, nearly obsolete...5. **mundulus.**

Elytral suture in length equal to or longer than the pronotum.

Elytra more or less punctulate.

Species robust: sides of elytra rather strongly divergent posteriorly; color pale rufo-testaceous. Mass.....6. **robustus**.

Species more slender: sides of elytra very feebly divergent posteriorly; color dark piceo-rufous or blackish-castaneous.

Disk of elytra iridescent: short canaliculations of pronotum very deep and distinct7. **iripennis**.

Disk of elytra not iridescent; canaliculations of prothorax either entirely absent, or reduced to very indistinct, shallow erosions, and situated much nearer the base.

Prothorax much wider than the head8. **texanus**.

Head and prothorax equal in width or extremely nearly so.

9. **americanus**.

Elytra entirely impunctate: very small robust species; elytra much longer than the pronotum; blackish-castaneous, elytra usually more or less clouded with rufous.....10. **atomus**.

1. **E. brevipennis** n. sp.—Form rather slender. Pubescence rather long, fine, semi-erect, evenly distributed, pale piceous. General color dark reddish-testaceous, head and abdomen paler, antennae and legs still paler. Head rather large, very slightly broader than long; eyes very small; interocular surface very broad, evenly convex, strongly and sub-variolately punctate, punctures round, slightly irregularly distributed, close; between the antennae and in the middle there is a small, impunctate area; antennal tuberculations very small and distinct; teeth of labrum rather widely separated; antennae moderate, joints three and four equal, five, six, and seven sub-equal in length, the last distinctly thicker, oval, eighth joint smaller, globular, ninth transversely oval, as long as the eighth, tenth one-half wider than the ninth, eleventh equal in width, distinctly longer than the ninth and tenth together, finely acuminate. Prothorax one-third wider than long; sides parallel, evenly and rather strongly arcuate for three-fourths the length from the apex, then abruptly, strongly convergent behind, and very feebly sinuate; posterior angles well marked, though rounded; anterior margin much longer than the posterior, equally arcuate; surface rather finely, strongly, and evenly punctulate, punctures roundly impressed, not deep, well marked, separated by slightly more than their own widths; between the centre of the disk and each basal angle there is a short, longitudinal erosion. Elytra at base as wide as the prothorax; sides strongly divergent posteriorly, much shorter than the width at base, evenly and rather feebly arcuate; together broadly, roundly, and rather strongly emarginate behind; suture slightly more than two-thirds as long as the pronotum; surface finely, rather feebly, evenly, and distinctly punctulate, punctures round, impressed, and separated by much more than their own widths; sutural striae very strong. First two abdominal segments as wide as the contiguous elytra; border very strong, evident on all the segments. Prosternum strongly punctate, except toward the coxae. Legs moderate; first joint of the posterior tarsi slightly shorter than the fourth, fourth equal in length to the second and third together.

Male.—Unknown.

Female.—Sixth ventral segment rather acutely rounded behind.

Length 1.3 mm.

Detroit, Michigan; two specimens.

2. ***E. punctatus*** n. sp.—Form elongated, sides nearly parallel. Pubescence rather long, somewhat dense, semi-erect, piceo-cinereous and prominent. Head large, slightly wider than long; interocular surface strongly and evenly convex, rather finely, very closely, and evenly punctate, punctures variolate, round, and sometimes coalescent; supra-antennal tuberculations round and prominent; teeth of labrum longer than breadth of intervals; antennae very slightly longer than the prothorax, joints four to seven equal, third slightly longer, eighth much shorter, globular, last joint much the most robust, as long as the ninth and tenth together, finely and obliquely acuminate; maxillary palpi moderate, third joint robust, very slender at base, as long as the two preceding together; terminal joint of labial palpi setiform and distinct; gula having a rounded, feebly impressed puncture near the posterior limits of the buccal fissure. Prothorax widest at one-third the length posteriorly, where it is just perceptibly wider than the head and slightly broader than long; sides thence rather strongly convergent posteriorly, feebly sinuate near the base; anterior margin distinctly longer than the posterior, equally arcuate; basal angles distinct, apical slightly rounded; surface strongly convex, densely, rather finely, nearly evenly punctate, punctures round; toward the base, on each side of the middle, there is a very feebly impressed, longitudinal line. Elytra at base very slightly wider than the prothorax; sides moderately divergent posteriorly, rather strongly and evenly arcuate; together broadly, roundly, and rather strongly emarginate behind; suture shorter than the pronotum, one-half shorter than the width at base, sutural striae strong, punctures round, rather small, very evenly distributed and close, somewhat feebly impressed, interspaces convex, nearly twice as wide as the punctures, and highly polished. Abdominal segments strongly margined; sides arcuate, first slightly wider than the contiguous elytra; surface feebly convex, impunctate, very minutely reticulated, feebly shining. First joint of posterior tarsi one-half longer than the second, very slightly shorter than the last, second joint very slightly longer than the third. Prosternum rather distantly punctate, punctures impressed, rather small and distinct. Length 1.6 mm.

Crescent City, Florida; one specimen, ♀.

The color of this very distinct species is of a rather dark fuscous; antennae, oral organs, and tarsi paler and testaceous.

3. ***E. floridae*** n. sp.—Form slender. Pubescence of elytra short, recumbent, rather sparse, fine, and inconspicuous, that of head and prothorax longer, more erect, and prominent, that of abdomen still longer, piceo-cinereous throughout. Color throughout dark reddish-testaceous. Head moderate, slightly wider than long; eyes rather large, evenly convex; interocular surface moderately and evenly convex, rather coarsely punctate, punctures

round, rather shallow, evenly distributed, interspaces as wide as the punctures, highly polished; labrum very broadly arcuate, teeth robust, longer than their distances asunder; supra-antennal tuberculation small; antennae robust, slightly longer than the width of head, second joint longer and more robust than the first, joints three to six uniformly and gradually decreasing in length, seventh more robust, slightly elongated, oval, eighth smaller than the seventh, globular, ninth transversely oval, no longer than the eighth, tenth wider than long, nearly twice as wide as the ninth, eleventh as long as the ninth and tenth together, as broad as the latter; mentum much broader than long, concave in the middle, very feebly emarginate anteriorly; maxillary palpi moderate. Prothorax widest slightly behind the middle, where it is slightly broader than long, and very slightly broader than the head; sides thence very feebly convergent and nearly straight to the anterior angles, which are suddenly rounded, and strongly convergent and nearly straight posteriorly; anterior margin longer than the posterior, equally arcuate; disk highly polished, evenly convex, punctate as on the head; just behind the centre and on each side of the axis there is a shallow longitudinal erosion. Elytra at base equal in width to the prothorax; sides moderately divergent posteriorly and feebly arcuate; together broadly and feebly emarginate behind; suture much shorter than the pronotum; surface punctured as on the head, though rather more distantly and feebly; sutural striae strong. Abdominal segments strongly margined toward the base, very feebly so posteriorly; surface impunctate. First joint of posterior tarsi as long as the next two together, slightly shorter than the fourth.

Male.—Fifth ventral segment very minutely emarginate behind, emargination abruptly terminated, scarcely one-sixteenth as wide as the apex, evenly rounded, and about five times as wide as deep; sixth segment very deeply and narrowly incised at apex, incisure two and one-half times deeper than wide.

Female.—Sixth ventral segment rather acutely angulate behind.

Length 1.0–1.2 mm.

Florida (Tampa, Enterprise); two specimens.

The prosternum is coarsely and rather distinctly punctate in its anterior half, posterior half impunctate. Metasternum very large, highly polished, glabrous, and impunctate; darker in color.

4. ***E. similis*** n. sp.—Form rather slender. Pubescence as in *brevipennis*, though rather more sparse. Color dark reddish-testaceous, antennae, legs, and palpi distinctly paler. Head moderate, slightly broader than long; interocular surface strongly convex, strongly and closely punctate, punctures round, very shallow, and very distinctly defined, variolate, separated by nearly their own widths; in the middle and between the antennae there is an impunctate area; antennal tuberculations very strong and prominent; teeth of labrum long and slender; antennae moderate in length, third and fourth joints sub-equal, joints five to seven sub-equal, distinctly shorter than the fourth, eighth globular, ninth transversely oval, as long as the eighth, tenth as long as wide, one-half wider than the ninth, eleventh as wide as the

tenth, rather finely acuminate at the tip. Prothorax just perceptibly wider than the head; sides nearly parallel and rather strongly arcuate to a point slightly behind the middle, then strongly convergent posteriorly and nearly straight; anterior angles broadly rounded, posterior very obtuse, though distinct and but slightly rounded; width two-fifths greater than the length; apex much longer than the base, equally arcuate; disk evenly convex, strongly punctate, punctures round, small, impressed, generally separated by more than twice their own widths, interspaces convex and very highly polished; toward the basal angles there are several large, deep punctures irregularly disposed. Elytra at base as wide as the prothorax; sides strongly divergent posteriorly, shorter than the width at base, strongly and evenly arcuate; together broadly, roundly, and strongly emarginate behind; suture very slightly more than three-fourths as long as the pronotum; surface feebly punctate, punctures round, generally separated by more than twice their own widths, becoming much more feeble, almost obsolete, posteriorly. First three abdominal segments as wide or wider than the contiguous elytra; sides parallel and rather strongly arcuate; border strong; surface minutely granulate or reticulated, feebly shining. Legs moderate; first joint of posterior tarsi slightly shorter than the fourth, fourth equal in length to the second and third together. Prosternum feebly and coarsely punctate in its anterior third. Metasternum impunctate, not darker than the remainder of the under surface, distinctly carinate anteriorly in the middle.

Male.—Unknown.

Female.—Sixth ventral segment broadly angulate at apex.

Length 1.3 mm.

Tallahassee, Florida; two specimens.

This species greatly resembles *brevipennis*, but differs in many minor characters. In the latter the prothorax is relatively much longer, is widest behind the middle, and is very closely punctate; in *similis* the prothorax is much shorter and broader, is widest before the middle, and is more deeply and sparsely punctate; the elytral suture is relatively longer in *similis*, and the elytral punctures are much more distant, slightly coarser and more feeble than in *brevipennis*.

5. ***E. mundulus*** n. sp.—Form slender. Pubescence sparse, rather fine and long, semi-erect, piceous. Color dark castaneous, antennae and legs paler. Head moderate, very slightly wider than long; interocular surface coarsely, strongly, and nearly evenly punctate, punctures round, shallow, very distinctly defined, generally separated by their own widths; antennal tuberculations very distant, small, and very prominent; teeth of labrum twice as long as their distances asunder; antennae moderate in length, joints three to five decreasing nearly uniformly and just perceptibly in length, sixth and seventh shorter, sub-equal in length, the latter much thicker, oval, eighth small, globular, ninth strongly transverse, oval, slightly longer than the eighth, tenth two-fifths wider than the ninth, as broad as long, cylindrical, eleventh as long as the two preceding together, sides nearly

parallel, then suddenly acuminate at tip. Prothorax widest slightly before the middle, where it is very slightly wider than the head; sides parallel and evenly arcuate for two-thirds the length posteriorly, then rapidly convergent and feebly sinuate; anterior margin slightly longer than the posterior, equally arcuate; disk evenly convex, slightly more than one-third wider than long, punctures coarse, deeply impressed, round, evenly distributed, interspaces slightly wider than the punctures, slightly convex and highly polished; near the base, and equidistant from the middle and each basal angle, there are two longitudinal erosions or aggregations of deep coalescent punctures. Elytra at base just perceptibly wider than the pronotum; sides rather feebly divergent posteriorly, slightly shorter than the width at base, evenly and somewhat strongly arcuate; together broadly, somewhat angularly and moderately emarginate behind; suture about four-fifths as long as the pronotum; surface narrowly and rather strongly impressed along the suture, feebly and sparsely punctulate; minutely granulose area near the inner apical angles impunctate as in *similis* and *robustus*; sutural striae deep. First two abdominal segments slightly broader than the contiguous elytra; surface minutely reticulated and feebly lustrous; border strong, except on the fourth and fifth segments, where it is almost obsolete. Legs moderate.

Mal..—Unknown.

Emab..—Sixth ventral segment angularly rounded behind.

Length 1.3 mm.

Cambridge, Mass.; one specimen.

Greatly resembles *similis*, but differs in the narrower thorax, less divergent elytra, longer elytral suture, and more feeble emargination of the elytra behind. The principal distinction, however, is in the lateral border of the fourth and fifth ventral segments, it being almost obsolete and reduced to the simple line of juncture of the dorsal and ventral surfaces in *mundulus*, while in *similis* the border is very wide and strong on the fourth segment, and narrower, though still very distinct, on the fifth.

The minutely granulose portion of the elytra is always of a paler tint than the remainder of the disk; this may be a simple optical phenomenon, arising from the dispersion of the rays of light; the same difference is seen in the color of a rough stone and the same when polished, it being then much darker.

6. ***E. robustulus*** n. sp.—Form robust. Pubescence rather short and abundant, evenly distributed, fine, semi-erect, pale piceous. Color of head, prothorax, and abdomen rather dark reddish-testaceous, base of elytra dark castaneous, remainder of elytra rufous. Head large, very slightly wider than long; interocular surface strongly and irregularly punctured, punctures crowded near the sides, much more loosely scattered along the middle, round, sub-variolate; antennal tuberculations small and very prominent; antennae moderate, third joint one-third longer than the fourth, fourth and

fifth equal, sixth and seventh slightly shorter and equal, eighth globular, ninth very slightly wider than long, slightly longer than the eighth, tenth as long as wide, one-half wider than the ninth, sides nearly straight, eleventh longer than the two preceding together; maxillary palpi very long and well developed. Prothorax widest slightly behind the middle, where it is scarcely more than one-third wider than long; sides thence very feebly convergent and evenly arcuate anteriorly, merging gradually into the very broadly rounded anterior angles, much more strongly convergent and distinctly sinuate posteriorly; anterior margin distinctly longer than the posterior, equally arcuate; surface evenly convex, very highly polished, strongly punctured, punctures rather variolate, round, separated by from once to three times their own widths, much coarser and deeper in a line along the base, and in two longitudinal lines, extending from the base to the middle, and dividing the pronotum laterally into three equal parts. Elytra at base as wide as the pronotum; sides rather strongly divergent posteriorly, distinctly shorter than the width at base, evenly and strongly arcuate; together broadly, roundly, and moderately emarginate behind; suture slightly shorter than the pronotum; disk slightly depressed along the suture, feebly, coarsely, and evenly punctulate, punctures round, very feebly impressed, and separated by slightly more than their own widths; surface highly polished near the base and exteriorly, excessively minutely granulose and not polished in the neighborhood of the inner apical angles; in this granulated area the punctures become almost obsolete; sutural striae very deep. First two abdominal segments slightly broader than the contiguous elytra; surface scarcely shining; border very strong. Legs moderately long; first joint of posterior tarsi equal in length to the next two together, and slightly shorter than the last.

Male.—Fifth ventral segment emarginate in its middle twelfth at apex, emargination evenly rounded, and about six times as wide as deep; sixth segment very narrowly and deeply sinuate at apex, sinus two and one-half times as deep as wide.

Female.—Unknown.

Length 1.4 mm.

Cambridge, Mass.; one specimen.

A very distinct species. The extremely minute granulation of the elytra near the inner apical angles appears to be quite a common character in the genus, and it is undoubtedly the cause of the iridescence seen in *iripennis*, although in other species it does not have that effect.

In the above-described male, the third and fourth ventral segments are just perceptibly emarginate in the middle at apex, and the surfaces of the third, fourth, and fifth segments appear to be very feebly flattened in the middle.

7. ***E. iripennis*** n. sp.—Form somewhat slender. Pubescence long, fine, sparse, sub-recumbent. Color of head and pronotum dark reddish-testaceous, of the elytra castaneous, of the abdomen paler reddish-testace-

ous; legs paler, antennae scarcely paler. Head moderate, just visibly wider than long; eyes very small; interocular surface coarsely, very closely and evenly punctate, punctures round, shallow, sub-variolate, strongly outlined, separated generally by less than one-half their own widths; antennae moderate, ninth joint scarcely wider than long. Prothorax slightly wider than the head; widest very slightly before the middle, where it is scarcely one-half wider than long; sides thence rather strongly convergent and distinctly arcuate anteriorly, very slightly more convergent and nearly straight posteriorly; anterior margin just perceptibly longer than the posterior, equally arcuate; surface strongly and evenly convex, very strongly, finely, and evenly punctate, punctures round, rather deeply and roundly impressed, interspaces as wide as the punctures, flat, and highly polished; just behind the middle, and separated by a distance equal to one-third the width of the pronotum, are two short, narrow, deep, longitudinal, and distinctly defined canaliculations. Elytra at base very slightly wider than the pronotum; sides rather feebly divergent posteriorly, slightly shorter than the width at base, feebly and evenly arcuate; together broadly, roundly, and feebly emarginate behind; suture equal in length to the pronotum; disk rather convex, extremely feebly and evenly punctulate, punctures round, separated by one and one-half times their own widths, excessively feebly impressed, nearly equal in diameter to those of the pronotum; surface distinctly iridescent as in *Selenophorus*; sutural striae very deep. First two abdominal segments slightly wider than the contiguous elytra; border very strong; surface minutely granulate and feebly lustrous. Legs moderate; first joint of posterior tarsi shorter than the next two together, fourth distinctly longer than the second and third together, second joint longer than the third.

Hab.—Unknown.

Female.—Sixth ventral segment rather angularly rounded behind.

Length 1.1 mm.

Ross County, Ohio; one specimen.

This little species may be recognized at once by the peculiar shape of the prothorax, by the short canaliculations on its dorsal surface, and by the iridescence of the elytra; also by the tarsal structure. It appears to be one of the most well-marked species of the genus.

S. E. texanus n. sp.—Form rather slender. Pubescence fine, rather sparse, moderate in length, recumbent. Body uniformly reddish-testaceous. Head moderate, wider than long; interocular surface rather strongly convex, somewhat irregularly and sparsely punctured, along the middle usually impunctate; teeth of labrum nearly twice as long as their intervals asunder; eyes small; antennae paler, nearly as long as the width of prothorax, joints three, four, and five equal, sixth joint shorter and thinner, seventh suddenly thicker than the third, nearly globular, eighth smaller, globular, ninth very slightly larger than the seventh, transversely oval, joints ten and eleven abruptly much thicker, two-thirds wider than the ninth, equal in width, tenth transverse, eleventh as long as the two preceding joints together, finely acuminate. Prothorax one-third broader than long; sides parallel and feebly

arcuate for two-thirds the length posteriorly, then rapidly convergent and distinctly sinuate: anterior angles rounded, posterior very broadly rounded; disk evenly convex, highly polished, rather distantly, evenly, and finely punctured, punctures round, somewhat feebly impressed, interspaces generally two or three times the width of the punctures. Elytra at base as wide as the prothorax; sides rather strongly divergent posteriorly, slightly shorter than the width at base, feebly and evenly arcuate; together broadly and rather strongly emarginate behind; suture about equal in length to the pronotum; sutural striae fine and close; disk very feebly punctulate toward the base, toward the apices it becomes almost absolutely impunctate, punctures extremely feebly impressed, separated by twice their own widths. First four abdominal segments equal in width to the contiguous elytra; sides parallel and slightly arcuate; border strong; surface very minutely rugulose, feebly shining. Legs moderate, slightly paler; first and fourth joints of the posterior tarsi equal in length, first as long as the second and third together. Prosternum rather strongly punctate in its anterior half.

Male.—Fifth ventral segment scarcely modified; sixth segment narrowly, deeply, and triangularly incised at apex.

Female.—Sixth segment rather acutely produced at apex.

Length 1.0–1.2 mm.

Columbus, Texas; three specimens.

The above description was drawn from the female, the male being in very poor condition.

The sexual characters are open to doubt, owing to the extreme difficulty in seeing them, in a satisfactory manner, in the specimens at hand.

9. ***E. americanus*** Er.—Form moderately slender. Pubescence short, fine, semi-erect, evenly distributed, rather abundant. Color throughout dark rufo-piceous, antennae and legs very slightly paler. Head slightly wider than long, rather large; eyes small; interocular surface evenly convex, strongly punctate, punctures round, sub-variolate, separated by their own widths near the antennae, somewhat more crowded along the middle; there is usually a very narrowly impunctate line; supra-antennal tuberculations distinct; labrum feebly arcuate anteriorly; teeth rather short and robust; antennae robust, longer than the width of prothorax, third joint distinctly longer than the fourth, fourth and fifth equal, sixth abruptly much shorter, scarcely longer than wide, seventh more robust, very slightly longer than wide, eighth of equal thickness, globular, ninth transversely oval, much wider than the eighth, tenth as wide as long, two-thirds thicker than the ninth, eleventh as wide as the tenth, as long as the two preceding together, very finely acuminate; last joint of the maxillary palpi longer than the first two together. Prothorax scarcely one-third broader than long, scarcely wider than the head; sides sub-parallel and very feebly arcuate for two-thirds the length posteriorly, then rather rapidly convergent and very feebly sinuate; anterior angles rounded; anterior margin much longer and less arcuate than the posterior; surface very strongly punctate, punctures

deeply impressed, separated by their own widths, near the basal angles agglomerated so as to form two distinct erosions. Elytra at base slightly wider than the prothorax; sides feebly divergent posteriorly, feebly and evenly arcuate, nearly as long as the width at base; together broadly, roundly, and very moderately emarginate behind; suture as long as the pronotum; surface finely, evenly, and distinctly punctulate, punctures feebly impressed, round, separated by twice their own widths, becoming slightly more feeble posteriorly; sutural striae strong, abdominal segments as broad as the contiguous elytra; border becoming nearly obsolete on the fourth and fifth segments. Legs moderate; first joint of the posterior tarsi very slightly shorter than the next two together, much shorter than the fourth. Prosteronum very strongly punctured in its anterior half.

Male.—Fifth ventral segment very broadly and rather feebly emarginate throughout its width at apex; sides of emargination nearly straight, angle at bottom slightly rounded; sixth segment narrowly and extremely deeply incised at apex, incisure five to six times as deep as wide.

Female.—Sixth segment acutely rounded at apex.

Length 1.2-1.4 mm.

Michigan (Detroit, L. Sup.) 14; Cambridge, Mass., 3; Washington, D. C., 1; Sand Pt., Fla., 1; Willets Pt., Long Id., 1; Delaware 1.

The above description was taken from the male, the female antenna does not seem to differ greatly from that of the male; the punctation of the elytra appears to vary slightly in degree.

10. **E. atomus** n. sp.—Form robust. Pubescence very fine, rather short, very sparse, dark piceo-cinereous, inconspicuous. Color dark piceo-fuscous, antennae, front of head and legs slightly paler. Head much broader than long; interocular surface broadly and moderately convex, highly polished, very feebly and distantly punctulate toward the eyes; broad median line impunctate; teeth of labrum nearly twice as long as the intervals; supra-antennal tuberculations rather small; antennae very slightly longer than the pronotum, joints three to six uniformly and gradually decreasing in length, seventh thicker, very slightly elongated, sub-globular, eighth smaller, globular, ninth very slightly wider than the seventh, broader than long, last two joints abruptly much larger, last as long as the ninth and tenth together; maxillary palpi moderate; mentum broadly and feebly emarginate. Prothorax much wider than long; sides very rapidly divergent and feebly sinuate for a very short distance posteriorly, then parallel and nearly straight for a distance equal to nearly one-half the total length, then strongly convergent to the base and very feebly sinuate; anterior and posterior margins nearly equal in length and curvature, feebly arcuate; posterior angles broadly rounded; disk highly polished, very feebly, distantly, and irregularly punctulate, punctures very lightly impressed. Elytra at base just perceptibly wider than the pronotum; sides rather feebly divergent posteriorly, evenly and moderately arcuate; together broadly, roundly, and moderately emarginate behind; suture distinctly longer than the pronotum; disk moderately convex, shining, wholly impunctate, more reddish in

color than the pronotum. Abdominal segments very strongly margined throughout, finely reticulated, feebly convex, somewhat shining. First and second joints of posterior tarsi equal in length, together as long as the last, third joint much shorter than the first. Prosternum impunctate.

Male.—Fifth ventral segment very feebly and roundly emarginate in the middle at the apex; sixth segment narrowly and deeply sinuate at apex.

Female.—Sixth segment rounded behind.

Length 1.0–1.2 mm.

Sand Point, Tampa, and Cedar Keys, Florida; seven specimens.

The above description was drawn from a female, the males being defective; there seems to be very little sexual difference, other than that observed in the abdominal segments, and a slightly more slender form. The species is very distinct and one of the smallest of the genus.

The mentum in *Euæsthetus* is perfectly plane or very feebly undulated on the exposed surface, and is not, like *Stenus*, ornamented with a very conspicuous triangular cariniform elevation.

EDAPHUS Lec.

Dr. LeConte's description of the only species hitherto known in this genus, runs as follows (Smith. Misc. Coll., '63-'66, p. 50).

E. nitidus.—*Testaceus nitidus*, glaber, laevis capite bi-impresso, thorace latitudine fere brevior, subcordato postice angustato, ante basin foveis 4 magnis insculpto; elytris stria suturali vix conspicua. Long .04 (inch).

Alabama and Louisiana.

In the course of the remarks made upon this species, the author states that the genus differs from *Euæsthetus* principally in the smooth impunctured body. Since it is seen that we have species of *Euæsthetus*, which are almost impunctate, more so in fact than the two new species of *Edaphus*, to be subsequently described, it seems preferable to state the difference between *Edaphus* and *Euæsthetus* as follows:—

In the former the head between the eyes is strongly bi-impressed, the labrum is not provided with teeth, the prothorax has several deep foveae along the base, and the dorsal surface of the first ventral segment has a very narrow acute medial carina throughout the anterior half of its length; while in *Euæsthetus* the comb-like row of teeth of the labrum is a very marked feature, the head between the eyes is perfectly even and convex, there is no transverse row of foveae near the base of the pronotum, and the dorsal carina of the first ventral segment is totally absent.

If the structure of the abdomen were not noted, it would be almost impossible to distinguish the genus from some of those of the Pselaphida.

Our three species may be distinguished as follows:—

- Basal thoracic foveae four in number **nitidus**.
 Basal thoracic foveae six in number.
 Prothorax having at the base a very distinct medial carina; body rather strongly pubescent..... **carinatus**.
 Prothorax having no appearance of the medial carina; pubescence very sparse; color pale **luculentus**.

I have seen no specimen of the first species, and the characters employed rest entirely on the authority of Dr. LeConte.

E. carinatus n. sp.—Form slender. Pubescence moderately close, distinct, sub-recumbent, evenly distributed. Head small, slightly wider than long; interocular surface with two irregular and well-marked impressions, porrected between the antennae, forming a transverse rounded elevation, under which the antennae are inserted; labrum broadly and feebly angulate anteriorly; antennae slightly shorter than the head and prothorax together, first two joints equal and robust, next three much narrower, slightly longer than wide, sub-equal, joints six to eight shorter, sub-globular, seventh transversely oval, ninth shorter than the eighth, strongly transverse, tenth abruptly more than twice as wide as the ninth, strongly transverse, eleventh slightly wider than the tenth, longer than wide, having a distinct terminal process; maxillary palpi rather slender, third joint as long as the first two together, fourth not visible; mentum small, trapezoidal, surface flat. Prothorax much broader than the head, one-third wider than long; sides for two-thirds the length from the apex parallel and strongly arcuate, then abruptly convergent behind and sinuate; anterior angles rounded, posterior acute; apex much longer than the base, equally and feebly arcuate; disk impunctate, highly polished, strongly convex; near each basal angle, and in the middle at the base there is a very acute, short longitudinal carina attaining the basal margin; between each pair of carinae there are three transversely disposed deep equidistant foveae. Elytra at base as wide as the prothorax; sides rather rapidly divergent posteriorly, slightly longer than the width at base and feebly arcuate; together broadly and very feebly emarginate behind; suture one-third longer than the pronotum; disk convex, very feebly and distantly punctulate; sutural striae distinct. Scutellum excessively small. Abdominal segments as wide as the elytra, very strongly margined, border abruptly much narrower, nearly obsolete, on the fifth segment; surface very convex, highly polished. Legs moderate; first three joints of posterior tarsi decreasing in length, last much longer. Color throughout the body dark reddish-testaceous, legs paler; integuments translucent.

Molt.—Sixth ventral segment very strongly emarginate at apex, emargination nearly evenly rounded, nearly as wide as the entire segment, and about two-thirds wider than deep; seventh segment truncate at tip.

Female.—Unknown.

Length 0.9 mm.

Washington, D. C. (Schwarz).

The carinae of the pronotum are very strong, and will render the species very easily recognizable.

E. luculentus n. sp.—Form slender. Pubescence extremely sparse, almost totally absent from the pronotum. Head and antennae nearly as in *carinatus*; labrum very broadly trapezoidal, broadly rounded anteriorly, where it is fringed with very short whitish setae, and also with very long sparse hairs; third joint of maxillary palpi longer than the first two together. Prothorax wider than the head, one-fourth wider than long; sides as in *carinatus*: anterior margin longer and more strongly arcuate than the posterior, which is nearly transverse; the two carinae at the basal angles are distinct, the middle one is entirely obsolete; parallel to the basal margin and at a short distance from it, is a row of six very deep distinct impressed foveae; disk of pronotum impunctate and highly polished. Elytra at the base slightly wider than the pronotum; sides rather strongly divergent posteriorly, longer than the width at base, rather strongly and evenly arcuate; together broadly, roundly, and feebly emarginate behind; suture one-fifth longer than the pronotum; surface moderately convex, highly polished, very minutely, distinctly, and extremely distantly punctulate; sutural striae distinct and very close; surface of abdomen extremely highly polished, nearly as in the preceding species. Legs moderate: first three joints of the posterior tarsi decreasing uniformly and very gradually in length, fourth as long as the two preceding together. Color throughout very pale testaceous, legs paler, last two joints of antennae distinctly darker.

Male.—Sixth segment very broadly emarginate at apex, emargination as wide as the segment, evenly rounded, and very feeble, fifteen to twenty times as wide as deep; seventh segment rather acutely rounded at apex.

Female.—Unknown.

Length 1.0 mm.

District of Columbia (Ulke).

TYCHUS.

T. testaceus n. sp.—Form somewhat slender. Pubescence coarse, erect, somewhat dense and long, shorter on the head and pronotum. Color uniformly reddish-testaceous, integuments translucent. Head, from front of tuberculation to base, longer than the width across the eyes; interocular surface very convex, smooth, and highly polished; eyes very small, semi-circular; tuberculation large, median furrow very narrow; genae nearly transverse behind the eyes; antennae as long as the elytra and prothorax together, first joint twice as long as the second, distinctly more robust, second very slightly longer than wide, sub-cylindrical, joints three to eight sub-equal, joints of club increasing uniformly in width, ninth one-third wider than the eighth, ninth and tenth wider than long, eleventh nearly twice as wide as the ninth, longer than the two preceding joints together, conoidal,

abruptly acuminate, very feebly narrowed toward the base; maxillary palpi long, first joint cylindrical, very minute, second at base as wide as the first, much the longest, for three-fifths its length it is very narrow, cylindrical, and bent upward slightly, then suddenly expanding into a flattened, sub-securiform club, third joint nearly one-half as long as the second, strongly flattened and broadly securiform, widest in the middle, fourth joint one-half longer than the third, flattened, strongly securiform, widest slightly behind the middle, where it is three-fifths as wide as long, surface thickly covered with short erect setae, from the immediate apex protrudes a long slender spine; labrum twice as wide as long, very convex, transverse anteriorly, sides very strongly arcuate and parallel. Prothorax widest in the middle, where it is slightly broader than long and wider than the head; sides thence very strongly convergent and feebly sinuate anteriorly, rather feebly convergent and nearly straight posteriorly; anterior margin three-fifths as long as the base; disk very convex, highly polished, and impunctate. Elytra at base as wide as the prothorax; sides moderately divergent posteriorly, nearly evenly and rather strongly arcuate; together broadly and transversely truncate behind; suture one-half longer than the pronotum; disk evenly convex, striae two on each elytra, sutural continuous throughout, medial abruptly ending just before the middle; surface highly polished, impunctate; humeri rather broadly rounded. Abdominal segments arcuately and rapidly decreasing in width, not as long as the elytra, strongly bordered; surface highly polished. First joint of posterior tarsi very short, second and third of equal length. Length 1.5 mm.

Cambridge, Mass.; Trenton Falls, N. Y.; Ann Arbor, Mich. (Schwarz).

Appears to be widely distributed and not uncommon. Reitter, in the "Insecten Deutschlands," says that the third joint of the maxillary palpi in the genus *Tycheus* is "very small, scarcely visible." This is certainly not the case with the North American representatives of the genus, as in all of our species, which I have examined, the third joint is very fully developed, and in *T. longipalpus* Lec. it becomes nearly as long as the second joint.

BRYAXIS.

B. gracilis n. sp.—Form rather slender. Pubescence very long, rather abundant, erect, setiform, pale fulvo-cinereous, prominent, less dense on the pronotum. Head moderate, length from clypeus to base but very slightly greater than width across the eyes, which are small, very prominent, and nearly hemispherical; genae distinct, equal in length to the eye; interocular surface moderately convex; the three foveae are at the apices of an equilateral triangle, they are prominent, almost exactly equal, circular, impressed, and spongy at the bottom; antennae as long as the head and prothorax together, first joint indented above to fit the supra-antennal tubercle, second joint very slightly smaller, remaining joints to the ninth more slender, sub-cylindrical, equal in thickness, ninth slightly larger, very slightly

broader than long, tenth nearly twice as wide as long, one-half wider than the ninth, eleventh nearly as long as the four preceding joints together, twice as wide as the ninth, slightly constricted at the base, which is transversely truncate, obliquely conoidal, feebly acuminate at the tip; labrum twice as wide as long, transversely and very feebly emarginate at apex, rectangular. Prothorax much wider than long, suddenly and strongly swollen at the middle; sides rather strongly convergent posteriorly and very feebly sinuate; disk very convex, not punctate, polished; lateral foveae well developed, impressed, circular, slightly behind the middle, spongy at the bottom; medial fovea in the form of a very minute, deeply impressed puncture, circular, very near the basal line, bottom not spongy. Elytra at base slightly narrower than the prothorax; sides strongly divergent posteriorly, three-fourths longer than the width at base, and rather strongly arcuate; together transversely truncate behind; apical angles very slightly produced posteriorly, disk very convex, highly polished; two longitudinal striae upon each elytron are very distinct. Dorsal segments strongly margined; surface highly polished, first segment having two short, minute, elevated carinae, which diverge from the extremities of a transverse ciliated patch, next to the elytra; first segment as long as the next two together. Last ventral segment having a large, transversely oval impression, distinctly defined, though rather shallow, last dorsal emarginate at tip, emargination evenly rounded, and about three times as wide as deep. Last joint of maxillary palpi nearly as long as the first three together, robust, and finely acuminate. First joint of posterior tarsi rather short, second but slightly longer than the third. General color bright rufous, more or less clouded with castaneous, abdomen much darker, nearly piceous-black. Length 1.4 mm.

Detroit, Michigan (Schwarz).

This fine species appears to belong near *rubicunda*. The last ventral segment is very broadly emarginate in the latter, and is narrowly and rather strongly so in the present species. It should, perhaps, come just before *trigona* in Dr. LeConte's latest tabular arrangement of this genus.

B. inopia n. sp.—Form very robust. Pubescence very short, evenly distributed, recumbent, pale piceo-cinereous, slightly more sparse on the prothorax and longer on the abdomen. Head as broad across the eyes as long; inter-antennal carina rather distinct, angulated anteriorly; immediately behind this there is a very large, transversely oval, somewhat strong and distinctly defined impression; on a line through the middle of the eyes, there are two distinct, rather widely separated, circular, impressed foveae; interocular surface polished and impunctate; antennae one-half as long as the body, basal joint very slightly larger than the second, third distinctly longer, much more slender, equal in length to the fifth, fourth distinctly shorter, fourth, sixth, and seventh joints equal, eighth smallest, slightly longer than wide, cylindrical, ninth slightly thicker and more clavate than the eighth, tenth nearly twice as wide as the ninth, as broad as long, eleventh as long as the three preceding joints together, nearly twice as long as wide, obliquely

conoidal; labrum very small, twice as wide as long, not emarginate. Prothorax as wide as head; base very slightly longer than apex; slightly broader than long; sides strongly and evenly arcuate; lateral foveae large and circular, median basal fovea very minute, nearly obsolete; disk very convex, polished, impunctate. Elytra at base distinctly wider than the prothorax; sides rather strongly divergent posteriorly, distinctly longer than the width at base, evenly and somewhat strongly arcuate; together almost transversely truncate behind, slightly sinuate in the middle; disk impunctate, evenly convex; two distinct, finely impressed striae extend nearly throughout the length on each elytron, one very close to the suture, the others, beginning at the base, slightly nearer the humeri than the suture, are strongly arcuate externally, and approach the suture toward the apices; suture one-third longer than the width at base; humeral angles rounded. Abdominal segments strongly, though narrowly margined, impunctate, polished; strongly convex, first segment nearly as long as the remainder together. First joint of the posterior tarsi very short, second much longer than the third. General color rufotestaceous, transverse band at apices of elytra, slightly darker than the remainder of the disk. Length 1.2 mm.

Sand Point, Florida; February (Schwarz).

From *tomentosus* this species differs by having distinct impressions on the head. The first segment has, at the base, two very short feeble distant carinae which are nearly parallel.

CARPOPHILUS.

C. zuni n. sp.—Form elongated, depressed. Pubescence moderately long, very fine, recumbent, sparse, more plentiful toward the borders of the elytra. Color above dark piceo-castaneous, beneath same except the abdomen, legs, oral organs, inflexed sides of the pronotum and antennae which are paler and more rufous. Head broader across the eyes than long; interocular surface feebly convex, minutely punctulate and rugulose, shining; labrum deeply cleft, bilobed; supra-antennal tuberculations moderate; near them there are very feeble impressions in the interocular surface; eyes small, nearly semicircular; antennae as long as the prothorax, first joint large, feebly elongated, second shorter, scarcely one-half as wide, suddenly enlarged at its distal extremity, third nearly as long as the second, much less robust, joints four to six much shorter, nearly cylindrical, sub-equal, seventh sub-globular, eighth smaller, slightly transverse, joints of club abruptly very large, strongly flattened, very minutely pubescent; antennal grooves well developed; extreme tip of maxillary palpi black; mentum minutely and trapezoidally emarginate. Prothorax one-half wider than long, width at base and apex equal; sides arcuate, sinuate just before the basal angles; anterior angles acute, posterior nearly right; disk evenly and very moderately convex, minutely, feebly, and very closely punctulate; sides finely margined; lateral borders strongly reflexed. Scutellum large, cordate, acute. Elytra at base as wide as the prothorax; sides parallel, very feebly arcuate; together broadly, roundly, and rather strongly emarginate behind; suture nearly three-fourths longer than the pronotum; surface feebly convex, finely

and feebly punctulate; margin reflexed as in the prothorax, but much more narrowly and acutely. Dorsal surface of the last ventral segment having three strong, posteriorly convergent, rounded carinae; last segment and the posterior two-thirds of the penultimate exposed. Legs short and robust; terminal joints of tarsi very slender, longer than the preceding joints together. Length 3.1 mm.

Arizona (Morrison).

The reflexed margins of the pronotum and elytra render this a very distinct and easily recognized species.

Although I believe the type specimen to be a male, there is no trace of the additional ventral segment of the abdomen mentioned by Dr. Horn in his revision of the Nitidulidae; however, the formation of a new genus seems scarcely warrantable. I see no mention of the very distinct dorsal ridges of the last abdominal segment, in any of the descriptions of the species of *Carpophilus* in the above-mentioned work.

EPURÆA.

E. papagona n. sp.—Nearly twice as long as wide, moderately convex, piceo-flavate in color; pubescence fine, moderate in length, evenly distributed, recumbent, rather sparse. Head much wider than long; interocular surface very feebly and evenly convex; labrum twice as wide as long, strongly and acutely emarginate in the middle anteriorly; eyes moderate in size, nearly semicircular, coarsely granulated; antennae as long as the width of head, third and fourth joints very slender, the former much the longer, fifth much more robust, sixth slightly elongated, seventh sub-globular, eighth very short and transverse, club very large, flattened, nearly one-third as long as the entire antenna. Prothorax twice as wide as long, wider anteriorly than the head; sides moderately divergent posteriorly and evenly arcuate to a point one-fifth the length from the base, where they become convergent and strongly sinuate; anterior and posterior angles prominent; basal margin transverse and nearly straight; disk feebly and evenly convex, slightly reflexed at the sides. Scutellum much broader than long, triangular. Elytra at base as wide as the prothorax; sides parallel and feebly arcuate for two-thirds their length, then slightly convergent; each elytron very obtusely rounded behind; disk rather strongly convex at the sides, feebly and narrowly reflexed along the exterior edges. Legs moderate, of same color as the body, somewhat slender; last joint of the posterior tarsi as long as the first two together. The prosternum is depressed behind the coxae, and prolonged backward in a spatula-like process, which is wider than long and ciliate posteriorly. The punctures of the entire dorsal surface of the body are rather close, circular, clearly defined but very shallow, variolate; the punctures are uniformly setigerous. Length 2.5–2.8 mm.

Arizona (Morrison).

The sides of the pronotum are convergent and sinuate near the basal angles to an unusual degree.

ENNEARTHRON.

E. californicum n. sp. *Mal.*.—Form elongated, nearly cylindrical, sides parallel. Pubescence excessively short, erect, rather sparse, evenly distributed; pale picco-flavate in color. Head moderate, trapezoidal, distinctly wider than long; clypeus strongly reflexed anteriorly and distinctly emarginate; interocular surface impunctate, having in the middle a small feeble tuberculation; eyes small, very prominent, more convex posteriorly; antennae as long as the width of prothorax, pale picco-flavate, first joint robust, oval, second slightly smaller, third much narrower and longer, nearly as long as the next three together, club large, loose, joints of equal width, increasing in length, last joint strongly flattened; labrum small, very pale, not emarginate. Prothorax very slightly longer than wide, much narrower anteriorly than posteriorly, very slightly constricted behind; sides evenly arcuate; base broadly and feebly arcuate; anterior angles very broadly rounded, posterior right; disk very convex, prolonged anteriorly in a very thin process, more than three times as wide as long, which is strongly and roundly emarginate anteriorly, giving the appearance of two short rounded teeth; entire pronotum minutely, distinctly, closely, and very evenly punctate. Scutellum small, wider than long, triangular. Elytra at base very slightly narrower than the prothorax; humeral angles well developed; sides parallel and feebly arcuate; together three-fourths longer than the pronotum, very evenly rounded behind; disk very convex, uniformly, feebly, closely, and rather confusedly rugulose. Legs short and robust. Body above and below uniformly of a very dark blackish-castaneous; legs, gula, upper surface of head pale reddish-testaceous.

Female.—Clypeus evenly rounded anteriorly, very feebly reflexed; surface of head feebly and very minutely punctulate, without the tubercle of the male, and, in its place, a very feeble impression. Prothorax without the anterior corniform prolongation, evenly arcuate anteriorly, distinctly longer than wide. Elytra at base as wide or just perceptibly wider than the prothorax. Otherwise nearly as in the male. Length 1.6–1.8 mm.

This species appears to be distinct from the *Cis vitulus* of Mannerheim. The following is the description of that species as given by him in the Bulletin of Moscow:—

“*Cis vitulus*: Oblongus, fusco-piceus, punctulatus, pube brevissima rigida adpersus, capite excavato, margine antico quadridentato, thorace apice cornubus duobus antrorsum porrectis armato, antennis pedibusque rufo-testaceis.

“Long $1\frac{1}{3}$ lin., lat. $\frac{2}{3}$ lin. California.”

It will be seen, if we analyze this very abbreviated diagnosis, that the only characters which are of any positive value, differ very greatly from the corresponding ones in the insect under consideration.

The color of Mannerheim's species appears to be much paler, and he describes it as oblong, while *californicum* is decidedly elongated.

The words, "*thorace apice cornubus duobus antrorsum porrectis armato*," convey the idea that there are two distinct horns, similar to those observed in *Ceracis*, while, as can be seen from the description, this process in *californicum* is rather a thin, transverse, semi-erect lamina, which is deeply emarginate at the apex and very short. The length of *Cis vitulus* is given as twice the width, while in the present species the length is two and three-fourths times the breadth.

Finally, and especially the head being 4-dentate anteriorly in Mannerheim's insect, leads me to believe that it may even belong to a different genus. We are, therefore, seemingly brought to the conclusion, that, if the description of that author is of any value at all, it must be that of some other species than the one described above.

The species seems to resemble *E. Mellyi* of Mellié; it is, however, much larger, and differs in many minor characters.

It occurs in California, and is found abundantly in the parasitic fungus of the laurel.

E. unicolor n. sp. *Male*.—Form rather elongated, cylindrical, sides parallel. Pubescence excessively short, rather sparse, erect, evenly distributed, somewhat pale and scarcely visible. Head wider than long; interocular surface concave; anterior margin strongly reflexed into a position nearly perpendicular to the interocular surface; anterior edge somewhat angularly and rather strongly emarginate; labrum very small, nearly as long as wide, rounded in front. Prothorax slightly broader than long, very feebly constricted at the base; sides evenly arcuate; anterior angles almost obsolete, posterior right; base very broadly, feebly, and evenly arcuate; disk very convex, very minutely reticulated, finely, distinctly, and very evenly punctate; anterior portion prolonged in a process nearly as long as wide, so deeply cleft anteriorly as to give rise to two divergent horns of circular cross-section, slightly rounded at tip, and nearly twice as long as broad at base. Scutellum slightly wider than long, triangular, sides feebly arcuate. Elytra at base as wide as the prothorax; sides parallel and very feebly arcuate; together nearly twice as long as the pronotum, exclusive of the horns; broadly rounded behind, more acutely so at the immediate apex; disk very finely punctulate, and, in addition, confusedly and feebly rugulose, polished. Legs very short and robust; last joint of anterior tarsi twice as long as the preceding joints together. Antennae very short, scarcely as long as the width of head, club large, first joint distinctly larger than the second, third as long as the next two together, fourth, fifth, and sixth joints nearly globular, very small, fifth slightly the largest, seventh and eighth joints much broader than long, last nearly as long as wide and flattened. Entire body piceous-black, legs very dark rufo-piceous, antennae and oral organs piceo-testaceous, club of antennae slightly darker, central portions of gula of a slightly more reddish tint than the legs. The first ventral segment bears in the middle, what appears to be a very minute ciliated tuberculation. The tibiae are not dentate outwardly at the tip, but are provided with a row of very short, robust spines of a much paler tint. Length 1.3 mm.

Willeys Point, Long Island; three specimens ♂.

The female is unknown. The specimens were found in the lamellar parasitic fungus, growing upon the bark of an old chestnut log in a thick wood. The species is very distinct, and does not satisfy any description which is accessible to me; I therefore feel warranted in describing it as new. The abdominal segments are almost exactly equal in length.

LACHNOSTERNA.

L. subpruinosa n. sp.—Form moderately elongated and depressed, about twice as long as wide. Color fuscous, slightly paler beneath, elytra slightly paler than the pronotum, and having a very feebly pruinose appearance. Head twice as wide as long, punctures rather evenly distributed, separated by slightly more than their own diameters; epistoma broadly and feebly bilobed, episternal suture distinct and broadly bisinuate; club of antennae in its greatest dimension longer than the entire preceding portion. Prothorax slightly more than three-fourths wider than long, glabrous, fully one-half wider at base than at apex; sides strongly divergent and nearly straight to the middle, then parallel and feebly sinuate to the posterior angles; anterior and posterior angles acute; apex transverse and feebly undulated, base broadly and feebly arcuate; disk rather strongly convex; narrowly margined along the sides and anterior edge, not margined posteriorly; punctures very small, impressed, rather evenly distributed, generally separated by more than twice their own widths. Scutellum wider than long, parabolic. Elytra at base very slightly wider than the prothorax; sides very slightly divergent and very feebly arcuate for three-fourths the length from the humeri; disk two and one-half times as long as the head and prothorax together, nearly one-half longer than wide, very abruptly and obtusely rounded behind; very narrowly margined at the sides, border becoming extinct posteriorly; surface finely and irregularly punctured, punctures impressed, setigerous, and separated by from one to five times their own widths; longitudinally costate along the suture, more strongly so posteriorly; each elytron has in addition several very feeble, narrow, and indefinite sub-oblique or longitudinal costae. Legs rather long; posterior tarsi much longer than the tibiae, first and fourth joints shortest, nearly equal in length. Pygidium much broader than long, irregularly and finely punctate. Length 14.5 mm.

Atlantic States.

The male has a rather feeble impression on the last ventral segment, which extends to a part of the penultimate. The pubescence of the mesosternum is long and dense. The species bears a remote resemblance to *micans* Lec., but is much less elongated, paler in color, and much less pruinose.

L. fusca (Fröhl).—Great and apparently unnecessary confusion exists in regard to this and closely allied species, and I find at least

five forms united under this name in my cabinet. It is somewhat difficult to decide upon characters which are specific and not sexual, and since the antennae differ so greatly with sex, we are compelled to throw out this organ, generally so valuable for purposes of classification. If we examine attentively the males and females of a very well-marked species, in which there can be no suspicion of mixture, we find that the claws of the tarsi do not vary with sex, as can be observed in *ilicis* (Knoch); also that, if we imagine a tangent line to be drawn to the curve of the epistomal edge at the points where this line meets the eyes, the degree of convergence of these tangent lines is almost exactly constant for the same species, irrespective of sex; other characters which are almost constant are the proportional lengths of the palpal joints, the punctuation and sculpture of the body, and the shape of the pygidium. With these premises we can formulate the following differences for a few distinct species which have been combined under the name indicated above.

L. anxia Lec.—This is distinct by reason of the peculiar formation of the epistoma, the above-mentioned tangents being parallel; the pygidium is very short in proportion to its width; the sculpture is coarse and rough; the inner tooth of the unguis is very long and strong, nearly equal to the remainder of the claw.

L. Drakei Kirb.—Body very robust, rather depressed: sculpture very even, fine; general appearance smooth. The tangent lines of the clypeus mutually make a very obtuse angle, and the epistoma anteriorly, instead of being broadly sinuate, is notched in the form of an acute cusp, and is more properly bilobed. This is a distinct species in facies.

L. consimilis Lec.—The facies of this species is different from that of *fusca*, being much more elongate; the sculpture is smoother and finer; the epistomal tangent lines make a very obtuse angle, meeting at a distance in front of the clypeus scarcely greater than the length of the head.

L. fusca (Fröhl).—The sculpture is rough and uneven, more so than in any other of this group, except *anxia*; the claws are also very different from those of the three preceding forms, the inner tooth being very small and the remainder of the claw projecting very far beyond it, and with a less arcuate curve; the whole claw is also more slender. The epistomal tangents intersect at a distance from the anterior margin about equal to the length of the head and prothorax together.

The series of specimens of these species which are before me are scarcely large enough to enable me to define the species properly, but enough has been mentioned to show that the various forms should not be combined until a series can be formed, showing unmistakably a gradual progression from one species to another, in all characters

pointed out above to be of systematic importance. Besides the differences noted above, there are variations to be observed in the length of the antennal club in the males, and in the structure of the labial and maxillary palpi.

There is another form in which the sculpture is much smoother than in *fusca*, and which differs from that species in the much narrower and more feebly toothed anterior tibiae; also in the smaller inner spine of that member.

EURYMETOPON.

E. piceum n. sp.—Form moderately elongated, very convex, sides nearly parallel; setae of elytra so fine and sparse as to be scarcely discernible. Body above and beneath rather pale rufo-piceous, elytra slightly paler than the head and prothorax. Head much broader than long; anterior margin very broadly and evenly arcuate; interocular surface rather convex posteriorly, then rapidly declivous to within one-third the length of the anterior margin, where it becomes nearly plane and feebly declivous; very coarsely, rather closely and unevenly punctate, punctures round and variolate; supra-ocular longitudinal ridges very acute and distinct; antennae as long as the width of prothorax, second joint slightly more than one-half as long as the third, third and fourth narrower and equal in length, remaining joints nearly equal in length, last three flattened and slightly broader. Prothorax four-fifths broader than long; base very broadly and just perceptibly angulate posteriorly, just visibly longer than the apex; the latter transverse and straight in the middle, slightly sinuate near the apical angles, slightly longer than the width of head; sides most strongly arcuate just in advance of the middle, nearly straight near the basal angles, much more convergent near the anterior angles; disk very convex, narrowly margined at the sides, margined along the base, border becoming much narrower toward the basal angles; coarsely and very irregularly punctate; near the sides the punctures are very large, somewhat confluent, shallow, and variolate, in the middle they are very much smaller, round, rather deeply impressed, and very sparse. Scutellum very small, sides at first divergent posteriorly, then very broadly angulate behind. Elytra at base as wide as the pronotum; sides just perceptibly divergent and feebly arcuate for three-fourths the length; disk somewhat acutely rounded behind, three times as long as the prothorax, very convex, evenly punctate, punctures round, shallow and variolate, small, and separated generally by three to four times their own widths; toward the sides, and more especially toward the humeri, the punctures become much larger and closer; the entire surface is also excessively feebly and transversely rugulose. Under surface of the abdomen very sparsely and minutely punctulate toward the base, much more strongly, coarsely, and closely so on the last segment. Legs moderate; tarsi long, posterior femora rather rapidly narrowed toward the coxae; first joint of the posterior tarsi equal in length to the next two together, distinctly shorter than the fourth. Prosternum deeply and irregularly pitted. Length 6.2 mm.

Arizona (Morrison).

The mentum in this species is very large, strongly rounded anteriorly, with a very short, rounded, and somewhat feeble emargination at the immediate apex; its exposed surface is deeply and closely punctate. There is but one specimen before me, but it appears to be very distinct from any with which it has been compared. The punctures of the elytra, although equidistant among themselves, can, in the middle of the disk, be very readily caused by the eye to arrange themselves in striae-like rows.

E. emarginatum n. sp.—Form rather elongated, convex; pubescence almost entirely absent from the head and pronotum, on the elytra it consists of erect, coarse, evenly distributed, and sparse setae, which are piceo-cinereous in color; general color of the body dark piceous-brown, nearly black above, very slightly paler beneath, antennae and legs extremely dark rufotestaceous. Head moderate, slightly wider than long; interocular surface very convex between the eyes, then broadly declivous, becoming transversely and very feebly ridged just behind the anterior margin, the latter squarely truncate in the middle, rounded at the sides; punctures of head very sparse in the middle, denser toward the sides, very dense and deeper near the anterior margin; supra-ocular ridges rather short but very distinct; labrum just visibly emarginate in the middle, provided anteriorly with a dense fringe of porrected setae, broadly rounded at the sides; antennae as long as the anterior width of prothorax, third joint just visibly longer than the fourth, joints five to seven shorter, sub-equal, joints eight to ten wider, flattened, sub-triangular, increasing in size, ninth and tenth notched at the apex, eleventh longer than wide, narrower, regularly oval. Prothorax nearly twice as wide as long, base just perceptibly longer than the apex, evenly and feebly arcuate at the sides, broadly and very feebly emarginate throughout anteriorly, very feebly trisinate posteriorly; anterior and posterior angles very acute; disk very convex, feebly and rather closely punctate; at the sides the punctures become longer, more shallow, closer, and more variolate. Scutellum as in *E. piceum*. Elytra at base just perceptibly wider than the base of the pronotum; sides very feebly divergent and nearly straight for three-fourths of the length from the humeri; disk very convex, more than three times as long as the prothorax, rather acutely rounded behind, very feebly and narrowly impressed on the suture toward the base, feebly and minutely punctate; punctures sparse, nearly evenly distributed, easily caused to form striae-like rows by the eye, very feebly impressed; the entire disk is also finely, rather strongly, and transversely rugulose. Under surface of the abdomen finely punctate, much more closely so on the last segment; prosternum coarsely pitted, much more sparsely so in the middle. Legs moderate; first and last joints of the posterior tarsi equal in length, slightly longer than the second and third together. Length 6.0 mm.

Arizona (Morrison).

The mentum of *emarginatum* is very large, coarsely, and closely punctured, broadly rounded anteriorly, except for a space at the apex

equal to nearly one-half its width at base, which is broadly, evenly, and rather feebly emarginate. The front tibiae are strongly prolonged anteriorly in both this species and in *piccum*; in the latter species the interior terminal teeth are slightly curvate, and are arranged in a right line with the point of juncture of the first tarsal joint; in the present species, however, they are in a straight line, which is at right angles to that position.

In the present chaotic state of this portion of the Tenebrionidae it seems scarcely warrantable to generically separate these species, so very similar in facies, on such a trivial character. The punctures of the head in the above-described species are very shallow and variolate.

E. papagonum n. sp.—Form rather strongly elongated, convex; pubescence of elytra consisting of exceedingly short and sparse, erect setae, which are rather fine and arranged serially; general tint of upper surface picuous-black, under surface slightly paler, rufous, legs and antennae rufous. Head distinctly broader than long; punctures of upper surface round, nearly evenly distributed between the eyes, more closely crowded anteriorly, variolate, separated usually by their own widths; anterior margin transverse or just perceptibly emarginate in the middle, broadly rounded at the sides; labrum transversely truncate in the middle, sides divergent and slightly arcuate, lateral angles rather pronounced; supra-ocular ridges strongly developed and curving outward anteriorly; antennae distinctly longer than the anterior width of prothorax, third joint distinctly longer than the fourth. Prothorax four-fifths wider than long; anterior margin just perceptibly shorter than the base, the latter transverse and distinctly trisinate, the former just perceptibly emarginate, sinuate near the apical angles; anterior and posterior angles very acute; sides feebly arcuate, straight near the apical angles; disk very convex, rather distantly and finely punctate in the middle, where the punctures are impressed, becoming much larger, shallower, and elongated at the sides, where they are closely crowded, variolate, and scabrous; pronotum margined anteriorly and posteriorly, narrowly reflexed at the sides; edges acute. Elytra at base slightly wider than the contiguous pronotum; sides nearly parallel and almost straight for three-fourths of the length from the humeri; disk very convex, more than three times as long as the pronotum, rather acutely rounded behind, minutely, feebly, and evenly punctate in the middle, punctures arranged in rows, larger and closer at the sides, shallow, round, and variolate; the surface is also minutely and irregularly creased, minutely granulose, minutely undulated, and, at the sides, covered with minute elevated points; shining. Under surface of the abdomen minutely punctate, very closely so on the last segment; prosternum coarsely punctured. Legs rather long; first joint of the posterior tarsi distinctly shorter than the last, longer than the second and third together, the latter equal in length. Length 6.5 mm.

Arizona (Morrison).

The mentum of this species is broadly rounded in front, with exception of a sinuation at the immediate apex, equal in length to one-

fourth its width at base, which is rather strong; the exposed surface is strongly punctured and more distantly so than in either *emarginatum* or *piccum*; the terminal spurs of the anterior tibiae are arranged as in the former species.

E. carbonatum n. sp.—Form moderately robust and convex, sides parallel; body devoid of setae in the middle, at the sides of the elytra there are a few widely scattered, robust hairs; body black above, beneath the abdomen is nearly black, the anterior portions paler, legs, antennae, and mentum paler. Head much broader than long, punctures rather large, round, variolate, evenly distributed, separated by less than their own widths; lateral sutures of epistoma distinct; supra-orbital carinae well developed; anterior margin broadly and extremely feebly emarginate, sides broadly rounded; labrum rather feebly but distinctly emarginate, sides broadly rounded; antennae moderate, second joint two-thirds as long as the third, third one-third longer than the fourth. Prothorax nearly twice as wide as long; anterior margin very slightly shorter than the base, the latter nearly transverse, distinctly trisinate, apex very feebly emarginate; sides feebly and evenly arcuate throughout; anterior and posterior angles acute and prominent; disk distinctly margined anteriorly and posteriorly; sides narrowly reflexed, edges acute; punctures in the middle rather deeply impressed and irregularly scattered, toward the sides becoming larger, more elongated, closer, more shallow, and scabrous. Scutellum very minute. Elytra at base very slightly wider than the contiguous pronotum; sides parallel and almost exactly straight for three-fourths the length from near the humeri; disk broadly convex, acutely rounded behind, more than three times as long as the pronotum; punctures very small, shallow, round, variolate, arranged in very closely approximate rows, rather more distant in the rows than between them, near the suture the rows become somewhat broken up and irregular; the surface is minutely undulated, and near the suture the transverse creases are very indistinctly apparent; it is not visibly granulated, shining. Under surface of abdomen finely punctate, punctures of the last segment much more closely crowded, very dense; prosternum sparsely, coarsely, and evenly punctate. Legs moderate; posterior tarsi shorter than the tibiae, first joint slightly longer than the fourth; first joint of the anterior tarsi longer than the next two together. Last joint of maxillary palpi flattened and strongly securiform. Length 8.0 mm.; width 2.8 mm.

Arizona (Morrison).

The mentum is emarginate at apex; the emargination is more acutely rounded at bottom than at the sides, is rather strong, and one-third as long as the width of the mentum at base; the anterior angles are broadly rounded, the exposed surface is strongly and rather finely and closely punctate; it is also rather feebly rugulose. Mandibles strongly and unequally notched at tips. The terminal spurs of the anterior tibiae are straight, strong, equal, and arranged as in *emarginatum*.

E. sculptile n. sp.—Form slender, nearly semi-cylindrical, sides parallel; erect setae of elytra excessively short and sparse, scarcely visible; color of upper surface piceous-black, beneath very dark piceous-brown, nearly black, with a tinge of rufous; legs and antennae just perceptibly paler. Head moderately convex, transversely and feebly impressed in front of the eyes; anterior margin transverse, sides rounded; punctures somewhat deeply impressed and scattered in the middle, closer elsewhere; supra-orbital ridges distinct; labrum squarely truncate in front, sides widely divergent posteriorly and nearly straight, anterior angles well developed; antennae moderate, third joint much longer than the fourth. Prothorax three-fourths wider than long; sides strongly and evenly arcuate; apex distinctly shorter than the base; apical and basal angles very acute and prominent; apex feebly emarginate in the middle, nearly throughout its width, base distinctly trisinate, nearly transverse; disk very convex, distinctly margined anteriorly and posteriorly; sides narrowly reflexed, edges acute; punctures small and impressed in the middle, larger, shallow, oval, somewhat confluent, and scabrous at the sides. Scutellum minute and transverse, angulate behind. Elytra at base slightly wider than the contiguous pronotum; sides parallel and very feebly arcuate for two-thirds the length posteriorly; disk very convex, acutely rounded behind; punctures arranged in rows, rather distant, moderately large, very shallow, variolate, round; there are also several elongated, striae-like impressions near the suture, and the surface is minutely, irregularly, and very distinctly creased, minutely undulated, and very minutely granulated; sculpture more rough near the sides, which are very feebly reflexed. Under surface of the abdomen finely and nearly evenly punctate; prosternum more coarsely punctate. First joint of the posterior tarsi scarcely longer than the next two together, distinctly shorter than the last. Length 6.0 mm.; width 2.3 mm.

Arizona (Morrison).

The sculpture of the elytra is very composite and strongly developed. The mentum is emarginate at apex through a length equal to about one-third its width at base; emargination most strongly rounded at the bottom, anterior angles well rounded; exposed surface strongly punctate and transversely rugulose. The prothorax is much more strongly arcuate at the sides and more convex than in *papatgonum*, which this species somewhat resembles; it is more slender than that species.

E. dubium n. sp.—Form rather robust, sides parallel; moderately convex; head and prothorax glabrous, elytra having very sparse, robust, erect setae, which are more plentiful at the sides; color piceous-black above and beneath, legs rufopiceous, antennae and palpi same. Head much broader than long; interocular surface moderately convex, moderately declivous in front of the eyes, transversely and feebly ridged just behind the anterior margin; the latter broadly truncate, rounded at the sides; punctures round, varying in size, evenly distributed, and distant their own widths; between the eyes, near the anterior margin, the sculpture becomes very confluent and

rough, punctures variolate; labrum very feebly emarginate anteriorly, sides broadly rounded, fringe of setae very strong, setae fulvous; supra-orbital ridges acute and distinct; antennae moderate in length, rather slender, third joint slightly longer than the fourth. Prothorax distinctly wider at base than at the vertex, where it is much wider than the head; base generally arcuate, distinctly and strongly trisinate, apex very broadly and feebly emarginate; sides most strongly arcuate in front of the middle, slightly convergent posteriorly, feebly sinuate anteriorly; anterior angles very slightly rounded, posterior slightly obtuse, but not at all rounded; pronotum margined anteriorly and posteriorly, narrowly reflexed at the sides, edges acute; disk moderately convex, rather finely and closely punctured in the middle, punctures becoming larger and closer toward the sides. Elytra at base slightly wider than the contiguous pronotum; sides just perceptibly divergent posteriorly and nearly straight for three-fourths the length from the humeri, disk nearly three and one-half times as long as the pronotum, rather strongly convex, narrowly reflexed at the sides, somewhat acutely rounded behind; rather strongly, closely, and minutely punctate in the middle, punctures much larger at the sides, in the middle they are slightly more distant in the rows than the distance between the latter; the surface is, in addition, very feebly undulated, minutely and irregularly creased, minutely granulated, and, toward the sides, having numerous elevated points. Under surface of abdomen strongly convex, very finely punctate, very closely so on the last segment; prosternum strongly and closely pitted. Legs rather long; posterior tarsi as long as the tibiae, first joint as long as the fourth, longer than the second and third together, second longer than the third. Length 9.2 mm.; width 3.5 mm.; size very uniform.

Arizona (Morrison).

The mentum is strongly and roundly emarginate at apex, through a distance equal to nearly one-third its width at base; the exposed surface is strongly punctate posteriorly, and obliquely rugulose anteriorly. The spurs of the anterior tibiae are as in *emarginatum*.

EMMENASTUS.

E. nanulus n. sp.—Form robust, very convex. Entire body covered very sparsely with extremely short, semi-erect setae, which are almost invisible. Upper surface very dark piceous-brown, nearly black, legs and under surface much paler, piceo-rufous, the former slightly the paler. antennae still paler, piceo-rufous. Head much broader than long; anterior margin transverse and straight, angles broadly rounded; interocular surface rather convex, deeply, very closely, rather coarsely and roughly, though evenly punctate; eyes small, very feebly convex; antennae as long as the width of prothorax, second joint two-thirds as long as the third and as long as the fourth, joints five to eight shorter, successively and feebly decreasing in length, last three joints strongly flattened, ninth and tenth broader than long, sub-triangular, eleventh slightly longer than wide, oval. Prothorax four-fifths wider than long; anterior and posterior margins straight and transverse, the former about one-fifth shorter, slightly longer than the width

of head; sides evenly and moderately arcuate throughout; disk very convex, strongly and rather closely punctured, punctures very evenly distributed, distant generally by nearly twice their own widths, deeply impressed. Scutellum very small, sides short and nearly parallel, broadly angulate behind. Elytra at base as wide as the pronotum; sides parallel and rather strongly arcuate; together acutely rounded behind; disk about two and one-half times as long as the pronotum, very strongly convex and having three systems of sculpture combined: first, striae of small, deeply impressed punctures, with smaller impressed punctures scattered sparsely and without order over the intervals; second, a very minute and even granulation over the entire surface; third, a system of very irregular, feebly impressed, and somewhat transversely arranged creases. Under surface of the abdomen irregularly and distantly punctate, punctures round and rather feebly impressed; prosternum finely and transversely rugulose. Legs moderate, femora flattened; first joint of the posterior tarsi longer than the next two together, very slightly shorter, though more robust than the last joint. Length 4.6-5.6 mm.

San Diego, California.

This species seems to be rather abundant.

CONIONTIS.

C. elliptica n. sp.—Form moderately robust, sides parallel; upper surface glabrous, with exception of a few excessively minute setae near the border of the elytra; black throughout, elytra slightly more lustrous than the pronotum. Head broader than long, sub-triangular, minutely and rather closely punctured, punctures increasing in density to within a short distance of the anterior margin; epistoma broadly and evenly emarginate anteriorly, epistomatic suture distinct; labrum strongly emarginate in the middle anteriorly, lobes evenly rounded; antennae three-fourths as long as the pronotum, slender, filiform, second joint scarcely one-half as long as the third, joints four to ten sub-equal, shorter, last joint still shorter; mentum broadly and deeply emarginate. Prothorax at base two and three-fourths times as wide as the head; sides just perceptibly convergent and nearly straight for three-fourths the length from the basal angles, then rather abruptly and strongly rounded to the apical angles; apex broadly emarginate, base transverse, broadly and feebly sinuate toward the basal angles, the latter rather prominent and acutely rounded; anterior angles acute, narrowly rounded; disk two-thirds wider than long, strongly and evenly convex, minutely and distantly punctate, the punctures becoming very slightly closer toward the sides; very minutely and conspicuously granulated; pronotum narrowly reflexed at the sides, narrowly margined anteriorly, edges strongly rounded; surface not margined posteriorly. Scutellum triangular, broader than long. Elytra as wide as the prothorax; sides parallel and nearly straight for two-thirds the length posteriorly; disk very convex, acutely rounded behind, two and one-half times as long as the pronotum; surface minutely rugulose or undulated, granulations rather indistinct, punctures minute, strong, evenly distributed, coarser, and more distant than those of the pronotum,

arranged without order; near the suture a few indistinct transverse creases are visible; sides narrowly reflexed, edges acute; epipleuræ narrow and continuous throughout the length. Legs slender; first joint of the posterior tarsi as long as the remaining ones combined. Length 12.0-14.0 mm.; width 5.5-6.5 mm.

San Diego, California.

In some specimens, ♂, the sides are almost exactly parallel, while in the larger specimens, ♀, the sides are just perceptibly divergent from near the apical pronotal angles to a point on the elytra two-thirds their length from the humeri. The males, though smaller, have a notably larger scutellum.

The differences between this species and *robusta* Horn are as follows:—

In the former the sides of the pronotum for two-thirds the length from the posterior angles are feebly convergent, while in the latter they are generally slightly divergent. In the former the terminal spurs of the tibiae are more slender and the elytral sculpture is very much smoother. In the latter the form is very much more robust and slightly more depressed. In the former the head is relatively smaller and the sides of the elytra are more narrowly reflexed. There are also great differences in the length and sizes of the outer antennal joints. The comparisons have been made directly with Dr. Horn's type of *robusta* which appears to be a somewhat rare species.

ELEODES.

E. arcuata n. sp.—Form robust; body shining, very finely sculptured; intense black throughout, glabrous. Head moderate in size; sides nearly parallel to a point considerably beyond the eyes, then rapidly convergent and straight to the angles of the epistoma; epistoma broadly and evenly emarginate, posterior suture distinct and strongly bisinuate; interocular surface broadly and evenly convex; between the eyes the punctures are very fine and irregularly scattered, gradually increasing in size and density anteriorly, on the epistoma they are very close and much larger; labrum very roughly, closely, and deeply sculptured, narrowly and deeply emarginate anteriorly; mentum slightly wider than long, acutely and evenly rounded anteriorly, deeply bi-impressed on the exposed surface; last joint of maxillary palpi nearly as wide as long, strongly securiform, flattened, penultimate joint much smaller. Prothorax twice as long as the head, distinctly wider than the same anteriorly; base one-fourth longer than the apex; sides strongly and nearly evenly arcuate, most strongly so just in advance of the middle, very feebly and minutely sinuate just in advance of the posterior angles; apex broadly emarginate, base very broadly and feebly arcuate, entire; anterior angles acute, posterior obtuse, but not at all rounded; disk as long as wide, moderately convex, minutely granulated, very sparsely and somewhat irregularly punctate, punctures very minute. Scutellum wider

than long, impunctate, and highly polished. Elytra at base as wide as the contiguous pronotum; sides parallel for four-fifths the length from the humeri, evenly and very strongly arcuate; disk very obtusely rounded behind when viewed vertically, two and one-third times as long as the pronotum; surface minutely and regularly creased, very minutely and strongly granulated, rather feebly and minutely punctate; punctures arranged in regular striae, with a single row of smaller punctures between. Under surface of the abdomen very sparsely and feebly punctate, except on the last segment, where they are deep, dense, and setigerous. Legs moderate; tarsi short and robust, second and third joints of the posterior very feebly elongated. Length 13.5–15.0 mm.; width at widest section, which is at the middle of the elytral suture as viewed vertically, 6.4–7.0 mm.

Arizona; two specimens; differences scarcely noticeable.

Regarding the elytral suture of this species as a line in space, its course is seen to be nearly straight to within a very short distance of the elytral apex as viewed vertically, where it is suddenly bent downward, so that at the immediate apex of the elytra, its course makes an angle perceptibly less than a right angle, with its direction at the scutellum. In no other species that I have seen is the sutural line so strongly and suddenly bent posteriorly; there is no tendency to caudal prolongation.

This species is more closely allied to *extricata* Say than any other species in the catalogue, and differs in the following very important characters:—

In *extricata* the intercoxal salient of the first ventral segment is about as wide as the intercoxal salient of the metasternum, while in *arcuata* the first is very much wider than the second, and is relatively much shorter.

In the former species the intercoxal process of the prosternum is very abruptly constricted posteriorly, into an elongated, narrow process, while in the latter it is very gradually and arcuately narrowed posteriorly.

In the former the second joint of the antennae is about one-fifth as long as the third, and is wider than long, while in the latter it is more than one-fourth as long as the third, and is nearly as long as wide.

The elytral punctation in the two species differs in quality to a marked degree; in *extricata* it consists of approximate rows of very approximate punctures, with more widely spaced punctures between the rows; in *arcuata* it consists of widely spaced rows of approximate punctures, with regular rows of much more distant punctures between them.

The form of body is quite different in the two species; that above described greatly resembles *cognata* Hald., if the type of the latter

in Dr. LeConte's collection is to be relied on, and differs from it superficially in the nature of the elytral sculpture, as well as in the relatively more elongated prothorax. I have not had an opportunity to examine it more minutely. If the two should prove identical, it will be a source of surprise that Haldeman's species should have been suppressed and united with *extricata*. The above differences are so marked that it is difficult to conceive of their having been overlooked.

PLATYDEMA.

P. pernigrum n. sp.—Form regularly elliptical, elongated, moderately convex, more than twice as long as wide; glabrous, opaque. Color above deep black, beneath rufous. Head wider than long, somewhat trapezoidal; anterior margin transverse, angles rounded; interocular surface nearly flat, punctures throughout very small, round, deeply impressed, very closely crowded, evenly distributed; antennae slightly shorter than the basal width of pronotum, first four joints reddish-testaceous, joints five to ten black, last joint reddish-testaceous, the outer joints distinctly flattened, joints eight to ten distinctly broader than long; last joint of the maxillary palpi twice as long as wide, as long as the second and third together; mentum slightly longer than wide, narrowed toward the base, anterior angles broadly rounded, feebly emarginate anteriorly, exposed surface very strongly convex in the middle, the summit of the nearly hemispherical convexity bearing a transverse, bilobed, spongy patch; mandibles very strongly bidentate at tip, teeth very acute. Prothorax at base twice as wide as long; base one-half longer than the apex, transverse and straight at the sides, strongly arcuate in its middle third; apex broadly and feebly emarginate; sides evenly and feebly arcuate; anterior and posterior angles slightly rounded; disk broadly and evenly convex, narrowly reflexed at the sides, which are narrowly margined, lateral edges acute; surface most minutely granulate, also evenly and very finely punctulate, punctures very feeble. Scutellum slightly wider than long, acute posteriorly, sides arcuate. Elytra at base as wide as the contiguous pronotum; sides parallel and moderately arcuate for two-thirds their length from the humeri; disk three times as long as the pronotum, rather acutely and very evenly rounded behind; sides narrowly and rather strongly reflexed throughout; surface punctate, punctures round, rather deep, sub-variolate, arranged in rather distant striae, distance of punctures in the rows equal to about one-third the distance between the latter; also very finely, evenly, closely, and feebly punctulate; finally excessively finely granulate. Posterior portion of fourth, and anterior portion of the fifth ventral segments having a deep, transverse, and common impressed groove. Legs moderate; first joint of the posterior tarsi equal to two-fifths the entire length of the latter. Length 6.7 mm.; width 3.2 mm.

Arizona (Morrison).

This species differs from *P. janus* in its much more elongate form; in the color, that of *janus* being usually of a reddish-black above; in

the shape of the mentum, that of *janus* being broader than long; in the punctuation of the head, that of *peruigrum* being much more dense; also in the length of the eye. The antennae and sculpture are almost exactly the same in both. The three specimens of the present species before me do not perceptibly vary.

P. parvulum n. sp.—Form rather elongated, elliptical, twice as long as wide; upper surface polished, dark piceous, under surface slightly paler. Head small; interocular surface strongly declivous, rather feebly tuberculate near each eye: epistoma nearly plane, scarcely declivous, with a very broad, feeble, transverse furrow separating it from the declivous portion, very broadly and feebly swollen in the middle; anterior margin very broadly rounded, nearly transverse in the middle: labrum very broadly rounded, short, punctures between the eyes small, round, feebly impressed, evenly distributed, and separated by nearly twice their own widths: those of epistoma much more distant; surfaces minutely granulate, shining; antennae robust, short, scarcely as long as the width of pronotum, piceous-brown throughout, second joint two-thirds as long as the third, third and fourth equal in length, penultimate joints very strongly transverse. Prothorax at base slightly more than twice as wide as long; base one-half wider than the apex; side feebly and very evenly arcuate; anterior and posterior angles rounded; anterior margin broadly and evenly emarginate, posterior feebly bisinuate, strongly arcuate in the middle; disk with two feeble impressions at the base, moderately convex, minutely, rather evenly and distantly punctate, also minutely reticulated, polished. Scutellum slightly longer than wide. Elytra at base slightly wider than the contiguous pronotum; sides parallel and rather strongly arcuate for two-thirds the length from the humeri; disk evenly convex, slightly more than three times as long as the pronotum, rather acutely rounded behind, feebly striate; striae impressed and very strongly punctate, distance between punctures in striae, slightly more than one-third the distance between the latter; intervals very feebly convex, very minutely, evenly, rather distantly and distinctly punctate, also minutely reticulated, polished. Under surface of the abdomen sparsely and rather feebly punctate, more finely and distantly so on the last segment. Fourth joint of posterior tarsi equal in length to the second and third together, much shorter than the first. Length 3.1 mm.

Willeys Point, Long Island; one specimen, ♂.

This fine little species resembles somewhat a very minute *excaratum*, in which the frontal horns are rudimentary. It is seen, however, to be very distinct by the short antennae, having very strongly transverse outer joints, and by the punctuation of the pronotum. In *excaratum* the penultimate joints are very feebly transverse, and the second joint is relatively very much shorter: the punctuation of the pronotum is much coarser, and the basal impressions are not as strong; the color, also, is deep black. The prosternal episterna are much more feebly and sparsely punctured in *parvulum*.

It also resembles *micans* Horn, but in that species, which is more southern in its habitat, the head is not bituberculate, and the penultimate antennal joints seem to be still more transverse.

P. opaculum n. sp.—Form elliptical, nearly twice as long as wide, very moderately convex; surface above opaque, deep black, beneath dark blackish-fuscous; antennae and legs dark fuscous. Head moderate, slightly wider than long; surface nearly plane, coarsely and closely punctate, more finely and distinctly so anteriorly; anterior margin broadly rounded; labrum very short and broad; antennae uniform in color, as long as the width of prothorax, robust, slightly flattened toward the tip, second joint less than one-half as long as the third, joints three, four, and five decreasing uniformly and very gradually in length; mentum slightly broader than long, broader at apex than at base, sides nearly straight, anterior angles slightly rounded, anterior margin broadly and feebly emarginate, exposed surface feebly convex and having numerous long, blackish, erect setae; maxillary palpi well developed, last joint very robust, slightly shorter than the two preceding joints together, nearly as wide as long, broadly and obliquely truncate at tip, where it is deeply hollowed. Prothorax much more than twice as wide as long; base nearly one-half longer than the apex; sides moderately and very evenly arcuate; anterior and posterior angles slightly rounded, the former obtuse, the latter acute; apex bisinuate and transverse, base bisinuate and strongly arcuate in the middle; disk rather feebly, closely, and evenly punctate; minutely granulate. Scutellum slightly wider than long, apex acute, sides feebly arcuate. Elytra at base as wide as the pronotum; sides parallel and moderately arcuate for three-fourths the length from the humeri; disk evenly convex, more than three times as long as the pronotum, one-half longer than wide, broadly and evenly rounded behind, strongly punctate; punctures round, deeply impressed, arranged in striae-like rows; distance between punctures in the rows, scarcely one-third of that between the latter; intervals flat, very obscurely, excessively faintly, and rather distantly punctulate, also minutely granulate; near the scutellum and the suture there is a very short row of punctures on each elytron. Under surface of abdomen very coarsely and evenly punctate; punctures of last segment much finer. First joint of the posterior tarsi slightly longer than the next two together. Length 3.9 mm.

Pennsylvania, near Philadelphia; one specimen.

P. ruficornis, the only species with which the present one can be compared, is much longer and paler beneath, where it is much more finely punctate; the punctures of the elytral series are much finer, and their distance asunder in the rows is generally four or five times less than the distance between the latter.

DISONYCHIA.

D. pulchra n. sp.—Form rather elongated, elliptical, moderately convex; glabrous; shining. Head broader than long, surface moderately convex,

impunctate; labrum three times as broad as long, rather feebly emarginate anteriorly; eyes large, rather prominent, much shorter than wide, emarginate anteriorly; antennae two-thirds as long as the elytra, robust, nearly black, basal joint slightly paler, very finely pubescent, basal joint as long as the next two together, joints four to ten nearly equal in length, obliquely truncate at their distal extremities, terminal process of last joint acuminate and large; last joints of labial and maxillary palpi subulate and partly enveloped by the penultimate; mentum slightly broader than long, somewhat trapezoidal, surface broadly, feebly, and very evenly convex, edges rounded. Prothorax two and one-third times wider than long; base transverse and nearly straight in the middle half, thence bent slightly anteriorly and straight to the basal angles, which are rounded slightly and very obtuse; apex broadly and evenly arcuate throughout; anterior angles broadly rounded; sides strongly arcuate posteriorly, nearly straight or slightly sinuate near the apical angles; disk impunctate, except under a very high power, when it is seen to be most finely, distantly, and just visibly punctulate, and most excessively finely reticulated; sides flat and porrected; near each basal and apical angle there is a long seta. Scutellum slightly broader than long, triangular. Elytra at base as wide as the contiguous pronotum; sides parallel and rather strongly arcuate for four-fifths the entire length; disk four times as long as the pronotum, obtusely rounded behind, minutely granulated, very feebly, distantly, and evenly punctulate; each elytron having a narrow black vitta along the suture, a medial one nearly twice as wide, which does not attain the elytral tip, and a narrow marginal vitta, just inside the narrow porrected border; the latter and the remainder of the disk red, the margins of the red vittae being paler. Under surface bright rufo-testaceous. Legs moderate, rufous, except the tips of the tibiae and the tarsi, which are piceous-black; terminal spur of the posterior tibiae acute, stout and slightly bent. Length 6.5 mm.

Near Chester, Pennsylvania; two specimens.

The general color of the head and prothorax is red; the pronotum has two black points in the middle anteriorly; exterior to these spots the surface becomes paler, nearly white, beyond much deeper red, and at the lateral margins again paler. The integument of the pronotum is so thin and transparent that the bloodvessels and general circulatory system can be perfectly seen through it; it is to these vessels that the color of the paler patches is due. The specimens were found under debris on the shores of the Delaware River.

D. arizonæ n. sp.—Form elongated, moderately convex, increasing in width posteriorly. Upper surface glabrous, polished; yellow, vittae and spots black; under surface very sparingly pubescent, piceous-brown. Head rather small, as long as wide; surface pale piceous-brown, more or less mottled, feebly convex, having numerous scattered setigerous punctures near the eyes, the latter very convex, short, and prominent, emarginate anteriorly; between the bases of the antennae there is a deep transverse furrow, acutely angulate posteriorly, which is the posterior limit of a convex,

longitudinal, inter-antennal elevation; labrum four times as wide as long, broadly emarginate anteriorly; antennae about one-half as long as the elytra, piceous-black, base infusate, second joint nearly globular, joints four to ten decreasing rapidly in length, the former twice as long as wide, the latter quadrate; finely pubescent toward the tip; mentum longer than wide, sides nearly parallel, transversely truncate anteriorly, surface convex. Prothorax nearly two and one-half times as wide as long; base broadly arcuate, feebly sinuate in the middle and near the basal angles, apex nearly transverse; apical angles prominent, rounded, and callous, posterior very slightly rounded; sides moderately divergent posteriorly, arcuate, very feebly sinuate near the apical callosities; disk more or less broadly, feebly, and irregularly impressed, minutely and distinctly rugulose, very minutely and distinctly reticulated, rather sparsely and finely punctured; margins narrowly reflexed. Scutellum wider than long, triangular. Elytra across the humeral protuberances distinctly wider than the pronotum; sides divergent and nearly straight for two-thirds the length; disk broadly and obtusely rounded behind, nearly five times as long as the pronotum, highly polished, extremely feebly reticulated, finely and evenly punctulate, each elytron having a very narrow black vitta along the interior edge attaining the tips, a broader median vitta not attaining the tip, and a narrow marginal vitta attaining the tip, remainder of the disk flavate. Under surface of the abdomen mottled very confusedly with rufous, dark piceous-brown, and ochreous-yellow; legs piceous-brown throughout, femora confusedly clouded. Length 6.5 mm.

Arizona (Morrison).

The differences between the present species and *pulchra* are almost generic, and lie principally in the structure of the palpi, mentum, and prosternal intercoxal process. The latter in *arizonæ* is dilated posteriorly and transversely truncate behind; in *pulchra* it is narrower and gradually narrowed posteriorly to the tip, which is acute; in *pennsylvanica* it is narrow, with the sides nearly parallel, and the surface is very densely hirsute; these differences may serve as a convenient basis of classification. The only ornamentation of the pronotum in *arizonæ* consists of two small black spots rather distant and just in advance of the middle.

CHÆTOCNEMA.

C. paupercula n. sp.—Form rather slender; glabrous. Color above bronzed, beneath pale piceous-brown; shining. Head nearly twice as wide as long; interocular surface evenly and rather feebly convex, finely, deeply, and very distinctly granulate, also minutely, rather sparsely and distinctly punctulate; labrum nearly three times as wide as long, transverse anteriorly; eyes broadly emarginate anteriorly, the upper margin of the eyes, which are nearly straight, are produced anteriorly as two deep straight convergent grooves, which connect with a very short transverse groove between the bases of the antennae; this transverse line is broadly

angulate posteriorly, and at the apex there is a very deeply impressed, posteriorly bifurcated puncture: antennae slightly longer than the width of pronotum, basal joint moderately robust and elongated, second less robust and shorter, joints three to six slender, sixth much the shortest, joints seven to eleven enlarged as a very elongated compact cylindrical club, darker in color. Prothorax nearly twice as wide as long; sides nearly parallel and feebly arcuate; base rather strongly arcuate and very feebly sinuate near the basal angles, which are acute; apex broadly and evenly arcuate: disk narrowly margined posteriorly, finely, evenly, and very conspicuously reticulated, also strongly, evenly, and rather distantly punctate; in the middle there are four distinct impressions at the corners of a square: just inside the posterior margin there is a transverse row of very large deeply impressed punctures. Elytra three times as long as the pronotum, rather acutely rounded behind: disk minutely reticulated, though not as distinctly as the pronotum, very strongly punctate, punctures large, very deeply impressed and arranged in striae-like rows, fifth and sixth rows discontinuous. Prosternum broadly and roundly emarginate anteriorly; distance of front coxae from the emargination equal to one-half the distance between them. Length 1.8 mm.

Willets Point, Long Island; one specimen.

This is a somewhat remarkable species; the front coxae are more widely separated than usual. The specimen described above is slightly immature, thus causing a warping of the elytra after drying: the exact form of these parts cannot therefore be exactly stated.

PSYLLIODES.

P. extricata n. sp.—Form elongated, narrowed behind, somewhat depressed: body glabrous, shining, brassy-bronze above, much more piceous beneath. Head convex, moderate in size; interocular surface almost continuous in convexity with the eyes, nearly twice as wide as the latter, feebly and evenly punctulate and minutely granulated; eyes not at all prominent: labrum one-third wider than long, roundly and feebly emarginate in the middle anteriorly, anterior angles rounded, surface with two feeble approximate setigerous impressions in the middle; antennae moderate, testaceous at base, piceous toward the tip where they are thickly pubescent, joints two, three, and four uniformly and rapidly increasing in length, fifth much shorter, sixth slightly longer than the fifth. Prothorax twice as wide as long, base one-third longer than the apex; sides nearly straight; base and apex broadly, evenly, rather strongly, and nearly equally arcuate; posterior angles acute from above; disk finely and evenly unctulate, and finely reticulated, punctures separated by about five times their own widths; base narrowly and evenly margined. Scutellum sub-triangular, sides arcuate, broader than long. Elytra at base as wide as the prothorax; sides rather strongly arcuate and convergent posteriorly; disk four times as long as the pronotum, acutely rounded behind, strongly punctate: punctures deeply impressed and arranged in striae-like rows, distance between the rows greater than the distance between the punctures in the rows; surface also minutely

and very feebly rugulose or undulated; epipleuræ of nearly equal width throughout, not widened abruptly at base. First joint of anterior tarsi not swollen, elongated and narrower than the third, which is strongly bilobed, joints one and three spongy-pubescent beneath. Under surface of the abdomen very sparsely pubescent. Length 2.6 mm.

New Jersey; one specimen.

The only species with which the above described form can be compared is *interstitialis* Lec., and the differences are so great as to leave no doubt of its distinctness; it will suffice here to mention one, viz.: the structure of the anterior tarsi, the first joint of which is greatly swollen in *interstitialis* and of normally slender form in *extricata*.

P. ænescens n. sp.—Form robust, very convex; body glabrous, highly polished, brassy-bronze above, abdomen black beneath, femora piceous-black, tibiae and tarsi paler. Head moderately convex; eyes somewhat prominent; interocular surface evenly convex, sparsely and minutely punctate, minutely reticulated; labrum broadly and feebly emarginate anteriorly, having two distant impressed punctures on the upper surface, which are small, very distinct and setigerous; antennæ one-half as long as the body, reddish-testaceous at the base, becoming dark piceous-brown toward the tip, rather slender, terminal process of last joint very slender and distinct, second joint distinctly longer than the third, and about as long as the fourth. Prothorax distinctly less than twice as wide as long; apex scarcely one-fourth shorter than the base, both broadly, evenly, nearly equally and rather strongly arcuate; sides very feebly arcuate; posterior angles acute; just perceptibly wider than the head anteriorly: disk strongly convex, distinctly, evenly, and very narrowly margined posteriorly; punctures somewhat coarse and distant, nearly evenly distributed; surface also minutely reticulated. Scutellum small, angulate behind, sides strongly arcuate, much wider than long, steel-blue in color. Elytra at base very slightly wider than the pronotum; disk very convex, widest at one-fourth its length posteriorly, thence gradually narrowed behind, immediate apex very obtusely rounded; surface very strongly punctate and minutely, though rather strongly, rugulose or undulated; punctures arranged in rows, having an irregular line of extremely minute punctures between them, distance of the punctures in the rows equal to about two-thirds the distance between the latter. Posterior femora very robust, and very rapidly narrowed to the apex; first joint of the anterior tarsi moderately robust, as wide as the third, which is strongly bilobed. Length 2.1 mm.

Willets Point, Long Island; two specimens.

This species differs from *interstitialis* in the following particulars:—

In the latter the punctuation of the head and prothorax is closer, and the punctures of the pronotum are finer; the granulation of these surfaces is also much more distinct; the scutellum is smaller and narrower; the punctures of the elytra are much less strong and are

more distant in the rows; the first joint of the anterior tarsi is much more swollen and is broader than the third joint; the under surface of the abdomen and the surface of the posterior femora are more thickly pubescent; the second joint of the antennae is distinctly shorter than the third; in *ænesceus*, the body, besides being smaller in size, is of a different shape; in *interstitialis* the elytra are widest at a point one-third their length from the humeri, and the general form is slightly more elongated and less robust.

TYLODERMA.

T. nigrum n. sp.—Form rather robust; body deep black throughout, moderately shining, scarcely metallic; tibiae dark fuscous. Head moderately convex, rather coarsely and feebly punctate, very sparsely so in the middle, more densely at the sides; rostrum very robust, anterior surface broadly impressed at the base, coarsely and longitudinally rugulose or furrowed, entire surface minutely granulose. Prothorax just perceptibly wider than long; sides just visibly divergent from the basal angles for two-fifths the length anteriorly, then rather suddenly and strongly constricted; very evenly and strongly arcuate anteriorly when viewed vertically, base very broadly and feebly arcuate; flanks perpendicular, strongly swollen just over the anterior coxae, edge sinuate anteriorly, emarginate for the coxae at the sides; disk of pronotum very sparsely punctate dorsally, where the punctures are round, small, impressed, and much finer anteriorly than toward the base; on the flanks the punctures are very irregularly distributed, much coarser, deeper, and generally closer; surface minutely granulose, feebly shining. Scutellum longer than wide, convex, angulate behind. Elytra at the humeri slightly more than one-third wider than the contiguous pronotum; sides parallel and very feebly arcuate for one-half the length, then gradually convergent; disk acutely rounded behind, very convex, scarcely more than one-half longer than wide, slightly more than twice as long as the pronotum; punctures large, deeply impressed, round, arranged in rows, distances of the punctures in the sutural rows much less than in the others; flanks inflexed; edges not bordered, nearly straight laterally, acute; viewed from beneath, the edges are very broadly cusped, cusp broadly rounded and placed at the sides of the third ventral segment. Under surface of abdomen sparsely punctate, slightly more densely so on the last segment, first two segments together slightly longer than the last three; metasternum very coarsely, deeply, and rather sparsely punctate, very coarsely granulose. Length 3.8 mm.

Northern Illinois.

This species differs from *ærenum* and *baridum* in facies. One of the numerous structural differences is shown in figs. 10, 11, and 12, plate L, which represent the relations existing between the mesosternal and metasternal episterna, and the mesosternal epimeron in the three species respectively. It is seen that, while the mesosternal

episternum comes very far from attaining the metasternum in *areum* it actually borders it for a short distance in the present species.

T. punctatum n. sp.—Form nearly as in *areum*; glabrous; shining. Head small; rostrum very short, robust, strongly constricted at the base between the eyes, enlarged at the tip, which is transversely truncate and clothed at the sides with very sparse setae; surface rather finely rugulose; front finely punctate in the middle, more coarsely so toward the eyes, minutely granulose, rather strongly convex; eyes coarsely granulate. Prothorax slightly longer than wide, widest at the base which is broadly angulate, angle broadly rounded; apex nearly one-half shorter, strongly arcuate; sides gradually divergent posteriorly except in the middle, where they are abruptly arcuate for a short distance, very feebly sinuate just before the basal and behind the apical angles; angles at base and apex rather prominent; disk very sparsely and minutely punctulate toward the base, with a very few widely scattered larger punctures; surface polished in the apical half, granulose toward the base; just behind the apical margin there is a transverse row of small punctures, which become very large and deep on the flanks. Elytra widest at the humeri, where they are one-third wider than the pronotum at base; sides thence feebly convergent posteriorly and acutely rounded behind; disk very convex, polished, reticulated; very strongly, coarsely, and sparsely punctate, punctures arranged in rows; suture nearly two and one-half times as long as the pronotum. Scutellum minute, longer than wide. Legs robust; last joint of the tarsi slender; claws very small, strongly arcuate. Last ventral segment as long as the two preceding together, nearly flat, very strongly arcuate behind; surface sparsely and somewhat finely punctate. Color of the upper surface of the body brassy-bronze, that of the lower surface black, legs piceous. Mesosternal episternum not attaining the metasternum. Length 4.0 mm.; breadth 1.8 mm.

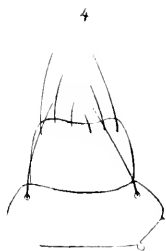
Willets Point, Long Island.

From *areum* this species differs radically in its much larger size, in the shape of the prothorax and elytra, in the punctuation of the latter, in the punctuation of the under surface, especially of the metasternum and last ventral segment, and in the punctuation of the pronotum. In *areum* the punctures of the elytra are smaller, and generally joined in the rows by at least a feeble impressed channel, giving sometimes the appearance of a punctate stria, and the sculpture of the last ventral segment is very close, coarse, coalescent, and confused, more particularly so toward the tip. The greatest difference exists, however, in the shape of the pronotum, the sides being abruptly constricted at the base in *areum*, so that it is widest before the middle; that species also lacks the row of punctures behind the anterior margin. The metasternum in *areum* is very coarsely and deeply punctate while in the present species it is sparsely and rather finely so.

The type specimen was found clinging to the under surface of a stone on the shore of a small pond.

EXPLANATION OF THE PLATE.

- Fig. 1. Anterior portion of the head in *Harpalus convector*.
Fig. 2. The same in *H. viridianus*.
Fig. 3. The same in *H. canonicus*.
Fig. 4. The same in *H. lustralis*.
Fig. 5. The same in *H. aeneus*.
Fig. 6. Structure of the mesosternum between the coxae in *Tithanus*.
Fig. 7. Antenna of *Tithanus*.
Fig. 8. Structure of the mesosternum between the coxae in *Allochara*.
Fig. 9. The same in *Empleuota*.
Fig. 10. Conformation of the mesosternal and metasternal episterna and the mesosternal epimeron in *Tygoderma nigrum*.
Fig. 11. The same in *T. arcum*.
Fig. 12. The same in *T. baridum*.



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**Contributions to the Descriptive and Systematic
Coleopterology of North America.**

PART II.

By THOS. L. CASEY, Lieut. of Eng'rs, U. S. A.

THIS, the concluding part of the present work, contains descriptions of new species and genera, and systematic revisions of several genera as represented in the United States; among the latter are *Euplectus* and *Apocellus*.

The descriptions are very minute and full of detail, perhaps some may consider them unnecessarily so, and in several places characters may be given which not only belong to the species described, but to the entire genus or group in question; I have done this in many cases inadvertently, and hope that the descriptions will not thereby be rendered more confusing. It has been my aim not only to describe the species, but to make a separate study of each, not only in order to verify previous observations, but to find if possible other characters which may serve as bases of classification. If the descriptions be read carefully it will be seen that occasionally characters are given which may prove useful in a systematic treatment of the genus, but which I have not had an opportunity to verify throughout, because of the very limited material at my disposal; nothing is definitely stated in such cases respecting the value of the character for the purposes above indicated.

In relation to minuteness of detail, it may be permitted me to quote an objection advanced by several entomologists, among whom, unfortunately, all those who have had to identify species from descriptions know only too well the late Dr. LeConte must be numbered; it depends indirectly upon the methods of observation employed, the optical means adopted by the author being the binocular microscope, with mechanical universal-jointed stage-clip for holding the pin and insect together, while the latter is under examination; it is, in sub-

stance, that because the majority of entomologists and collectors make use of the hand-lens only, such an array of minute details in the descriptions is, from their inability to perceive them, not only unnecessary, but positively detrimental, from its tendency to confuse them, or, in other words, that we should give only such characters as can be seen by imperfectly equipped or unskillful eyes. I need scarcely say that the fallacy of such reasoning is obvious, without alluding to the dullness attributed by implication to the intellects of our entomological students. We might as reasonably request an astronomer not to make as refined observations of the planets as his telescope is capable of, because the majority of astronomers, using smaller instruments, cannot employ very precise measurements to advantage, forgetting that it is only by such careful measurements that the laws of internal action of the solar system can be confirmed; or, with equal propriety, ask the physicist not to make his determination of the velocity of light laboriously precise, because such nicety cannot be appreciated by the majority of physicists working in other channels, little thinking that by this means the earth's distance from the sun may be accurately determined, and the unit thus made known for the survey of the entire visible universe. Scientific facts are valuable for their own sakes, if for nothing else, and it is only by an accumulation of careful, minute, and conscientious observations that the mode of working of Nature's laws can be revealed, the statement applying with equal truth if not with equal force to astronomy, physics, and natural history.

PHILADELPHIA, December 1, 1884.

BEMBIDION Latr.

B. vernula n. sp.—Depressed, black with greenish metallic lustre; head and pronotum strongly alutaceous; elytra less finely and strongly so, more polished; elytra having at the anterior third, from the fourth stria to the sides, very small short dashes of interstrial pale brownish-testaceous, which near the sides, become longer, also laterally and apically through nearly the posterior third, a broad irregular margin of still paler tint; epipleuræ pale above throughout the length; under surface nearly piecous-black, posterior segments paler laterally; legs pale testaceous-brown; antennæ and palpi dark fuscous, basal and apical joints respectively paler. **Head** rather large; eyes very large and convex; interocular surface rather broadly swollen along the middle, extending to the epistoma which is very broadly and feebly emarginate anteriorly throughout, and concentric with

the anterior margin of the labrum; the latter nearly four times as wide as long, angles not at all rounded; epistoma about twice as wide as long, suture narrow but distinct; eyes margined interiorly by a narrow groove; anterior seta very large, much larger than the posterior, opposite the anterior two-fifths of the eye, the latter opposite the posterior fourth; antennae distinctly longer than the head and prothorax together, slender, second joint three-fourths as long as the third, as long as the fifth, very slightly shorter than the fourth; mentum tooth very robust, triangular, wider than long, very prominent; dental setae very fine; gular support of mentum bearing along its basal margin a pair of setae on each side, the outer ones very long and stout, the inner very fine and short, the pairs widely separated. **Prothorax** widest slightly in advance of the middle, where it is very slightly wider than the head, and one-fourth wider than long; sides strongly arcuate anteriorly, strongly convergent toward the base and extremely feebly sinuate just before the basal angles; the latter obtuse and scarcely rounded; apex broadly and very feebly emarginate throughout; apical angles rather narrowly rounded, slightly obtuse, base broadly and very feebly arcuate, four-fifths as long as the apex; anterior lateral seta at two-fifths the length from the apical angles; disk rather feebly convex; median line very fine, distinct, disappearing near the base; sides narrowly but strongly reflexed; longitudinal carina at the basal angles short; longitudinal canalicular impressions near them very strongly marked, short. **Elytra** widest at the middle, where they are one-half wider than the pronotum; sides parallel for four-fifths the length from the broadly rounded humeral angles, and feebly arcuate; disk rather obtusely rounded behind, somewhat depressed, two-thirds longer than wide, one-half longer than the head and prothorax together, strongly punctato-striate, intervals flat; striae becoming obsolete near the apex, except the seventh and eighth, the latter continuous at apex with the first; punctures round, moderate in size, deeply impressed, much closer in the two sutural striae; scutellar stria short, containing about ten or eleven punctures; each elytron with a discal puncture at the anterior and posterior third, between the second and third striae, slightly nearer the latter, and a long lateral seta at one-sixth the length from the base. **Legs** long and slender; posterior femora with three or four discal setae, and two much longer ones along the lower edge; corresponding tibia having about five terminal spines, the longest less than one-half as long as the first joint of the tarsus, the latter as long as the next three together, and one-third longer than the last; posterior coxae bearing two erect setae in the middle of the disk arranged longitudinally. Length 4.8 mm.

Cape May, New Jersey, 1.

The alutaceous appearance produced by the minute but very distinct and even granulation of the head and pronotum is very strongly marked, and forms a beautiful object with suitable optical power.

B. acticola n. sp.—Depressed; color black with piceo-aeneous lustre; elytra without trace of paler tint anteriorly except between the seventh and eighth striae, externally and apically very narrowly paler in tint, with a

small spot very near and usually detached at one-fourth the length from the apex; epipleurae pale throughout; beneath piceous-black, paler and fuscous toward the tip of the abdomen; coxae very dark fuscous; legs pale flavo-testaceous; antennae very dark blackish-piceous, two basal joints and third and fourth except their tips, pale testaceous; palpi very dark, terminal joint paler; head and pronotum strongly and finely alutaceous; elytra more strongly polished, finely reticulated. **Head** rather large, as wide as long; eyes large and very prominent, margined by a narrow groove interiorly; interocular surface with two very feeble lateral longitudinal channels; intermediate surface very broadly and feebly convex; epistoma slightly more than twice as wide as long, suture rather distinct, broadly and feebly emarginate anteriorly; labrum about two and one-half times as wide as long, very feebly sinuate anteriorly, angles very slightly rounded; antennae slightly longer than the head and prothorax together, slender, second joint three-fourths as long as the third, much shorter than the fifth, joints four to six equal and very slightly shorter than the third; mentum tooth very much wider than long, triangular, rounded at tip, very prominent, and scarcely visibly shorter than the depth of the mental emargination. **Prothorax** widest very slightly in advance of the middle, where it is distinctly wider than the head and scarcely one-fourth wider than long; sides strongly arcuate anteriorly, moderately convergent and sinuate toward the basal angles, which are slightly obtuse, not rounded; base broadly arcuate, about five-sixths as long as the apex, which is broadly and feebly emarginate throughout; apical angles right, narrowly rounded; disk moderately convex, edges narrowly and strongly reflexed; lateral setae, depression, and ridge near the basal angles nearly as in *vernula*, except that the latter is longer and bent outwardly anteriorly. **Elytra** feebly convex above; sides parallel and feebly arcuate; humeral angles broadly rounded; disk rather acutely rounded behind; four-fifths longer than wide, nearly one-half wider than the pronotum, punctato-striate, intervals nearly flat; striae becoming obsolete very near the apices, except the first, seventh, and eighth which are mutually continuous about the tips, and the second which is feebly continued to the tip; punctures round, rather small, very close in the rows, and very deeply impressed, scutellar stria short, consisting of about seven punctures; each elytron has a discal puncture at the anterior three-tenths, and another at three-fifths from the base between the second and third striae, much nearer the latter, and also several small setae along the exterior edge. Scutellum small, semi-circularly rounded behind. **Legs** long and slender; posterior femora with a stout inclined seta on the upper edge near the tip, and two erect slender and moderately short setae along the lower edge almost evenly trisecting it; corresponding tibia very slender, longest terminal spine one-half as long as the first tarsal joint, the latter somewhat longer than the next three together. Length 4.4-4.6 mm.

Atlantic City and Cape May, New Jersey, 3; Delaware, 1.

This species resembles the last, but may be distinguished by its less transverse prothorax, more piceous and much less brilliant lustre, and structure of the antennae and head. The surfaces are very strongly alutaceous as in *vernula*.

B. militare n. sp.—Rather depressed, robust: black, elytra somewhat piceous posteriorly, not maculate, reflection very dark metallic blackish-green, elytra more alutaceous; head and prothorax very highly polished, without trace of reticulation or granulation: legs rather dark rufo-testaceous; palpi and antennae same, the latter very slightly darker toward tip: under surface dark rufo-piceous, coxae not paler. **Head** moderate in size, as wide as long; eyes rather large, moderately prominent; anterior seta opposite the middle of the eye, second opposite the posterior limit of the eye: interocular surface having two longitudinal irregular and slightly convergent channels, beginning slightly behind the middle of the eyes and at a short distance from them; intermediate surface rather strongly convex, continuing with same curvature along the occiput; labrum over four times as wide as long, angles not rounded, apex broadly and feebly emarginate throughout, concentric with the apical margin of the epistoma; antennae very long and slender, one-third longer than the head and prothorax together, basal joint moderately robust, cylindrical, equal in length to the third, second three-fourths as long as the third, joints three to six almost exactly equal in length, very slightly thinner toward base. **Prothorax** widest at one-third its length from the apex, where it is distinctly wider than the head and two-fifths wider than long; sides very strongly arcuate, convergent toward the base, just before the basal angles distinctly sinuate; basal angles slightly obtuse, but not rounded, apical strongly obtuse and slightly rounded; base feebly arcuate, except near the basal angle, where it is straight, five-sixths as long as the apex, which is very broadly and feebly emarginate throughout, almost straight; disk moderately convex, edges narrowly reflexed; setae as in *vernula*; median line narrow, distinct, continuous throughout the length; basal depressions broadly, strongly, and irregularly impressed; carinae very short, not attaining the basal angles. **Elytra** widest at the middle, where they are two-fifths wider than the pronotum; sides strongly arcuate; humeri very broadly rounded, continuous in curvature with the sides; disk very moderately convex, two-thirds longer than wide, one-half longer than the head and prothorax together, rather abruptly rounded behind, but somewhat acute at the immediate apex; striae impressed and strongly punctate, becoming obsolete near the tip, except the sutural and exterior with a short auxiliary apical stria; intervals rather convex; punctures round, small, very deeply impressed, rather distant in the series, except in those next to the suture, where they are slightly smaller and closer; scutellar stria very short, having four or five punctures; each elytron has at the anterior third a discal puncture in the third striae, and scarcely distinguishable from the others, except that it is setigerous and behind a slightly longer interval, and another at three-fourths the length from the base, very near the third stria; epipleurae dark rufo-piceous. **Legs** long and slender; first joint of the posterior tarsi slightly longer than the next three together, and three times as long as the longest tibial spine. Length 5.5 mm.

Willets Point, Long Island, I.

Distinguishable from *rupestre* by the much more arcuate sides of the elytra, especially at the humeral angles, and in the total lack of elytral maculation.

At one of the basal angles of the pronotum there is in the type specimen, a curious morbid growth consisting of two long erect slender club-shaped members growing from the same root; there is another cluster of three shorter and more robust, growing from the elytra near the humeral angle. These growths are probably of a fungoid nature; they are black and of very firm texture. I have also noticed them on various parts of the body and in other genera of Carabidae; in one case the first tarsal joint was thus infested. The growth may possibly be the result of some obscure disease.

B. vividum n. sp.—Form rather slender, very convex. Color throughout black, with a dark greenish-black metallic lustre; elytra with a very small spot and a very narrow border, both near the apices and of very slightly paler tint, scarcely noticeable; under surface very dark rufo-piceous; legs rather pale, rufo-testaceous; basal joint of antennae same, second darker, remainder dark fuscous; maxillary palpi very dark fuscous, apical joint pale testaceous; head and prothorax just perceptibly alutaceous, granulations very fine and feeble, more distinct on the head. **Head** moderate, slightly longer than wide; eyes rather large, very convex, in great part visible from above; interocular surface broadly and feebly convex along the middle; lateral sulcations broadly rounded, feeble; epistomal suture rather distinct; anterior angles slightly produced, very acute; apical margin very feebly emarginate; labrum scarcely twice as wide as long, squarely truncate anteriorly, lateral setae three times as long as the intermediate, which are subequal in length; anterior supra-orbital seta slightly in advance of the middle point of the eye, second opposite the posterior fifth; emargination of mentum scarcely more than one-third wider than deep, tooth wider than long, about one-third as long as the depth of the notch; second joint of the maxillary palpi but slightly shorter than the third, glabrous, third coarsely and sparsely setose; antennae rather short, slightly longer than the head and prothorax together, second joint two-thirds as long as the third, third distinctly longer than the fourth, joints four to seven equal in length. **Prothorax** widest at two-fifths its length from the apex, where it is but slightly wider than the head and scarcely one-sixth wider than long; sides moderately arcuate, straight toward the basal angles immediately before which they are sinuate for a very short distance; the basal angles almost right, slightly produced and not rounded; base broadly arcuate throughout, about three-fourths as long as the apex, which is nearly transverse; apical angles very slightly produced, rounded; disk rather convex, transversely rugulose near the base; median line very narrow; edges extremely narrowly but strongly reflexed; basal depressions very close to the angles, strongly impressed, carinae nearly obsolete. **Elytra** nearly one-half wider than the pronotum; sides parallel for two-thirds the length and rather feebly arcuate; humeri broadly rounded; disk acutely rounded behind, rather strongly convex, about three-fourths longer than wide; striae very feebly impressed, except the sutural, becoming obsolete in the posterior fourth, strongly punctate; intervals nearly flat; punctures round, deeply impressed, much closer

in the first and second striae; scutellar striae of about eight or nine punctures, rather long; each elytron having a discal puncture at the anterior and posterior third, both between the second and third striae, also a long erect seta at the side near the humeri, and several small ones behind; epipleurae paler posteriorly. Legs slender; first joint of the anterior tarsi much shorter than the next three together, the latter nearly equal, also shorter than the last, rather robust; first joint of the posterior equal in length to the next three together, more than three times as long as the longest apical spine of the tibiae; posterior femora with two seta along the lower edge. Length 4.5-4.8 mm.

Cape May, New Jersey, 4.

This very fine species is remarkable for its peculiar pronotum and convex form, the form of the emargination of the mentum, and the size of the tooth, and also the nearly glabrous palpi. In Dr. LeConte's classification of the Carabidae as given by Lacordaire, this author distinguishes the genus *Bembidion* by the large size of the tooth, even stating that the mentum is trilobed, the middle lobe being equal in length to the lateral. The present species completely prevents this being used as a distinguishing feature, and in fact in none of those described at this time does the tooth project as far as the lateral lobes. It may be possible, however, that the present species should be placed in Dr. LeConte's genus *Oelthedromus*.

It should also be stated that in all the species of *Bembidion* which I have examined, the sutural striae are continuous to the apex where they are recurved and continue thence as the exterior striae of the elytra, as is the case in *Tachys*, and I am therefore at a loss to know what is meant by Dr. Horn, who, in his revision of the Carabidae, gives the presence or absence of this character as one of the distinguishing features of *Tachys* and *Bembidion*.

B. dejectum n. sp.—Form strongly depressed, moderately narrow. Color of the head and pronotum black, with dark metallic greenish reflection, of the elytra rather pale piceous-brown throughout without metallic reflection, polished; under surface pale brownish-rufous throughout, legs and antennae same, the latter not paler at base. **Head** moderate, as wide as long; eyes large, very strongly convex; interocular surface polished, very feebly alutaceous; lateral longitudinal impressions short and feeble; intermediate surface narrowly and feebly convex; clypeus much more than twice as wide as long, suture distinct, anterior margin about one-third as long as the width of head, transversely truncate; labrum slightly more than twice as wide as long, anterior margin broadly and rather feebly arcuate; antennae slender, much longer than the head and pronotum together, basal joint slightly shorter than the third, robust, sub-cylindrical, slightly swollen toward base, truncate at tip, second three-fourths as long as the third, and very slightly shorter than the fourth, joints four to eight equal; mentum

very large, emargination small, slightly wider than deep, sides nearly straight, tooth nearly as long as wide, broadly rounded at tip, simple, much less than one-half as long as the depth of the emargination: terminal joints of the palpi short, thick, truncate at tip: third joint of the maxillary rather long and slender, somewhat sparsely setose. **Prothorax** widest very slightly in advance of the middle, where it is distinctly wider than the head, and one-fourth wider than long: sides strongly arcuate, convergent toward the basal angles, and excessively feebly and broadly sinuate: basal angles strongly obtuse, very feebly produced at the immediate apex, not rounded: apical very obtuse, slightly rounded: base broadly arcuate throughout, about seven-eighths as long as the apex, which is broadly rounded and feebly emarginate throughout: disk moderately convex, polished, and not granulose in the middle, along the sides and base, and especially near the basal angles strongly and finely granulose: median line narrow and very distinct: basal depressions strongly impressed, rather distant from the angles, connected by an arcuate feeble impression: carinae of basal angles rather feeble, sinuate externally, and diverging very slightly from the lateral edges, becoming obsolete beyond the basal fourth: lateral edges and setae as in *vernula*. **Elytra** widest at about the middle, where they are about one-third wider than the pronotum: sides parallel and rather strongly arcuate for nearly seven-eighths the length from the base: humeri not very broadly rounded: disk four-fifths longer than wide, somewhat acutely rounded behind, fully two-thirds longer than the head and pronotum together, very flat, abruptly declivous at the sides, rather strongly granulose throughout, narrowly and distinctly striate: striae punctate, not becoming obsolete posteriorly, sutural very strong throughout, acutely recurved at tip, returning as the second, and, after a short partial interruption, as the eighth; also, at the point of origin of the eighth, there is a branch which is continued anteriorly as the fifth, and by a very feeble branch as the seventh: the sixth terminates before reaching this last point of separation at one-sixth the length from the apex: third and fourth striae mutually recurved and continuous at one-tenth the length from the apex: punctures very small, round, deeply impressed, closely placed in the striae, not closer in the sutural rows: scutellar row of about nine punctures: each elytron has at three-tenths and two-thirds the length from the base a discal puncture, between the second and third striae, and another just beyond and exterior to the point of junction of the third and fourth striae, and adjoining the strongly oblique portion of the fifth stria, much nearer the margin than the apical angle. **Legs** slender: posterior tarsi short, slender, first joint as long as the next three together, and slightly shorter than the last. Length 4.0 mm.

Arizona (Morrison), 3.

A remarkable species, very depressed; readily known by its pale unicolorous elytra, peculiar short basal joint of the antennae which is enlarged toward base reminding us of the corresponding joint in *Trichopteryx*, and by the sculpture of the elytra, more particularly toward the apices. It is also rather remarkable from the fact that the first joint of the posterior tarsi is shorter than the last.

TACHYS Steph.

T. occultator n. sp.—Form rather robust, depressed. Color above reddish-testaceous, head nearly black; beneath reddish-testaceous, except the abdomen, which is blackish-fuscous; legs and elytral epipleuræ pale fulvo-testaceous; antennæ dark brown, except the two basal joints which are slightly paler; integuments highly polished, impunctate, and translucent. **Head** moderate, longer than wide; eyes moderate, somewhat prominent, in great part visible from above, coarsely granulated; interocular surface very feebly convex, finely and distinctly reticulated; front of epistoma one-half as long as the distance between the eyes, transversely truncate anteriorly, sides thence moderately divergent, narrowly elevated, and nearly straight to the anterior limits of the eyes, punctures very small, distant from the anterior angles which are very obtuse, and scarcely rounded; from the epistomal punctures extends on each side a very broadly and irregularly impressed channel more than one-third the total length of the head, the two being parallel; the ocular borders are elevated, the elevation becoming narrower and more acutely rounded posteriorly, taking the form of supra-ocular ridges; epistomal suture almost completely obsolete; labrum large, one-half wider than long, transversely truncate anteriorly, angles rounded, sides parallel; antennæ about as long as the head and prothorax together, slender, basal joint somewhat robust, larger than the second, second equal in length to and scarcely more robust than the third. **Prothorax** widest at about one-third its length from the apex, where it is but very slightly wider than the head, and one-half wider than long; sides rather strongly arcuate, feebly sinuate toward the basal angles, which are right, and not at all rounded, very prominent; base transverse at the sides, broadly arcuate in the middle; apex just visibly longer than the base, broadly and rather feebly emarginate; apical angles very obtuse, very slightly rounded; anterior setae just within the border at one-third the length from the apex, posterior on the acute edge slightly before the basal angles; disk broadly and almost evenly convex throughout; median groove extremely fine and feeble: at the base there is a broadly arcuate and unbroken line of minute foveae opposite the arcuate portion of the basal edge; minute tuberculations within the basal angles entirely wanting. **Sentellum** hastate, small, slightly longer than wide. **Elytra** at base distinctly wider than the pronotum; sides parallel and very feebly arcuate for three-fourths the length from the base, where there is a large marginal seta; disk obtusely rounded behind, broadly and rather feebly convex, widest at the middle, where it is about three-fourths longer than wide; sutural striae strongly marked, arcuate without, then a second very feeble stria, and beyond very feeble traces of a third on each elytron; in the middle and two-fifths the width from the suture a minute setigerous puncture, and another discal puncture in the same line at one-sixth the length from the apices; sides feebly and narrowly reflexed with a short setigerous humeral channel very close to the edge, and, through the posterior two-fifths, a more deeply impressed and irregular channel near the border, and a very short oblique discal one, both coalescing near the elytral plica with the marginal continuation of the sutural stria. **Legs** long and

slender, sparsely pubescent. **Abdomen** rather strongly convex, very sparsely clothed with short erect pubescence toward tip; last segment having four equal equidistant marginal setae. Length 2.8 mm.

Cape May, New Jersey, 1.

Found under débris on the beach; it somewhat resembles *scitulus* in form of body, and more particularly in the two small foraminiform punctures behind and rather distant from the mentum tooth; the dental setae of the mentum are close to the base of the tooth and are rather approximate.

The impressed setigerous channel begun at the humeri and again resumed toward the apices, is a generic character, but the short oblique apical stria seems to vary somewhat in obliquity; in the present species it is very widely divergent, while in *gemellus* it is very close to the marginal channel. The curious punctures behind the mentum tooth appear to be a characteristic of the broadly depressed species allied to *scitulus*, there being no trace of them in those species similar in form to *incurvus* or *gemellus*; I have, therefore, restored Chaudoir's genus for the latter.

BARYTACHYS Chaud.

B. glossema n. sp.—Form robust, short, convex; sides strongly arcuate. Color above dark rufo-testaceous; head slightly darker beneath, rufo-testaceous; abdomen piceous-black; legs pale fulvous, antennae same toward base, brownish toward tip; integuments very translucent and very highly polished. **Head** short and robust, scarcely as long as wide; eyes moderate, rather prominent, very coarsely granulate; interocular surface feebly convex, having an irregularly impressed very short channel on each side over the eye, and attaining the epistomal suture; anterior margin of epistoma one-third as long as the distance between the eyes, broadly and feebly sinuate throughout, angles extremely well marked and prominent, sides thence widely divergent, deeply and evenly sinuate to the anterior limits of the eyes; epistoma but slightly wider than long, suture distinct, setae at two-fifths its length from the anterior angles; labrum very short, more than four times as wide as long, finely rugulose anteriorly, broadly and feebly sinuate throughout; antennae distinctly longer than the head and prothorax together, basal joint rather robust, first three joints sub-equal in length, decreasing almost uniformly in thickness. **Prothorax** widest at nearly two-fifths its length from the apex, where it is much wider than the head, and one-third wider than long; sides strongly arcuate, very feebly convergent posteriorly, where they become feebly sinuate for a very short distance in front of the basal angles, the latter prominent and not at all rounded; base and apex about equal in length, both transverse and straight; disk rather feebly convex, except toward the apical angles where it is very strongly so, having at each side, at two-fifths the length from the apex, a small erect

seta; lateral borders very narrowly reflexed; median groove very fine and feeble; near the base there is a broadly arcuate row of minute punctiform foveae, nearly in mutual contact; there is also a minute tuberculation just inside of each basal angle. Scutellum small, angulate behind, very slightly wider than long, sides rounded, slightly constricted at base. Elytra at base just visibly wider than the pronotum; sides parallel and rather strongly arcuate for two-thirds the length from the humeri, thence rather strongly convergent; disk rather acutely rounded behind, widest at one-third the length from the base, where it is scarcely two-fifths longer than wide; humeral angles broadly rounded; strongly convex, impunctate; sutural striae distinct, fine, single, slightly arcuate, with excessively feeble traces of a second stria; there are also on each elytron two punctiform impressions at the base, and two extremely minute and feeble punctures or eroded setigerous impressions at one-third the width from the suture, and just before and behind the middle; lateral edges narrowly reflexed; on the extreme flanks near the humeri there is on each side a short irregular impressed channel, with two or three setigerous punctures near its point of origin; epipleurae wide at the base, becoming rather abruptly much narrower at one-third the length from the humeri, pale in color. Abdomen nearly flat, edges of the segments abruptly and very narrowly paler. Legs long and slender. Length 2.0 mm.

Pennsylvania, near Philadelphia, 2.

A very robust little species, resembling *incurvus*, but much shorter in proportion to its width; the greatest difference is perhaps in the head, which is much shorter and broader and with much more coarsely granulated eyes in *glossema*; the distance between the front coxae is also relatively greater in the latter.

B. gemellus n. sp.—Form very slender, convex; sides arcuate. Above very uniformly dark rufous throughout, antennae testaceous toward base, fuscous toward tip; under surface throughout of same color as the upper, except along the lateral margins of the abdomen, where it becomes castaneous; integuments polished, rather opaque; legs flavate, translucent. Head rather small, as long as wide; eyes moderate, somewhat prominent, coarsely granulated; impressions above the eye near the suture very feeble; epistomal apex slightly longer than one-third the distance between the eyes, very feebly sinuate, angles obtuse and slightly rounded, sides thence widely divergent and feebly sinuate to the anterior limits of the eyes; labrum large, about twice as wide as long, minutely and strongly reticulated throughout, apex broadly sinuate; epistoma about one-half wider than long, setae at about one-third its length from the anterior angles; antennae short, scarcely as long as the head and prothorax together, basal joint robust, second slightly shorter than the third. Prothorax widest at two-fifths the length from the apex, where it is much wider than the head, and one-half wider than long; sides broadly and moderately arcuate to within a very short distance of the basal angles, where they become very feebly sinuate; basal

angles obtuse, prominent, and not at all rounded, setigerous; anterior angles rather broadly rounded; base and apex about equal in length, transverse and nearly straight; disk convex, more strongly so toward the anterior angles; lateral setae at two-fifths the length from the apical angles; border narrowly reflexed, median groove very fine and feeble, extending from the base nearly to the apex; very near the base there is a broadly arcuate impressed groove entirely interrupted in the middle, but coarsely and feebly punctate toward the sides, tuberculation near each basal angle extremely feeble. Scutellum very small, distinctly wider than long, angulate behind, sides rounded, slightly constricted at base. **Elytra** at base scarcely wider than the pronotum; sides parallel and moderately arcuate for nearly two-thirds the length, thence convergent; disk rather acutely rounded behind, widest at about one-third the length from the base, where it is two-thirds longer than wide, strongly convex; sutural striae fine, strong, feebly arcuate, with distinct traces of a second stria; each elytron has on the disk two minute setigerous punctures as in *glossina*, and, at the base, a circular setigerous verrucation near the scutellum; edges narrowly reflexed; humeri broadly rounded, near which there is a short irregularly impressed channel having four small setigerous punctures nearly equidistant and scattered along its entire length; there is also a large setigerous puncture posteriorly at the edge; epipleurae wide at the basal third, where the inferior edge is feebly sinuate. **Abdomen** feebly convex; terminal segment with two apical pairs of setae. **Legs** long and slender; posterior trochanter with one discal seta; posterior femora with three equidistant erect setae. Length 2.4 mm.

Cape May, New Jersey, 3.

Taken under rubbish on the sea-beach; it resembles at first sight *incurvus*, but differs greatly in the color, want of elytral maculations, much more slender form of body, opaque integuments, and many minor characters, among which may be mentioned the transversely arcuate furrow at the base of the pronotum, which is densely and evenly foveate throughout its length in *incurvus*.

PTEROSTICHUS Bonelli.

P. manhattanis n. sp.—Form nearly as in *texanus*. Upper surface metallic, highly polished, reflecting a brilliant reddish tint from the middle portions, and a brilliant metallic green from the reflexed portions at the sides; under surface polished, intense black without colored reflections; legs and palpi same; antennae piceous, becoming dark reddish-fuscous toward base. **Head** rather small, longer than wide; eyes very large, prominent; interocular surface moderately convex, very feebly rugulose toward the eyes, extremely minutely and irregularly punctate more especially toward the eyes, polished, with brilliant and varied metallic red and green reflections; labrum and mandibles black, the former four-fifths wider than long, almost transversely truncate anteriorly, the latter very robust, rugulose or furrowed on the inner surface; antennae slightly longer than the head and prothorax

together, slender, three basal joints carinate posteriorly and glabrous, carina of the first becoming obsolete at two-thirds its length from the base, basal joint sub-cylindrical, twice as long as wide, bearing near the tip a seta as long as the first two joints together, second joint one-third as long as the third; palpi truncate at tip, flattened, truncation in the form of a narrow rectangle, the surface of which is deeply excavated; labial very slender, cylindrical, second joint more than one-third longer than the third, bearing two long setae; maxillary palpi rather long and stout, entirely glabrous, second joint very finely strigose, third slightly longer than the fourth; mentum tooth very broad, squarely truncate or very feebly sinuate at tip; ligula rounded at tip, broadly swollen along the middle, bearing along the apical edge, which is reflexed, two setae. **Prothorax** widest at the middle, where it is scarcely one-third wider than long; sides very strongly and nearly evenly arcuate throughout; apex slightly shorter than the base; basal angles obtuse, narrowly rounded, apical slightly acute, narrowly rounded; base transverse, apex broadly emarginate; disk rather feebly convex, transversely creased; median line strong, very feeble just behind the centre of the disk; basal impressions rather finely and irregularly punctate, the inner ones more than twice as long as the outer, and, with the median line, dividing the disk nearly equally; margin feebly reflexed, becoming much more broadly and feebly so posteriorly; posterior angles having an erect seta, anterior setae well within the edge. **Elytra** at base slightly narrower than the pronotum; sides parallel and rather strongly arcuate for three-fourths the length from the base; disk rather acutely rounded behind, moderately convex; striae very deeply impressed, very feebly and distantly punctulate; intervals strongly convex, very finely and irregularly creased and finely alutaceous, third interval having six distinct punctures near the third stria; basal carina strong, attained by all the striae except the scutellar; three-fourths longer than the head and pronotum together. **Legs** long and slender; first four joints of the posterior tarsi strongly grooved; abdomen punctate toward the base, strongly convex, last segment not modified. **Meta-sternum** and its episterna coarsely, deeply, and coalescently punctate, the latter longer than wide. Length 13.0 mm.; width 5.0 mm.

Willets Point, New York Harbor, 1 ♂.

This very fine species may be placed at present immediately after *lucublandus* in Dr. LeConte's table of *Pterostichus*; it may be distinguished at once from that species by many characters, chief amongst which may be mentioned the very strongly arcuate sides of the prothorax, very black legs and tarsi, and the six dorsal punctures.

CRATACANTHUS Dejean.

On carefully looking over my specimens of this genus, which are generally included under the name *dubius*, it appears to me evident that there are several distinct species which may be separated by the following table:—

Epipleurae of elytra rufous or rufo-castaneous; eyes very strongly convex; legs pale.

Elytra fully twice as long as the pronotum.

Labrum short; head much narrower than the prothorax, the latter about as wide as the elytra; posterior margin of pronotum but very slightly wider in the middle than near the basal angles...1. **dubius.**

Labrum long; prothorax scarcely perceptibly wider than the head, and distinctly narrower than the elytra, posterior margin nearly twice as wide in the middle as at the posterior angles2. **litoreus.**

Elytra scarcely twice as long as the prothorax, and equal to it in width; labrum very long; basal margin of pronotum much wider in the middle3. **bisectus.**

Epipleurae of elytra black; eyes much less convex; legs dark picceous.

4. **texasus.**

1. **C. dubius** (Beauv.)—Ins. Afr. et Am. p. 8, t. 15, f. 7; *Pennsylvanicus* Dej.—First joint of antenna three-fourths longer than wide, sub-cylindrical, rather abruptly narrowed at base, second two-thirds as long as the third, and just visibly shorter than the fourth, fourth slightly shorter than the fifth, joints five and six equal in length, one-fourth longer than wide, outer joints from the fourth very strongly compressed. Middle femora having on its lower face a row of five erect setae, beginning at the base, nearly parallel to the axis and above it, also another row of about seven setae from the middle of the base obliquely to the lower edge beyond the middle, also a short straight row of four short stiff setae near the tip and from the upper edge obliquely and inwardly to the median line where it ends; in addition two long erect setae in the basal third of the lower edge, and a row of equidistant very short inclined setae along the entire upper edge; corresponding tibiae scarcely as long as the femora; posterior tibia slightly longer than the femur, first joint of the tarsus very slightly longer than the second, last joint distinctly shorter than the first two together, equal in length to the second and third together. Length 9.8 mm.

New Jersey; District of Columbia.

2. **C. litoreus** n. sp.—Antennae much shorter, basal joint twice as long as wide, gradually narrowed toward base, second two-thirds as long as the third, about three-fourths as long as the fourth, fourth slightly longer than the fifth, joints five to eight equal in length, the former one-fifth longer than wide. Middle femora having three long erect setae along the lower edge exteriorly, and three along the same edge interiorly; median oblique row of about five erect setae on the lower face reaching the lower edge at two-thirds the length from the base, also an upper marginal row of about three or four setae; posterior tibiae slightly longer than the femora, first joint of the tarsus as in *dubius*. Length 8.0 mm.

Atlantic City, New Jersey.

The smallest species of the genus thus far described; it is very distinct in facies, the very narrow prothorax and relatively broad and deflexed head giving it a very peculiar appearance.

3. **C. bisectus** n. sp.—First joint of antennae twice as long as wide, very slightly narrowed toward base, second scarcely more than three-fifths as long as the third, and scarcely three-fourths as long as the fourth, fourth distinctly shorter than the fifth, joints five to seven almost exactly equal, fully one-third longer than wide: lower surface and edges of middle femora with setae nearly as in *dubius*, except that the upper discal line is very much further from the axis, and very near the upper edge; first joint of the posterior tarsus much longer than the second, as long as the third and fourth together, fifth slightly longer than the second and third together. Length 9.0 mm.

Fairmount Park, Philadelphia.

Distinguished by the short and narrow elytra, the base of the pronotum almost dividing the body into two equal portions.

4. **C. texanus** n. sp.—First joint of antennae twice as long as wide, sub-cylindrical, very feebly narrowed toward base, second longer than in *bisectus*, nearly one-half longer than wide, two-thirds as long as the third, three-fourths as long as the fourth, fourth as long as the fifth, which is nearly one-half longer than wide. Antennae much darker than in the preceding species. Middle femora nearly as in the preceding species; tibiae and tarsi black throughout; posterior tibiae much longer than the femora; first joint of the tarsus much longer than the second, as long as the third and fourth together, fifth about as long as the first two together. Length 10.8 mm.

Texas.

This species is abundantly distinguished from the others by the characters given. The head is relatively longer and narrower. The front is more strongly declivous than in any except *litoreus*.

DISCODERUS Lec.

D. pinguis n. sp.—Form robust, moderately convex; sides parallel. Color piceous-black, legs and under surface concolorous and slightly paler; when immature piceous-brown throughout, legs paler; integuments very minutely reticulate, moderately shining. Head robust, wider than long; surface moderately convex; supra-orbital seta opposite the posterior limit of the eye; epistomal suture transverse and distinct, anterior edge broadly and feebly emarginate; labrum large, sides near the base very feebly divergent anteriorly, then strongly convergent to the apical angles, which are rounded, anterior edge strongly sinuate, disk paler in color; emargination of mentum more than twice as wide as deep, very broadly rounded at the bottom, sides feebly arcuate, not toothed; second joint of labial palpi much longer than the third; sub-mentum bearing upon the disk at each extremity a close pair of setae; antennae rather slender, fuscous, paler at base, second joint scarcely one-half as long as the third, third distinctly longer than the fourth, joints four to eight decreasing distinctly in length. Prothorax widest very slightly before the middle, where it is four-fifths wider than the head and two-fifths wider than long; sides strongly and almost evenly arcuate throughout;

basal angles broadly rounded; base distinctly broader than the apex, nearly transverse, broadly sinuate between the basal angles; apex rather strongly emarginate throughout, angles very narrowly rounded; disk rather strongly convex, broadly depressed toward the base and basal angles; median line rather feebly impressed; lateral border narrow, reflexed, edges thick; apical border narrow, becoming nearly obsolete in the middle, basal continuous with that of the sides, only interrupted in a very short space in the middle; surface impunctate, except a few excessively feeble punctures along the lateral edges toward the base, and a very few near the basal angles. **Elytra** scarcely visibly wider than the pronotum; sides parallel and feebly arcuate for three-fourths the length, then obtusely rounded behind, more acutely so at the immediate apex; disk convex; striae strongly impressed; intervals very feebly convex, having numerous, large, very feeble, rounded impressions, second, fifth, and seventh striae punctate, punctures small, rather distinct. **Legs** rather slender; middle tibiae strongly bent; anterior tarsi distinctly dilated, very coarsely dentate over the lower surface; first joint of the posterior tarsi slightly shorter than the next three together; anterior coxae widely separated, process nearly flat, circularly rounded, large; middle coxae distinctly separated. Metasternal episterna fully three-fourths longer than wide. Length 8.5-10.5 mm.

Arizona, G.

Described from the male; it appears to be common in Arizona, and varies much in color, probably from immaturity. This species is described as new after reading Dr. Horn's description of *robustus*, under which name I had recorded these specimens. In the description of *robustus*, the prothorax is said to be distinctly narrower at base than at apex, and the metasternal episterna are said to be scarcely longer than wide; these measurements are so distinctly and positively reversed in the present species that the two are necessarily distinct, if all the characters are correctly stated.

SELENOPHORUS Dej.

S. perpallitus n. sp.—Form somewhat robust and depressed. Color above black, beneath piccons-black, abdomen very slightly paler. **Head** moderate in size, slightly longer than wide; eyes large, slightly prominent, in most part visible from above, inner margin strongly sinuate; interocular surface feebly convex, scarcely four times as wide as the eye, polished, excessively feebly rugulose, covered sparsely behind with very fine feeble eroded impressions; supra-ocular setae rather distant from the eye; labrum very large, nearly one-half wider than long, feebly and narrowly sinuate anteriorly, anterior angles very broadly rounded, sides thence rather strongly divergent to within a short distance of the base, where they become distinctly convergent; epistomal setae slightly distant from the anterior angles; maxillary palpi slender, third joint three-fourths as long as the fourth; second joint of the labial palpi distinctly shorter than the third, which is a segment

of a circle in outline, and somewhat robust; antennae flavate throughout, slender, distinctly shorter than the head and prothorax together, second joint three-fifths as long as the third, third slightly longer than the fourth. **Prothorax** widest slightly in advance of the middle, where it is about three-fourths wider than the head, and about one-third wider than long; sides evenly and rather strongly arcuate, more abruptly convergent anteriorly than posteriorly; apex and base about equal in length, the former broadly and strongly sinuate, the latter transverse; apical angles rather acutely rounded; basal angles rather broadly rounded; disk very feebly convex, highly polished, scarcely visibly impressed toward the basal angles; border strongly and narrowly reflexed, bearing on each side at two-fifths the length from the apex a long erect seta; median groove very fine; surface almost impunctate in the middle, finely, feebly, and rather closely punctulate anteriorly and toward the sides, the latter gradually merging into a very large area along the base and basal angles, which is strongly, very densely, and irregularly punctate. Scutellum triangular, slightly wider than long. **Elytra** at base distinctly narrower than the pronotum; sides parallel and very feebly arcuate for three-fourths the length, thence strongly convergent behind; disk rather acutely rounded at the immediate apex; inner apical angles acutely rounded; nearly twice as long as the head and prothorax together, and about twice as long as wide, broadly convex, more strongly so posteriorly, extremely highly polished, and very feebly opalescent; striae very fine and rather feebly impressed; intervals nearly flat, excessively minutely punctulate; in the eighth and ninth intervals the punctures become very close, much deeper, setigerous, and abruptly rather conspicuous; the ninth interval bears a row of about five very large setigerous punctures near the humeri, and another series of about ten very irregular ones near the apices; the punctures of the discal series near the second, fifth, and seventh striae, about ten in number, are very feeble and minute. The edges of the elytra are rather strongly reflexed, and the first elytral stria is continuous with the basal groove, which is very strong, and not attained by any of the other striae; the punctures in the basal portions of the elytra are close, fine, and distinct; the scutellar stria is very short, and proceeds from the setigerous verrucation at the origin of the second stria. **Legs** long and slender, flavate, opaque. Abdomen convex, last segment rather long, bisetose, paler in color. Length 8.0-9.5 mm.

Texas, 6.

The above description is taken from the female; in the male, the first joint of the anterior and middle tarsi is equal in length to the second; the first four joints strongly and equally dilated in both pairs, and clothed very densely beneath with two series of squamules; the posterior tarsi in the same sex are long and slender, first joint nearly equal in length to the next three together, joints two to four uniformly and rapidly decreasing in length, second shorter than the next two together, and very slightly longer than the last, which is very slender and slightly arcuate; claws strong. The above specimens I dis-

covered mixed with a series of *S. opalinus* in my cabinet. It differs from that species in its much less transverse prothorax, which is very densely and closely punctate at base, in its relatively more slender form, particularly of the head, and in its scarcely perceptibly opalescent elytra. In the male the distance between the apical angles of the pronotum is slightly less than the length of base.

STENOLOPHUS Dej.

S. scitulus n. sp.—Form slightly robust, about two and one-half times as long as wide, somewhat depressed. Color above black throughout, beneath piceous-black, scarcely paler; legs pale testaceous; antennae brown, testaceous at base; oral organs dark rufo-testaceous, strongly translucent. **Head** moderate, as wide as long; eyes large, prominent; interocular surface four times as wide as the eye, polished, impunctate, nearly flat, having on each side, at a short distance from the anterior limit of the eye, a short curvate, oblique, and distinctly marked canaliculation; epistomal setae far from the anterior angles; labrum very short, over four times as wide as long, angles rounded, very broadly and feebly sinuate anteriorly; mandibles very short, robust, abruptly and finely acuminate at tip, feebly arcuate; paraglossae excessively thin and transparent; third joint of the maxillary palpi very short, scarcely more than one-half as long as the last, which is robust and gradually and finely acuminate; third joint of labial palpi one-third longer than the second, rather robust, obliquely and finely acuminate; gular support of the mentum bearing a long seta at each side near the centre; ligula obtusely and broadly arcuate anteriorly, having four discal setae; antennae distinctly longer than the head and prothorax together, very slender, second joint two-thirds as long as the third, third and fourth equal in length, the former slightly more slender. **Prothorax** nearly one-half wider than the head; base and apex equal in length, the former very feebly sinuate in the middle, the latter broadly and strongly sinuate; anterior angles rather acutely rounded; basal angles obsolete, very broadly rounded, continuous in curvature with the sides and base; disk slightly wider than long, feebly convex; sides moderately and nearly evenly arcuate; margin narrowly reflexed, disappearing toward the middle of the base; medial groove distinctly marked, narrow, extending from base to apex; surface impunctate, polished, very finely, feebly, and sparsely punctulate in a limited area on each side of the middle at the base where the disk is also very broadly and feebly impressed; at each side at one-third the length from the apical angles there is a long erect seta. Scutellum small, wider than long. **Elytra** at base very slightly wider than the pronotum; sides parallel, evenly and moderately arcuate for four-fifths the length posteriorly, abruptly, evenly, and very obtusely rounded behind; inner apical angles rounded; disk slightly more than one-half longer than the head and prothorax together, broadly convex, minutely and feebly granulose, polished; striae very fine; intervals nearly flat; scutellar stria between the first and second elytral striae rather long; at one-fourth the length from the apices there is a minute setigerous puncture on each elytron just beyond the second stria.

Legs rather long and slender; fourth joints of the anterior and middle tarsi strongly bilobed; first joint of the posterior tarsi scarcely as long as the next two together. Abdomen strongly convex; terminal segment very broadly rounded at tip, where there are four equal widely distant setae. Length 3.8-4.2 mm.

Pennsylvania, near Philadelphia, 2.

Somewhat resembles *conjunctus* Say, but is more elongated, and the pronotum is very much less transverse; it is also black, while in the species referred to the prothorax is invariably rufo-piceous or rufous; it also resembles *rotundatus* Lee., but the pronotum and elytra are not margined with brown, the former is distinctly wider than long, and its basal impressions are not punctiform.

BRADYCELLUS Erichs.

In Dr. LeConte's table of this genus (Proc. Acad. Nat. Sci. 1868, p. 381), this author states that *B. parallelus* appears to him to be a race of *rapestris*. I have before me a specimen which is more elongate than *rapestris*, and in which the pronotum is relatively more transverse; the color is nearly uniformly piceous. If this be the *parallelus* above alluded to—and I have scarcely any doubt of it—there can be no question of the validity of the latter. Besides the differences noted, the emargination of the mentum is strikingly different in the two species, being very broad and shallow in *rapestris*, and much deeper in *parallelus*. In both these species the second joint of the labial palpi is distinctly shorter than the third.

GLYCERIUS n. gen.

This genus is founded upon a peculiar species hitherto associated with *Acupalpus*, *Bradycellus*, and *Tachycellus* in succession. It differs from them in the following characters, and stands, perhaps, properly between the last two.

Prothorax having along the sides of the disk near the edge a row of many erect stiff bristles, becoming more distant toward the posterior angles. Scutellum very short and broad, scarcely entering the elytral disk behind the basal carina. Disk of elytra perfectly smooth, with scarcely any trace of striae except a single well-marked sutural stria. Third joint of the antennae scarcely pubescent, but having numerous stiff setae; epistoma having two prominent setigerous punctures at each anterior angle.

The remaining characters are nearly those of the above-mentioned genera, but the many setae of the pronotum appears to be a character of generic importance. Our single species is—

G. nitidus (Dej.).—Spec. IV. p. 474.

California and Arizona.

The genera in this portion of the Harpalini may be distinguished as follows:—

Mentum tooth very long and slender, as long as or longer than the lateral lobes of the mentum	Amerinus.
Mentum tooth short, much shorter than the lateral lobes of the mentum.	
Antennae with two glabrous joints.....	Bradycellus.
Antennae with three glabrous joints.	
Pronotum having but one lateral seta.....	Tachycellus.
Pronotum having many lateral setae.....	Glycerius.
Mentum not toothed.....	Acupalpus.

As additional characters we may mention the facts observed by Dr. Horn, that the under surface of the middle tarsi in the male is provided with squamules in *Amerinus* and devoid of squamules in *Bradycellus*, and that in *Bradycellus* there is usually but one pubescent spot in the middle of the second ventral segment, there being two in *Glycerius* and none in *Tachycellus*. Dr. LeConte has, in addition, made known the fact in regard to *Glycerius nitidus*, that "traces of a long scutellar stria are apparent in some specimens of this species, which thus differs from all the others [*Bradycellus*] in which the middle tarsi of the male are not furnished with papillae." (Proc. Ac. Phil. 1868, p. 381). I have not attempted to confirm any of these statements, and they are simply given as published by the above-mentioned authors.

BIDESSUS Sharp.

B. nigrinus n. sp.—Form rather elongated, depressed. Pubescence excessively sparse, fine, and very short, very inconspicuous; integuments polished; color above black, head, lateral portions of the pronotum picco-testaceous, also very slightly paler at the borders of the elytra toward the humeri; under surface black, prosternum and head paler; antennae intense black, glabrous, slightly paler picco-testaceous toward base. **Head** scarcely twice as wide as long, strongly arcuate anteriorly; surface very feebly convex, very minutely, sparsely, and irregularly punctate, more strongly so posteriorly; eyes large, not at all prominent; antennae as long as the head and pronotum together, second joint much longer than the first, both slightly more robust than the third, remaining joints slightly flattened, third nearly two-thirds longer than wide, two-thirds longer than the fourth, and very slightly longer than the fifth, fourth very slightly wider than long, eleventh as long as the two preceding together and narrower, very thin, finely acuminate, cylindrical. **Prothorax** wider than the head, about two and one-third times wider than its medial length; sides scarcely visibly convergent from the basal to the apical angles, and slightly arcuate throughout; apex broadly and strongly emarginate throughout for the basal portions of the head,

emargination nearly transverse at the bottom, sides abruptly nearly parallel; apical angles acutely rounded; base very slightly longer than the apex, transverse, except through a short space in the middle, where the margin is abruptly and strongly arcuate; disk feebly convex, rather finely, sparsely, and irregularly punctate; lateral basal canaliculations sinuate, narrow and strong toward the base, and continued posteriorly for a short distance on the elytra, the latter portion being straight and slightly nearer the median line, becoming obsolete anteriorly on the pronotum slightly beyond the middle. Scutellum completely invisible. **Elytra** at base as wide as the pronotum; sides parallel for two-thirds the length from the humeri, and moderately arcuate; disk acutely rounded behind, nearly three-fifths longer than wide, and more than twice as long as the head and pronotum together, widest at two-fifths the length from the base; disk moderately convex above, strongly and rather abruptly declivous at the sides, strongly, rather coarsely, closely, and evenly punctate; punctures rounded, without visible arrangement, and finer toward the sides. **Abdomen** polished, convex, with a few rather large widely scattered punctures near the base; last three segments very short. **Legs** slender; femora and basal half of the tibiae reddish-testaceous, remainder piceous-black; first joint of the posterior tarsi slightly shorter than the next two together. Length 1.9-2.0 mm.

California, 2.

This species somewhat resembles *affinis*, but differs in its much more slender form, and greatly in the coloration; the elytral punctuation is coarser than in that species. The female is broader and more rectangular in outline than the male, but does not differ in color or punctuation. There is no trace of a raised front margin on the head.

Although aware of the variations ascribed by Dr. Sharp to *affinis*, I cannot consider this form as one of them, the much narrower shape, denser and coarser punctuation, and relatively longer prothorax abundantly distinguishing them without taking into account the intense blackness of *nigrinus*.

HELOPHORUS Fab.

H. pallens n. sp.—Form slender. Color above pale brownish-flavate, almost without iridescence, except a slight amount on the elevated portions of the pronotum; head darker; under surface dark piceous-brown, coxae same, legs pale brownish-flavate, last joint of tarsi darker distally; antennae and palpi pale, the former slightly darker toward tip. **Head** one-half wider than long, constricted immediately in front of the eyes into a short broad muzzle, very broadly rounded anteriorly, angles narrowly rounded, and sides rather feebly convergent anteriorly; eyes large and prominent; epistomal groove very strong, originating at the anterior extremity of the eyes, broadly angulate posteriorly; at the angle it is continued to the base by a strongly marked triangular excavation; clypeus very large, one-half wider than long, broadly swollen along the middle longitudinally; surface uneven, a confused

mixture of flat tubercles and small punctures, very feebly iridescent; labrum black, very short and broad, broadly angulate, over six times as wide as long; antennae very short, scarcely as long as the head, first joint rather robust, strongly narrowed toward base, nearly twice as long as wide, second conical, rapidly narrowed toward tip, as wide at base as the tip of the first, bases in contact throughout, slightly shorter than the first, third very slender, cylindrical, slightly shorter than the second, fourth two-thirds as long as the third, equal in thickness, fifth trapezoidal, wider than long, sides convergent toward base, the outer very strongly so, the inner very feebly, the outer angle being much further from the axis of the antenna than the inner, remaining three joints broader than long, truncate at tip, except the eighth, which is broadly rounded, compressed, pubescent, joints one to five glabrous. **Prothorax** much wider than the head, three-fourths wider than long; sides feebly convergent from the apex to the base, feebly angulate at the anterior third, elsewhere nearly straight; apex very slightly longer than the base, broadly emarginate throughout, bottom of the emargination very broadly and feebly arcuate, sides very widely divergent anteriorly; base very broadly angulate, middle portion very slightly more strongly produced and rounded; apical angles acute, posterior obtuse, but not at all rounded; disk very slightly convex, having seven narrow longitudinal furrows, and six flat elevations, the latter finely sub-verrucate, each flat tubercle having a small distinct puncture; median channel narrow and straight, second irregularly twisted; sides feebly reflexed, and very finely, feebly, and evenly undulated along the edge. **Elytra** at base equal in width to the pronotum; disk widest at three-fifths its length from the base, where it is about one-fourth wider than the pronotum, twice as long as wide, acutely rounded behind; sides arcuate; strongly convex; feebly striate, striae very strongly punctate; punctures round, very deeply impressed, much closer than the width of the intervals, which are very feebly convex, each having a regular row of very fine punctures along the crest; humeri prominent, prominence elongate. Scutellum excessively minute, nearly circular, black, flat, about one-half wider than one of the striae punctures. **Legs** long and slender; anterior tibiae rather strongly sigmoid, wider toward tip, fimbriate along the outer side with two rows of very small spinules, the upper row longer and much more widely spaced; terminal spines small, equal, and arcuate; corresponding tarsus rather slender, first joint shorter than the second, next three equal, fifth as long as the first four together; claws abruptly swollen at base; last joint of the posterior tarsi very much shorter than the preceding together. Mesosternum feebly, but very distinctly carinate; middle coxae narrowly separated. **Abdominal** segments nearly equal in length, strongly opaque and granulose, sparsely pubescent. Length 3.3-3.8 mm.

Arizona (Morrison), 3.

The elytra are maculate with a few narrow longitudinal dashes of dark castaneous, especially three spots behind the middle, one sutural and two lateral.

After vainly endeavoring by every means to see nine joints in the antennae, I have given it up and am compelled to state that I can

see but eight joints in this species; in Say's *lineatus*, however, there are nine distinct joints, the fourth above described being divided.

The exposed surface of the cardo of the maxilla is variously sculptured in the different species of *Helophorus*, being in some ornamented with oblique grooves, giving it the appearance of a flat-threaded screw, in others confusedly channeled, and in others punctate.

PHILHYDRUS Sol.

P. angustulus n. sp.—Form elongate, elliptical, very convex, much more than twice as long as wide; upper surface pale brownish-flavate throughout; under surface dark piceous: tibiae and tarsi alone paler and similar in color to the upper surface; palpi and antennae slightly paler, club of the latter piceous-black; upper surface polished and glabrous. **Head** one-half wider than long, rather convex; anterior margin broadly rounded, abruptly more strongly so at the sides; epistomal suture broadly angulate, sides straight, situated almost at the posterior third of the dorsal surface; from the angle along the occiput to the base there is a very feeble narrow line; surface rather finely, closely, evenly, and somewhat strongly punctate; antennae about as long as the head, basal joint as long as the next two together, narrowed toward base, rather slender, second as wide at base as the first, conical, narrowed toward tip, third as long as the fourth and fifth together, the latter transverse, sixth more than twice as wide as long, trapezoidal, sides very strongly convergent toward the base, the outer side much more strongly so, and the outer angle further from the antennal axis than the inner, club nearly as long as the entire remainder of the antenna, loose, joints of equal width, first two trapezoidal, eleventh as long as the preceding two together, strongly flattened, elongate, oval at tip; maxillary palpi about one-half longer than the antennae, very slender, third joint very slightly shorter than the second, fourth about two-thirds as long as the third. **Prothorax** widest at the base, where it is slightly more than twice as wide as long; sides rather feebly arcuate; apex broadly emarginate, about two-thirds as long as the base, which is nearly transverse; basal angles broadly rounded, apical rather acutely so; disk finely, closely, and strongly punctate. **Elytra** at base as wide as the pronotum; humeral angles rounded; sides parallel for about two-thirds the length, and feebly arcuate; disk rather acutely rounded behind, obtuse at the immediate apex, very convex, about three-fifths longer than wide, very slightly more than twice as long as the head and prothorax together, moderately finely, closely, very deeply, and evenly punctate; sutural striae distinct and feebly arcuate in the posterior two-thirds, completely obsolete in the anterior third. **Scutellum** longer than wide, sides straight, acutely rounded at tip, finely and closely punctate. **Abdomen** nearly flat, sunken far within the elytra at the sides, finely and distinctly ruguloso-granulate, and finely and somewhat densely pubescent. **Legs** slender; terminal spurs of the posterior tibiae extremely unequal. **Mesosternum** very feebly carinate, except abruptly near the posterior extremity, where it rises almost as a thick acuminate erect tooth or tubercu-

lation. First joint of the posterior tarsi short, extremely obliquely truncate at tip. Length 3.3-4.6 mm.

Sea-beaches of New Jersey, 8.

A common littoral species, distinguished by its pale color, very narrowly oval form and punctuation. The last three joints of the antennae forming the club are abruptly nearly black, all the preceding joints being very pale; the sixth joint, although nearly as wide at apex as the succeeding ones, does not in my opinion form part of the club.

COLON Herbst.

C. decoris n. sp.—Form regularly elliptical, nearly two and one-half times as long as wide; very convex; head piceous; prothorax paler, piceous-brown, hind angles and base gradually paler from diaphaneity; elytra pale ochreous-yellow, under surface and legs same; antennae dark reddish-brown, very slightly paler toward base and at the tip; pubescence pale yellowish, dense and coarse on the elytra, more fine and sparse on the pronotum. **Head** strongly deflexed, as wide as long, rather densely pubescent; eyes rather large and prominent, sparingly setose; interocular surface feebly and evenly convex, polished, coarsely, very deeply and evenly punctate; punctures round, so deep as to appear like perforations, slightly narrower than the interspaces, finer and more close toward the labrum, which is small, transverse, and constricted slightly at base; antennae short, slightly longer than the width of head, club very prominent, four-jointed; third joint equal in length to the second, slightly thinner, longer than wide, fourth scarcely longer than wide, as thick as the third, fifth trapezoidal, twice as wide as long, shorter than the fourth, sixth and seventh very short, trapezoidal, nearly three and four times as wide as long respectively, eighth longer than the two preceding together, trapezoidal, one-third wider than long, joints five to eight gradually and connectively increasing in width to the apex of the eighth, where the club reaches its maximum thickness, and is thence cylindrical and very compact to the tip, ninth and tenth equal, shorter than the eighth, about twice as wide as long, eleventh wider than long, very broadly rounded at tip. **Prothorax** widest at two-thirds its length from the apex, where it is nearly one-half wider than long; sides thence just visibly convergent posteriorly, more strongly convergent anteriorly, nearly evenly arcuate throughout; apex broadly arcuate, three-fifths as long as the base, which is broadly and very feebly arcuate, abruptly slightly more strongly so toward the middle; basal angles obtuse and not rounded; disk strongly convex, coarsely, strongly, and sub-variolately punctate, punctures very irregularly and loosely scattered, at many spots arranged in very straggling broken series, interspaces finely and feebly punctulate, polished. **Elytra** at base as wide as the pronotum; sides parallel for three-fifths the length from the humeri, thence gradually convergent behind, obtusely rounded at the immediate apex; disk strongly convex, widest at about one-third its length from the humeri, where it is fully three-fourths longer than wide, with the

sides moderately arcuate; surface polished; sutural striae distinct, feebly arcuate; very strongly, coarsely, and evenly punctato-asperate, punctures arranged serially, every third series being composed of punctures which are very much larger. Scutellum as long as wide, acutely rounded behind. **Abdomen** finely pubescent, very minutely punctato-asperate, asperities arranged transversely in partial series; segments five, first as long as the next two together, second to fourth equal in length, fifth very short. **Legs** long and slender; anterior tarsi very slender and cylindrical, tibia terminated inferiorly by a stout finely acuminate arcuate spine, second spine very minute; posterior femora not toothed, tibiae straight; anterior femora sub-cylindrical, not very robust. Length 1.9 mm.

Near Chester, Pennsylvania, 1.

The unique specimen of this very fine species I found under rubbish of various sorts cast up by the waves on the shores of the Delaware River in early spring. If it is a male, as there is reason to suppose, it must come immediately after *paradoxum*, otherwise it will perhaps find a most appropriate place just after *thoracicum*. The posterior femur has the lower edge abruptly more strongly arcuate near the tip, but cannot be said to be properly toothed; the middle portion of the disk of each elytron in the type is indefinitely clouded with castaneous behind the middle.

The species may be distinguished at once by its oval form, pale yellow elytra, and very coarse asperate elytral punctuation.

EUMICRUS Lap.

Microstemma Mots.

E. vestalis n. sp.—Form moderately robust. Color throughout dark rufous, legs and antennae not paler; pubescence of head and pronotum rather sparse and fine, that of the elytra coarser, longer and more dense, erect and bristling; integuments highly polished. **Head** slightly wider than long, sub-rectangular; sides just visibly convergent posteriorly and very feebly arcuate; basal angles broadly rounded; eyes moderate, rather finely granulated, feebly convex, situated at the anterior angles; interocular surface feebly and evenly convex, finely rather densely and very feebly punctulate toward the eyes, narrowly impunctate along the middle; supra-antennal margin of the front slightly produced in the middle; antennae rather approximate at base; clypeus under their points of attachment short, very declivous, and very broadly rounded; labrum very short, transverse, rugulose, coarsely setose; third joint of the maxillary palpi slender, clavate, nearly five times as long as wide, fourth obscure, very short; antennae as long as the head and prothorax together, strongly geniculate, first joint as long as the next two together, second slightly shorter than the third and as long as the fourth, fifth longer than the third, sixth shorter, seventh and eighth much shorter, slightly wider than long, ninth and tenth each as long as the seventh and eighth together, last three joints increasing in width,

eleventh longer, conoidal. **Prothorax** widest at the anterior third; sides rather strongly arcuate anteriorly, much less strongly so posteriorly, distinctly wider than the head; disk one-fourth longer than wide, moderately convex, very minutely remotely and scarcely perceptibly punctulate throughout, bifoveate before the base on each side. **Elytra** at the base very slightly wider than the pronotum, widest in the middle where together they are four-fifths wider than the pronotum; sides rather strongly and evenly arcuate throughout, gradually convergent to the apex which is rather acutely rounded; disk convex, very minutely sparsely sub-asperately and feebly punctate, mutually feebly and narrowly elevated along the suture more especially toward the base; humeri not prominent. **Legs** slender; femora distinctly clavate toward tip; posterior trochanters very long, corresponding coxae widely separated; first ventral segment as long as the next three together, two to five very short, equal in length, sixth longer, transversely lunate; pygidium exposed, as wide as long, shining, impunctate; first joint of the posterior tarsi nearly one-half longer than the second and as long as the fifth, third and fourth shortest, equal. Length 2.2 mm.

Arizona (Morrison), 2.

This species differs from LeConte's *Microstemma grossa* in the shape and punctuation of the pronotum, in the structure of the antennae, and in size.

E. punctatus n. sp.—Form rather slender. Color of body and antennae very dark rufous, legs slightly paler and more flavate; pubescence evenly distributed throughout the upper surface, rather fine, moderately long and sparse, pale fulvous in color, sub-recumbent; integuments very highly polished. **Head** rather small, from the antennae distinctly shorter than wide, rectangular; sides parallel and very feebly arcuate; base truncate, posterior angles right and rather feebly rounded; eyes small, at the anterior angles, very slightly prominent anteriorly; interocular surface very broadly convex, very minutely and sparsely punctulate throughout; apical margin feebly and angularly produced and declivous in the middle between the antennae; the latter very slender, strongly geniculate, as long as the head and prothorax together, club elongated and very slender, first joint slightly shorter than the next two together, ninth about as thick as the first, much longer than wide, as long as and but slightly thinner than the tenth, eleventh thickest, elongate, conoidal, obtusely acuminate at the immediate apex, proportional lengths of the joints nearly as in *vestalis*; last joint of the maxillary palpi very short, broader than long, obtusely angulate. **Prothorax** widest at slightly less than one-third its length from the apex where the sides are somewhat angularly rounded and thence very strongly convergent and slightly arcuate to the apical angles, and very slightly convergent and nearly straight to the base; the latter longer than the apex and more than two-thirds as long as the pronotal width; disk convex, even, slightly less than one-fourth longer than wide, finely rather feebly densely and evenly punctate, not foveate along the base but narrowly and feebly eroded. **Elytra** at base very slightly wider than the pronotum, widest in the middle where

they are nearly twice as wide as the latter : sides evenly and strongly arcuate throughout ; together rather obtusely rounded at the apex ; disk convex, slightly less than twice as long as wide, coarsely rather strongly and somewhat densely and evenly punctate : punctures impressed, interspaces slightly convex. **Legs** long and very slender ; femora slender, rather abruptly clavate near the tips ; tarsi very slender, first joint of the posterior nearly twice as long as the second and longer than the fifth, joints two to four uniformly and very gradually decreasing in length. Length 1.4 mm.

Ann Arbor, Michigan (Schwarz), 1.

Distinguishable from *Motschulskii* by its smaller size, absence of pronotal foveae, and very coarse punctuation of the elytra.

Employing the characters given by Dr. LeConte (*N. Sp. Col.* p. 26) for the two species described by him, we have the following table :—

Prothorax short, nearly as wide as long.

Pronotum punctured behind.....**grossus.**

Pronotum not punctured behind ; much smaller species...**Motschulskii.**

Prothorax much longer than wide.

Elytra very feebly and sparsely punctulate.....**vestalis.**

Elytra coarsely densely and strongly punctate.....**punctatus.**

BRYAXIS Leach.

B. facilis n. sp.—Form rather slender. Color piceous, antennae very slightly paler, elytra rufous, darker in a narrow transverse apical band, legs pale reddish-clavate ; pubescence excessively short and sparse, recumbent. **Head** much longer than wide ; interocular surface impunctate, having three deeply impressed circular spongy-pubescent foveae, which are exactly equal and at the vertices of an equilateral triangle ; intermediate surfaces rather strongly convex ; eyes rather large and prominent, very coarsely granulated ; antennae distinctly longer than the head and prothorax together, slender, first three joints decreasing uniformly in length and thickness, very slowly in the former and rather rapidly in the latter sense, third joint two-thirds longer than wide, joints three to seven equal, slender, and cylindrical, eighth scarcely as wide, quadrate, ninth slightly elongate, cylindrical, slightly thicker, tenth scarcely longer than wide, slightly trapezoidal, a little thicker than the ninth, eleventh slender, thicker than the tenth, as long as the three preceding joints together, obliquely and finely acuminate. **Prothorax** slightly wider than the head, widest very slightly before the middle, where it is about one-fourth wider than long ; sides strongly arcuate, almost straight toward the apex and base, the former three-fifths as long as the greatest width, and very slightly shorter than the latter, both equally and very feebly arcuate ; disk very strongly convex, impunctate ; lateral foveae large, spongy-pubescent, at one-third the length from the base ; median very small, in the form of a nude puncture, very near the base, not connected with the lateral foveae. **Elytra** at base slightly wider than the pronotum ; sides strongly divergent posteriorly and feebly arcuate, transversely truncate behind ; disk rather convex, slightly shorter than wide, rather finely, closely,

and excessively feebly punctulate; sutural striae fine, straight, approximate; single discal stria fine and distinct, exteriorly arcuate, nearer the suture than the lateral edge, abruptly terminating very near the apices, where it is feebly sigmoid. **Abdominal** segments very convex, polished; border moderate, flat, rapidly becoming narrower posteriorly; dorsal carinae of first segment very fine, rather long, approximate, strongly divergent and arcuate; surface finely punctulate. Length 1.3 mm.

Willetts Point, Long Island, 1.

The above description is taken from a male; the terminal ventral segment is broadly, ovably, and feebly impressed; the apex of the last dorsal is very feebly sinuate at the immediate apex. The species should probably stand just after *atlantica* Brend. in the catalogue.

ARTIMIUS Lec.

A. gracilior n. sp.—Form rather slender. Head and elytra dark rufous, pronotum slightly darker, abdomen piccous, legs paler, ferruginous antennae very dark rufous; pubescence long, rather coarse, semi-erect, rather sparse, more dense on the abdomen, where there is an admixture of longer hairs; surface very highly polished throughout. **Head** rather large, as wide as long; eyes large, very coarsely granulated; interocular surface raised above them, nearly flat, impunctate, having two deep, nude, punctiform foveae on a line through the posterior third of the eyes, and mutually three times as distant as either from the eye; antennal tuberculations rather large, not prominent, surface between them very feebly depressed, behind each the surface is very feebly and obliquely impressed; epistoma rapidly declivous before the antennae and feebly convex, broadly rounded anteriorly, and having at each anterior angle a small dentiform tubercle; labrum small, transversely oval; antennae about as long as the head and prothorax together, rather slender, basal joint moderate, emarginate at tip, bicarinate on its upper surface, second slightly elongate, cylindrical, third and fourth much shorter, equal, sub-globular, fifth abruptly and irregularly dilated, slightly shorter than the sixth, sixth slender, equal in length to the seventh, the latter slightly more robust, eighth as long as wide, denticularly produced outwardly at apex, ninth slightly longer than wide, no thicker than the seventh, tenth as long as wide, slightly thicker than the ninth, eleventh slender, finely acuminate, nearly one-half thicker than the tenth, and slightly shorter than the three preceding joints together; all the outer joints are transversely truncate at base, the latter being surrounded by a narrow raised black bead. **Prothorax** scarcely as wide as the head, as wide as long, widest at one-third the length from the apex; sides abruptly and very strongly convergent to the apex, which is scarcely one-half as long as the greatest width, and gradually convergent and moderately arcuate to the basal angles, just before which they are feebly sinuate; base one-third longer than the apex; disk very strongly convex, impunctate and devoid of all modification, except a narrow transverse canalication at one-fifth the length from the base, which is very distinct, and terminating at each side in a small,

rounded, nude, punctiform fovea; at each side there are two erect setae much longer than the pubescence. **Elytra** at base very slightly wider than the base of the pronotum; sides very strongly divergent posteriorly and strongly arcuate; together transversely truncate behind; disk fully one-fifth wider than long, rather strongly convex, very remotely and excessively feebly punctulate; sutural striae very approximate, well marked and straight; between each stria and the suture there is a row of minute and rather well-marked punctures; each elytron has three small, rather feebly impressed nude foveae at base; humeri prominent. **Abdomen** at base as wide as the elytra, segments rapidly and arcuately decreasing in width; surface moderately convex, not punctate; border obsolete, except on the first segment where it is feeble; first segment very long, nearly as long as the remainder together when viewed from above, having in the basal two-fifths two very distant strong carinae, which are very feebly convergent; first ventral segment having at each side just below the prolongation of the elytral edge a very long, strong, basal carina; penultimate ventral segment very large, having in the middle a very large circular and very deep excavation, one-fourth as long as the entire abdomen. Anterior tibiae strongly toothed; femora all strongly fusiform. Length 1.4 mm.

Tampa, Florida (Schwarz), 1 ♂.

I have retained the genus *Arthmius* Lec. distinct from *Batrisus*, at least until the genus *Batrisus* can be reinvestigated, because of the very different form of the body, the very elongate basal segment of the abdomen, the peculiarities of the pronotum and antennae, and the very singular deep excavation of the penultimate ventral segment. The present species differs from *globoicollis* Lec. in its much more slender form, darker color, structure of the antennae, and more particularly in the form of the abdominal excavation, which in *globoicollis* is not circular but broadly lunate. The middle tibiae in both these species, at least in the males, have a single acute terminal spur; the tooth of the anterior tibiae is deeply excavated anteriorly, the excavation extending obliquely along the tibia.

BATRISUS Aubé.

B. denticollis n. sp. *Male*.—Form slender. Color black, elytra dark rufo-piceous, antennae, legs, and palpi dark rufo-testaceous; integuments highly polished; pubescence long, sparse and coarse, erect and herissate, slightly more dense on the abdomen. **Head** large, slightly wider than long; eyes small, prominent; interocular surface elevated abruptly very far above the eyes, generally nearly flat above, having two very large circular, feebly impressed spongy-pubescent foveae on a line with the eyes, and mutually nearly twice as distant as either from the eye, intermediate surface rather convex, with feeble traces of a narrow medial longitudinal carina; the two foveae are connected by an anteriorly arcuate rather feebly impressed channel; supra-antennal tuberculations very large, flat, coarsely and distinctly

punctate, intermediate surface finely punctate, feebly depressed, broadly and rather strongly emarginate anteriorly, bottom of the emargination having two approximate strong triangular teeth: remainder of the head impunctate: clypeal surface between the bases of the antennae very deeply excavated under the overhanging projected inter-antennal portions of the front, broadly arcuate anteriorly, and bearing two elongate, oblique, approximate tuberculations, which are directly under the two teeth of the frontal emargination: labrum very transverse, transversely truncate anteriorly, strongly constricted at base: antennae stout, about as long as the head and pronotum together, basal joint moderate in size, very irregular in shape, being emarginate at tip and tuberculate beneath, joints two to four decreasing uniformly in length, the latter quadrate, joints four to seven nearly equal, eighth very slightly shorter, transverse, ninth very slightly larger, slightly transverse, strongly cuneate, being wider externally, tenth abruptly much larger, subglobular, eleventh but very slightly wider than the tenth, longer than wide, as long as the two preceding together, abruptly, obliquely, and finely acuminate at tip. **Prothorax** very slightly longer than wide, widest at two-fifths its length from the apex, where it is scarcely as wide as the head: sides at this point very strongly arcuate, thence convergent and sinuate to the base: apex scarcely one-half as long as the greatest width, and nearly three-fourths as long as the base: disk impunctate, strongly convex, having at one-fourth the length from the base a small, very deep, nude, median puncture, from which, extending anteriorly nearly to the apex, there is a narrow, very deep, cleft-like, and conspicuous canaliculation: at two-fifths the length from the base there is on each side a large, circular, feebly impressed, spongy-pubescent fovea, extended anteriorly throughout as a narrow, deep canaliculation: midway between the lateral and median foveae there is on each side a very strong, erect, acute tooth continued anteriorly as a fine, feeble carina: between the median puncture and the basal margin there is a short, distinct, connecting carina, and near the basal margin on each side two deeply impressed punctures. **Elytra** at base equal in width to the base of the pronotum: sides strongly divergent and arcuate throughout: together very broadly arcuate behind: disk about as wide as long, convex, very feebly and distantly punctulate: sutural striae approximate, distinct: between each and the suture a row of fine punctures: each elytron has at base three punctures, the middle are continued posteriorly through the basal third as a broadly impressed channel: humeri having a small oblique acute discal tooth. **Abdomen** at base scarcely as wide as the elytra, equally long, rather convex, impunctate: first dorsal with two, very short, parallel stout basal cusps. **Legs** slender, femora fusiform: posterior tibiae long, arcuate, with a slender terminal appendage: tarsi very slender: metasternum with a strong median canaliculation. Length 1.8 mm.

Washington, District of Columbia (Schwarz).

Differs from *spretus* Lec. by its larger size and the very deep medial canaliculation of the pronotum.

B. virginiae n. sp.—Form and colors nearly as in *denticollis*; pubescence more dense and conspicuous: antennae slightly paler toward tip; legs more slender, especially the femora.

Male.—**Head** large, sub-quadrate; eyes small; interocular surface elevated abruptly and very far above them, nearly flat above, having two round, nude, deeply impressed punctiform foveae on a line through the eyes, and mutually one-half more distant than either from the eye, joined by an anteriorly arcuate feebly impressed channel; the portion of the head behind the channel and foveae being impunctate, the remaining portions being finely, densely, and strongly punctate; surface between the foveae moderately convex, having a short medial carina; antennal tuberculations very large and flat, surface between them not depressed, but strongly declivous anteriorly, and produced as a short, broad muzzle, tuberculate in the middle anteriorly, and dentate at the sides below, the teeth being densely setose; beyond the medial tubercle the surface becomes perpendicular, and at its foot the muzzle is abruptly narrowed and produced as a flat triangular horn, which is deeply notched at the vertex; under the declivous, overhanging muzzle with its bifid horn the head is deeply excavated posteriorly between the bases of the antennae, the transversely truncate anterior margin of the clypeus being directly under the tip of the horn; the punctate portions of the front are more densely pubescent, the hairs being short and coarse; beneath, behind the eyes, the pubescence is very dense and erect; basal joint of the antennae as long as the next two together, robust, second slightly longer and wider than the third, joints three to eight almost exactly equal in width, nearly quadrate, ninth slightly wider, distinctly transverse and very feebly cuneate, tenth abruptly much larger, almost exactly globular, eleventh as wide as the tenth, elongate, nearly as long as the three preceding together, obliquely acuminate at tip. **Prothorax** as wide as long. Pronotum and elytra nearly as in *denticollis*, the basal margin of the latter being much more strongly elevated, and the humeri not dentate. Basal carinae of first dorsal segment more approximate and feeble. Metasternum canaliculate medially; posterior tibiae having a similar terminal spur. Length (head extended) 2.0 mm.

Stone Creek, Lee County, Virginia (Schwarz).

The larger claw of the anterior tarsi is distinctly cleft near the tip in the male. This is a very singular species, greatly resembling *denticollis* in nearly all its features except the head, which is entirely different; the punctuation of the inter-antennal portions of the head is much more dense and fine in *virginia*.

B. aterrimus n. sp.—Form slender. Color intense black throughout, antennae and legs very dark rufo-testaceous; integuments extremely highly polished; pubescence very sparse, coarse, and inconspicuous, except beneath the head behind the eyes, where it is more abundant. **Head** large, sub-quadrate, as wide as long; eyes small, very convex; interocular surface elevated abruptly and very strongly above them, nearly flat above, having two small, round, deeply impressed, spongy-pubescent foveae on a line with the posterior limits of the eyes, and mutually one-half more distant than either from the eye; from each there is a feebly impressed, nearly straight channel extending anteriorly, the two strongly convergent, and becoming mutually obsolete between the antennae, making, with an imaginary line

between the foveae, an equilateral triangle: supra-antennal tuberculations rather large, somewhat elevated, very coarsely punctate; intermediate surface feebly depressed; anterior to a line across the tuberculations the surface becomes abruptly very strongly declivous, gradually becoming less so, and more porrected at the edge of the very short, broadly rounded clypeus, the surface of which is confusedly rugulose; occiput impunctate; labrum strongly transverse, paler in color, broadly and strongly emarginate anteriorly, angles very prominent, constricted at base; palpi pale; antennae as long as the head and prothorax together, rather robust, basal joint not as long as the next two together, emarginate at tip, second distinctly longer than wide, joints two to eight equal in width, nearly quadrate, except the second, ninth equal in length, slightly transverse, oval, tenth slightly wider and longer than the ninth, slightly transverse, oval, eleventh distinctly wider than the tenth, elongate, as long as the three preceding joints together, obliquely acuminate at tip; under surface densely punctate, scabrous. **Prothorax** very slightly longer than wide, nearly as in the preceding species, except that the carina on each side from the posterior tooth is obsolete immediately before the latter, but reappears at the middle of the disk as a second minute tooth. **Elytra** nearly as in the preceding species, except that the punctuation is very remote, even, minute, and distinct: punctures of the rows between the sutural striae more distant; humeri strongly but minutely toothed. **Abdomen** convex, remotely and very minutely punctulate; cusps at the base of the first dorsal segment very robust and strongly elevated. **Legs** slender; claws minute. Length 2.0 mm.

Cambridge, Massachusetts (Schwarz).

The above-described specimen is probably a female. Just before the large posterior spines of the pronotum there is a minute spongy-pubescent fovea. The emargination of the labrum and structure of the antennae and head abundantly distinguish this species from the two preceding, and the first character may prove useful in a future classification of our species. There are no carinae on the surface of the first ventral segment as in *Arthmius*, but instead a distinct rounded tubercle situated at the basal edge on each side. As far as I can observe the present species is provided with a terminal posterior tibial spur.

I notice in looking over M. Raffray's interesting descriptions of Pselaphidae (*Revue d'Entomologie*, 1882), that this author gives the name *simplex* to one of his species of *Batrissus*; as this name had already been applied by Dr. LeComte to a North American species of this genus (*Proc. Am. Phil. Soc.*, 1878, p. 598), it may perhaps be proper to propose the name *Raffrayi* for the former.

Pending a general revision of the species of this genus, which is surely needed, and which it is the intention of the author to attempt, provided sufficient material can be obtained, it may be stated that

there appear to be many good characters which may be employed for purposes of classification, amongst others the enlargement or not of the 10th joint of the antennae, the presence or not of spongy-pubescent foveae on the occiput, the terminal spur of the posterior tibiae—already used by Dr. LeConte—and the great variety in the modifications of the front in the males. In *denticollis* and *virginia* the general forms of body and antennae are so similar that they could scarcely be separated, but the heads in the males are entirely different in the character of the frontal and clypeal modifications.

EUPLECTINI.

The very minute insects included in this group form a very large and important section of the singular family Pselaphidae, and bear a very striking similitude to several genera of Staphylinidae, their general resemblance to the genus *Edaphus* being most remarkable and unaccountable; the latter may, however, be distinguished by their flexible and retractile abdominal segments, which are seven in number, while in the present group they are six in number and comparatively rigid; the minute structural characters are, of course, of an entirely different nature.

They appear to be rather rare as a rule, and are only occasionally met with, which is due, probably, to their comparatively secluded and little known habits, and their very small size; many new species and genera are undoubtedly yet to be discovered within the territory of the United States. The sexual characters are well marked, and occasionally present very curious structures in the males; these characters are not made use of to any great extent in the following scheme of classification, but are generally mentioned incidentally when sufficiently interesting.

The material employed is that contained in the cabinet of Dr. LeConte, together with a still larger set kindly communicated by Messrs. E. A. Schwarz and H. G. Hubbard, of Washington, and also a few specimens in my own collection. In the second mentioned was included one entirely new genus not contained in the collection of Dr. LeConte. The genera here considered are those having but a single tarsal claw, and may be distinguished by the following table, this being intended as a continuation of the one given in the Classification of the Coleoptera of North America, Sm. Misc. Coll. No. 507.

Tarsus with a single claw; front of head not produced; antennae straight.

First ventral segment much elongated; prosternum neither foveate nor carinate; last joint of antennae abruptly very robust.....**Trimium.**

First three segments of the abdomen sub-equal; prosternum bifoveate; last three joints of the antennae more or less gradually increasing in width.

Eyes present.

Prosternum not carinate.....**Euplectus.**

Prosternum and mesosternum having a distinct medial longitudinal carina; tenth joint of antenna unusually long and conspicuous.

Thesium.

Prosternum carinate; mesosternum not carinate.

Eyes well developed and large in both sexes; antennae very slender, club very slender and elongate; pronotum having two lateral canaliculations, but neither a transverse basal groove nor lateral foveae; prosternum very short.....**Faliscus.**

Eyes small and very coarsely granulated in the male, rudimentary in the female; pronotum with lateral foveae and transverse basal groove, without lateral canaliculations; club of antennae robust; prosternum very long.....**Nicotheus.**

Eyes wanting; prosternum having a distinct medial carina...**Eutyphlus.**

I have, much to my regret, been unable to obtain Dr. LeConte's types of *Trimium*, and since *Eutyphlus* contains but a single well-known species, it is proposed at the present time to treat of the four remaining genera alone. Reitter, in his recent tabular statement of the *Pselaphidae*, distinguishes his genus *Scotoplectus*, into which he absorbs *Eutyphlus* Lec., by the abnormal shortness of the elytra; as in *Eutyphlus* the elytra are normally much longer than the prothorax, I cannot without further evidence make the change of name.

EUPLECTUS Leach.

The species of this genus are more numerous and individually much more abundant than those of the others; they are very readily divided into two groups, depending upon the canaliculation or not of the pronotal disk. As a coincidence, and probably of no generic import, it is to be remarked that the species without the pronotal canaliculation have the entire lower surface of the head covered densely with long erect sensitive setae, while, with but one or two exceptions, these setae are entirely wanting in those with canaliculated pronotum. It is inferred that the setae are sensitive, since the tip of each is swollen into a bulbous knob, but why some of them should be provided with this additional sensory apparatus, while others, apparently similar in all other respects, should be entirely deprived of it, is one of the mysteries of nature which must probably forever remain unsolved.

The following table exhibits the arrangement adopted for the species under examination, but which before many years will represent, without doubt, scarcely more than two-thirds of the forms which will then be known, and it is even incomplete at the present day, as I have seen at least one undescribed species not here represented.

In *caricollis* there is a very feeble broadly impressed area in the middle of the pronotal disk, which appears to be a rudimentary canalliculation; it is, however, so feeble that I have placed the species in the second group; its very distinct form of prothorax will distinguish it without trouble.

Pronotum having a distinct medial longitudinal canalliculation or elongated canalliculate puncture.

Under surface of head having a large pad of erect sensitive setae; canalliculation of pronotum very narrow, extending with equal width from the base to the apex1. **canaliculatus.**

Under surface of the head without the large area of sensitive setae; canalliculation short.

Form generally somewhat robust; head strongly convex and deeply impressed behind the frontal ridge; interocular surface not distinctly punctate.

Minute species, not exceeding 0.8 mm. in length.

Form robust; color reddish-testaceous.....2. **pumilus.**

Form more slender; color dark blackish-castaneous....3. **debilis.**

Larger species, not less than 1.3 mm. in length.

Prothorax longer than wide; genae of head very long.

4. **longicollis.**

Prothorax about as long as wide.

Eyes small; genae rather long; form of body slender; abdomen narrow, rather rapidly narrowed toward the base.

5. **difficilis.**

Eyes larger; genae much shorter; form of body more robust; abdomen broader, just visibly narrowed toward the base.

6. **congener.**

Prothorax distinctly wider than long.

Pubescence very coarse, erect, and conspicuous; antennae long and very robust, strongly setose; males having two elongate spines protruding from beneath the third ventral segment; size large7. **sexualis.**

Pubescence scarcely noticeable, very fine, short, and recumbent.

Head wider than long.

Sides of prothorax broadly rounded throughout; male having two spines protruding from beneath the third ventral segment.....8. **spinifer.**

Sides of prothorax much more acutely rounded anteriorly, straight posteriorly9. **linearis.**

Head as long as wide.....10. **interruptus.**

- Form linear, depressed; sides parallel; head very large and flat; eyes small; genae long.
- Head strongly punctate toward the eyes.....11. **confluens.**
- Head not distinctly punctate; body extremely slender and linear; size very minute.....12. **pertenuis.**
- Pronotum not having a median canalication or punctiform impression upon the disk; under surface of head having a dense pad of erect setae.
- Prothorax strongly transverse; median impression near the base very large and almost circular, nearly one-half as long as the entire pronotum.....13. **cavicornis.**
- Prothorax very moderately or feebly transverse; posterior median impression moderate or small, strongly dilated laterally.
- Large species; pubescence very short and dense, giving an opaque appearance to the integuments.....14. **crinitus.**
- Integuments polished; pubescence scarcely noticeable.
- Larger species, not less than 1.4 mm. in length.
- Head very small.....15. **capitulum.**
- Head larger, as long and nearly as wide as the prothorax.
16. **decorus.**
- Minute species, not exceeding 1.2 mm. in length.
- Form very convex and rather robust; prothorax rather strongly narrowed behind, sides very evenly arcuate anteriorly; color pale reddish-testaceous.....17. **arcuatus.**
- Form somewhat depressed; color dark piceous-brown or piceous-black.
- Prothorax distinctly wider than long; sides feebly convergent posteriorly; color piceous-black throughout.....18. **leviceps.**
- Prothorax nearly quadrate, sides parallel; color of elytra blackish-castaneous, that of the remainder of the body piceous-brown.
19. **ruficeps.**

1. **E. canaliculatus** Lec.—Bost. Journ. VI. p. 107.—Form rather robust. Pubescence somewhat long, fine, and dense, pale fulvo-cinereous and rather conspicuous; color of body pale ferruginous throughout, shining. **Head** rather small, slightly broader than long; eyes moderate in size and prominence; genae scarcely prominent, shorter than the eye, strongly convergent behind; base broadly sinuate; interocular surface polished, somewhat asperate, extremely convex, having a conspicuous longitudinal medial canalication at the occipital declivity, and at more than one-third the length from the base, two very minute spongy-pubescent foveae, very close to the eyes, intermediate surface nearly three times as wide as the distance of either fovea from the eye, very strongly convex and prominent, abruptly, strongly, and conspicuously declivous at one-third the length from the frontal transverse ridge; the latter strongly arcuate anteriorly, swollen longitudinally in the middle, where it bears a small acute dorsal tubercle; immediately behind this inter-antennal ridge and along the bottom of the declivity of the inter-foveal convexity there is short, transverse, posteriorly arcuate channel dilated at the ends; supra-antennal tuberculations moderate, angu-

late externally, each crossed by a minute channel; antennae robust, as long as the elytra, club relatively slender, second joint but slightly wider than the following, joints nine and ten sub-equal in length, distinctly longer than the eighth, the former three-fourths wider than long, and two-thirds as wide as the latter, eleventh but slightly wider than the tenth, much elongated, acuminate; under surface of the head with a dense pad of erect sensitive setae. **Prothorax** large and robust, widest just behind the middle, where it is as wide as long, and slightly wider than the head; sides evenly and rather feebly arcuate anteriorly, nearly straight, minutely and irregularly denticulate posteriorly; apex two-fifths as long as the pronotal width, and two-thirds as long as the base; disk very convex, polished, finely, and sparsely asperate, having a narrow, strongly marked medial canaliculation, extending with equal width from very near the apex to the basal margin, and which is crossed at one-fourth the length from the base by a transverse straight channel of equal width and depth, which terminates laterally in rather small deeply impressed spongy-pubescent foveae. **Elytra** at base scarcely wider than the pronotum; sides rather strongly divergent posteriorly and strongly arcuate; disk very slightly shorter than wide, but slightly longer than the pronotum, very convex, shining, distantly and evenly asperate; sutural striae strong, close, arcuate; lateral striae nearly obsolete. **Abdomen** as wide as and shorter than the elytra; sides parallel and slightly arcuate; margin narrow and flat; surface very strongly convex, polished; first dorsal with two rather long, fine, divergent carinae. **Legs** rather long and slender; prosternum transverse, very flat; anterior coxae conical and very long. Length 1.1-1.2 mm.

Detroit, Michigan, 1; Odenton, Maryland, 1; Georgia, 2; Crescent City, Florida, 1.

This species, the description of which is taken from Dr. LeConte's type, a male, is so aberrant, especially in the structure of the head, anterior coxae, and in its short, broad, very convex abdomen, that it is questionable whether it is advisable to retain it in the present genus. The large lunate penultimate segment of the abdomen in the male is broadly depressed in the middle; the apical segment is partly enclosed by the preceding, as is usual, and is slightly wider than long. The species is widely diffused, but is apparently very rare.

2. **E. pumilus** Lec.—Bost. Journ. VI. p. 106.—Form moderately robust. Pubescence somewhat sparse, very short, recumbent, fine, and not conspicuous. Color of entire body ferruginous, legs and antennae paler. **Head** rather small; eyes rather large and prominent; genae not prominent, as long as the eye; interocular surface confusedly and coarsely granulose, shining, raised abruptly far above the eyes, nearly flat above, narrowed anteriorly, strongly sinuate at the middle of the base; having two very minute, round, spongy-pubescent foveae at two-fifths the length from the base, mutually much more distant than either from the eye, connected by an anteriorly arcuate parabolic channel of slight depth, as long as wide; inter-

mediate surface moderately convex; supra-antennal tuberculations small, somewhat prominent, connected by the moderately arcuate frontal ridge; antennae slender, but slightly longer than the head, club large, ninth and tenth joints equal in length, one-half wider than long, the latter one-third wider than the ninth, eleventh somewhat abruptly much wider, evenly conoidal, acuminate, elongated, as long as the four preceding joints together. **Prothorax** widest slightly in advance of the middle, very slightly wider than the head, and just visibly wider than long; sides arcuate anteriorly, nearly straight posteriorly; apex about one-half as long as the pronotal width, and three-fourths as long as the base, both slightly arcuate; disk strongly convex, coarsely granulose, shining; having a large, deep, elongated, fusiform, medial canaliculation; also having at one-third the length from the base a narrow, deep, posteriorly cusped, transverse groove, very slightly dilated at the middle into a fovea, and terminating at the sides in rather large, shallow, spongy-pubescent foveae. **Elytra** at base distinctly wider than the prothorax, sides distinctly divergent posteriorly and rather strongly arcuate; disk quadrate, rather convex, shorter than the head and prothorax together, smooth, almost impunctate, shining; sutural striae strong, close, and arcuate, lateral short and feeble. **Abdomen** slightly narrower than the elytra; sides nearly parallel and straight; border rather narrow and slightly inclined; surface rather convex, shining, impunctate; first three segments equal: first two dorsals with two distant, excessively short, and feeble divergent carinae. **Legs** rather short and slender. Under surface of the head apparently with a few widely scattered sensitive setae anteriorly. Length 0.7 mm.

South Carolina, 1.

Described from Dr. LeConte's unique type.

This species greatly resembles *debilis* Lec. in everything but color, and differs from it in its smaller size, more robust form, less smooth and polished integuments, and in the shape of the pronotum, which is slightly less narrowed anteriorly than in that species. The carinae of the dorsal segments are so small and obscure that I am not absolutely sure of their existence, because of the somewhat imperfect condition of the type.

3. **E. debilis** Lec.—Proc. Am. Phil. Soc. XVII. 1878, p. 386, No. 29.—Form slender. Pubescence sparse, short, cinereous, rather inconspicuous, with much longer, very widely scattered setae upon the abdomen. Color piecous-brown, antennae and legs distinctly paler, elytra slightly darker; integuments highly polished. **Head** small, slightly wider than long; eyes small, convex, and very prominent; genae very small, rather acutely rounded, shorter than the eye; base broadly and feebly sinuate throughout; interocular surface abruptly and very strongly elevated, moderately convex above, not punctate; having two small, deeply impressed foveae at one-half the length from the posterior angles, mutually slightly more distant than either from the eye, connected by an anteriorly arcuate, parabolic, feebly impressed, and narrow channel, which terminates completely in the foveae; supra-antennal tuberculations small, angulate, and not very prominent,

connected by a distinctly rounded, transverse, and somewhat feeble ridge; antennae more than two-thirds longer than the head, slender, eighth, ninth, and tenth joints sub-equal in length, increasing uniformly and rapidly in width. **Prothorax** widest just visibly in advance of the middle, where it is as wide as long, and slightly wider than the head; sides very feebly arcuate anteriorly and nearly straight posteriorly; apex one-half as long as the pronotal width, and three-fourths as long as the base; disk very strongly convex: having a slender, medial, fusiform canaliculation attaining neither the apex nor the transverse channel; the latter is at a little more than one-fourth the length from the base, nearly straight, narrow but distinct, strongly and abruptly cusped posteriorly in the middle, and terminating at the sides in two rather large, rounded foveae. **Elytra** at base distinctly wider than the pronotum; sides almost parallel, rather distinctly arcuate; disk moderately convex, very coarsely and excessively faintly impressed, distinctly longer than wide, and nearly as long as the head: sutural striae strong, arcuate, lateral extremely short, broadly impressed, and rudimentary. **Abdomen** distinctly narrower than the elytra; sides parallel and straight; surface impunctate, broadly convex; first three dorsal segments equal, basal ones without any visible carinae. **Legs** rather short and slender. Length 0.7-0.8 mm.

Tampa, Florida, 3; Capron, Florida, 1.

The description is taken from Dr. LeConte's type, which is a female. I cannot distinguish Dr. LeConte's *tenuis* (l. c. No. 30) from this species by any characters which are worthy of mention. The lateral striae of the elytra appear to be much longer and stronger in some specimens than in others, and the pubescence is easily rubbed from the elytra. The head is noticeably broader in the males than in the females.

The identity of *tenuis* with the above-described form is rendered still more probable from the fact that two specimens before me, apparently not possessed by Dr. LeConte, and collected at Tampa on the same day, and therefore probably at the same spot as the specimen described by him as *debilis*, resemble much more closely, and in fact are almost exactly similar to his unique type of *tenuis* from Capron.

4. **E. longicollis** n. sp.—Form slightly robust. Pubescence of head and prothorax very sparse, short, and inconspicuous, that of the elytra and abdomen rather long, fine, dense, and conspicuous, pale fulvo-cinereous. Color of head, pronotum, and antennae rufo-testaceous, that of the elytra, legs, and abdomen paler, more flavate, rather ferruginous. **Head** large, as long as wide; eyes rather large, not very prominent; genae slightly convergent and arcuate, much longer than the eye; base broadly and evenly sinuate; interocular surface broadly, very strongly, evenly, and, in the posterior third, uninterruptedly convex, polished, coarsely, but rather feebly punctate at the sides, entirely impunctate along the middle; having at two-fifths the length from the base two very small and feebly impressed rounded

spongy-pubescent foveae, mutually one-third more distant than either from the eye, connected by an anteriorly arcuate convergent channel, which near the foveae is very feebly impressed, but which, behind the frontal ridge, is longitudinally widened, much more deeply impressed, and nearly transverse; supra-antennal tuberculations large, callous, and prominent, angulate externally, each having behind the callosity a small, round puncture; connected by the feebly arcuate, rounded, transverse, frontal ridge: antennae one-third longer than the head, somewhat slender, club robust, ninth joint slightly longer than the eighth, twice as wide as long, three-fourths as long and wide as the tenth, eleventh as wide as long, slightly wider than the tenth, sides nearly parallel, abruptly and acutely produced in the middle at apex: last joint of the maxillary palpi rather long, slender. **Prothorax** widest just before the middle, where the sides are just visibly convergent and feebly arcuate, then much more strongly convergent and feebly sinuate anteriorly, and moderately convergent and nearly straight posteriorly, feebly and minutely sinuate just behind the middle: apex fully one-half as long as the pronotal width, and three-fourths as long as the base: disk strongly convex, polished, impunctate, slightly narrower than the head, and distinctly longer than wide: having just before the middle an elongated, oval, median puncture, and, at one-fifth the length from the base, a transverse, posteriorly cusped, very feeble groove, dilated at the point into a deep punctiform impression, and terminating at the sides in two small, very deeply impressed foveae. **Elytra** at base distinctly wider than the pronotum: sides very feebly divergent posteriorly, and moderately arcuate: disk slightly longer than wide, rather feebly convex, polished, impunctate: sutural striae deep, arcuate, lateral two-fifths as long as the elytra, distinct. **Abdomen** very slightly narrower than, and equal in length to the elytra: sides just visibly divergent posteriorly and straight: border wide and very feebly inclined: surface rather convex, shining, very slightly and sparsely asperate: first three dorsal segments equal in length: first two with two rather close divergent carinae, which are rather long and prominent. **Legs** rather long and slender. Length 1.3 mm.

Deer Park, Maryland, 1.

The description is taken from the unique specimen which is a male; the terminal ventral segment is strongly convex, and the penultimate has a very deep transverse impressed channel; the posterior edges of the third and fourth segments are sinuate and produced in the most complex and indescribable manner. The species is very distinct in appearance, because of the peculiar conformation of the head, with its very long genae, and also on account of the elongated prothorax.

5. **E. difficilis** Lec.—Bost. Journ. VI. p. 106.—Form slender: sides parallel. Pubescence very fine, short, pale, moderately plentiful; color of body rufo-testaceous: legs and tips of antennae just visibly paler. **Head** rather large, as long as wide; eyes rather small, but prominent: genae large, convergent behind, much longer than the eye; base sinuate in the

middle; interocular surface impunctate and highly polished, with an elongated median puncture at the base, and two small, circular, spongy-pubescent foveae at more than one-third the length from the base, and but slightly more widely separated than either from the corresponding eye; intermediate surface rather strongly convex; from each fovea proceeds a narrow impressed channel, the two being at first parallel and then convergent, coalescing anteriorly by a very wide channel behind the frontal ridge; supra-antennal tuberculations very strong, angulate externally, joined by a transverse and very strong ridge; antennae one-third longer than the head, moderately slender, club somewhat robust, ninth joint no longer than the eighth, twice as wide as long, tenth one-half longer and wider than the ninth, eleventh very slightly wider than the tenth, scarcely wider than long, nearly globular, abruptly acuminate at tip. **Prothorax** widest at one-third its length from the apex, where it is slightly narrower than the head, and as broad as long, contiguous sides parallel for a short distance, thence convergent and broadly reëntrant behind; apex one-half as long as the greatest width, and two-thirds as long as the base, both feebly arcuate; disk rather strongly convex, polished, minutely and sparsely punctulate; having a deep, elongated, medial puncture slightly before the middle, also a large, deeply impressed, medial fovea at a little more than one-fourth the length from the base, and two lateral, circular, spongy-pubescent foveae behind the middle, connected with the medial one by an extremely narrow and feeble groove, which is scarcely visible. **Elytra** at base very slightly wider than the pronotum, and about as wide as the head; sides nearly parallel and rather strongly arcuate; disk distinctly longer than wide, and somewhat shorter than the head and prothorax together, extremely minutely and sparsely punctulate, rather feebly convex; sutural striae strong, feebly arcuate, very close, lateral short, broadly impressed; humeri rather prominent. **Abdomen** at base slightly wider than the elytra; sides feebly divergent posteriorly and straight; first two with two rather long and well-marked divergent carinae proceeding from the extremities of transverse spongy-pubescent patches; border strong, nearly flat; surface polished, feebly convex, scarcely punctulate. **Legs** well developed; middle femora slightly swollen. Length 1.2 mm.

Georgia, 1.

Described from the unique type in Dr. LeConte's collection.

6. **E. congener** n. sp.—Form rather slender. Pubescence somewhat short, coarse, and dense, semi-erect, pale, and rather conspicuous; color of body rather dark reddish-testaceous throughout, legs slightly paler and more flavate. **Head** rather large, slightly broader than long; eyes large, prominent; genae not prominent, slightly longer than the eye, very convergent; base broadly sinuate, with a slight medial puncture; interocular surface slightly punctulate toward the eyes; having, at slightly more than one-third the length from the base, two minute, round, spongy-pubescent foveae which are mutually scarcely more distant than either from the adjacent eye, connected by an anteriorly arcuate parabolic channel, which also extends divergently behind them toward the genae; intermediate surface strongly and narrowly convex, impunctate, and polished; supra-antennal tubercula-

tions very large and prominent, strongly angulate externally; connecting ridge feebly arcuate anteriorly and somewhat strongly depressed in the middle; antennae two-fifths longer than the head, somewhat slender, club short and rather robust, joints three to eight moniliform, eighth very slightly shorter than the seventh, and very slightly transverse, ninth as long as the eighth, nearly twice as wide as long, tenth one-half longer and two-thirds wider than the ninth, eleventh as wide as long, very slightly wider than the tenth, abruptly truncate anteriorly, and acutely produced at the immediate vertex. **Prothorax** widest just in advance of the middle, where it is as wide as the head, and scarcely as wide as long; sides thence very slightly convergent and feebly arcuate for a short distance, and then abruptly very strongly convergent and feebly sinuate anteriorly, convergent, straight, and feebly undulated posteriorly; apex very slightly less than one-half as long as the pronotal width, and two-thirds as long as the base; disk rather strongly convex, polished, very minutely and sparsely punctulate; having a small, elongated puncture just before the middle, and a broadly dilated foveate impression at about one-fourth the length from the base, which is connected with the deep, circular, spongy-pubescent lateral foveae just behind the middle by narrow, arcuate, well-marked grooves. **Elytra** at base as wide as the head; sides moderately divergent posteriorly and rather strongly arcuate; disk just visibly longer than wide, rather strongly convex, shining, not punctate; sutural striae strong, close, nearly straight, lateral obsolete, except in the basal third, where they are broadly and feebly impressed; humeri rather prominent. **Abdomen** at base very slightly narrower than the elytra; sides slightly divergent posteriorly and straight; border strong, slightly inclined; surface broadly convex, polished, very minutely and sparsely punctulate; first three dorsals exactly equal in length; first two with two rather close, strongly divergent basal carinae, those of the first longer and stronger than those of the second. **Legs** long, rather slender; middle femora of male swollen. Length 1.5 mm.

Washington, District of Columbia, 3.

The description is taken from a male in order to better compare it with *difficilis* to which it is extremely closely allied. It differs in the shorter and much more robust terminal joint of the maxillary palpi, in its slightly more robust form of body, especially behind, and in its distinctly shorter and broader abdomen, sides of the elytra more divergent and arcuate, and in the sexual characters. The apical edge of the third ventral segment in *difficilis* is completely entire without any trace of irregularity, while in *congener* it is produced for a short distance in the middle; the fourth segment is relatively shorter and has a distinct median tubercle; the sixth segment is broader and shorter and more broadly rounded anteriorly than in *difficilis*.

We have here an instance of cases which frequently arise in systematic investigations of this nature, and which are extremely puzzling. After careful scrutiny of the general form of the insect we are almost morally convinced of the identity of two specimens, but upon more

minute study certain modifications of special organs are seen which are quite positive, but the nature and importance of which we cannot from our very limited knowledge interpret with any degree of certainty. Probably the best course to pursue in such a dilemma is to describe the aberrant form and let the truth be discovered in the future, when more material shall have been accumulated. In this case it is very desirable to obtain a series of *difficilis*, in order to see what variations occur in its male sexual characters.

7. **E. sexualis** n. sp.—Form robust. Color throughout uniformly rather dark reddish-ferruginous, legs just visibly paler; pubescence sparse, very long, bristling and coarse, somewhat conspicuous, especially on the elytra and abdomen; integuments very highly polished, very remotely, minutely, and feebly punctulate. **Head** rather large, a little broader than long; eyes moderate, very convex, and prominent; genae not prominent, strongly convergent, as long as the eye; base transversely and rather strongly sinuate; interocular surface having two round, feebly impressed, spongy-pubescent foveae at one-third the length from the base, three-fourths more widely separated than either from the eye, connected by an anteriorly arcuate parabolic impressed channel, slightly longer than the distance between the foveae, and becoming more longitudinally dilated and deeply impressed at the apex just behind the frontal ridge; the impressed channel does not terminate posteriorly in the foveae, but extends behind them toward the genae; intermediate surface very strongly and prominently convex, very gradually declivous anteriorly nearly throughout its length; supra-antennal tuberculations very large and strongly developed, swollen and angulate externally, connected by the nearly straight, transverse, and very strong frontal ridge, which, however, becomes lower and very narrow in the middle, where it is feebly notched; labrum very strongly constricted at base, anterior margin transverse, lateral angles very acute; antennae nearly as long as the head and prothorax together, very robust, coarsely setose, joints three to eight very slightly transverse, just visibly increasing in width, eighth scarcely narrower than the second, ninth transversely oval, scarcely one-third wider than long, tenth somewhat longer, nearly twice as wide as long, eleventh distinctly wider than the tenth, ovular, finely, abruptly, and strongly produced at the tip. **Prothorax** widest just before the middle, where it is distinctly wider than long and very slightly narrower than the head; sides arcuate anteriorly, straight posteriorly; apex less than one-half as long as the pronotal width and two-thirds as long as the base; disk broadly convex, having a very narrow elongated fusiform impression in front of the middle, and, at one-third the length from the base, a nearly transverse deeply impressed channel, broadly dilated and deepened into a very prominent impressed puncture in the middle and terminating laterally in two circular deeply impressed spongy-pubescent foveae; the basal margin also has an indentation just within each basal angle. **Elytra** at base slightly wider than the pronotum; sides rather strongly divergent and strongly arcuate; disk rather strongly convex, nearly quadrate; sutural striae very strong, close,

feebly arcuate, lateral broadly impressed, rather long; humeri and basal foveae strong. **Abdomen** scarcely narrower than the elytra; sides parallel and straight; border strong and flat; surface broadly convex, first three dorsal segments equal; first two having two nearly parallel narrow and rather distant carinae through nearly their entire length which are very strong and prominent, also very slightly incurvate at tips. **Legs** long and slender. Length 1.6 mm.

South Carolina, 1 ♂.

A clear description of the very wonderful sexual characters in the male of this species is very difficult. The third ventral segment is broadly and feebly emarginate in its middle third at apex, with the lateral angles of the emargination swollen and feebly and roundly produced, the surface bordering the same impressed; from under the third segment two strong widely divergent distant spines protrude, extending along the surface of the fourth and almost contiguous with it; they are slightly incurvate at the tips and very acute. The fourth segment is very strongly and acutely sinuate anteriorly in the middle, broadly roundly and very strongly emarginate throughout its width posteriorly; having in the middle and dividing it equally in width two small strong tubercles. Fifth segment also strongly emarginate throughout posteriorly and having its surface very broadly impressed, the impression having a small impressed puncture at each lateral extremity; the sixth segment is abruptly very strongly convex, feebly and roundly produced posteriorly, obtusely angulate anteriorly, slightly wider than long, rather strongly carinate throughout its length in the middle.

The species is one of the largest and finest of the genus and is very distinct in all its characters.

8. ***E. spinifer*** n. sp.—Form somewhat robust. Pubescence fine, close, rather sparse and inconspicuous. Color throughout rather dark reddish-ferruginous, legs slightly paler; integuments highly polished and impunctate. **Head** rather large, slightly wider than long; eyes rather large and moderately prominent; genae prominent, almost parallel, longer than the eye; base broadly and very feebly sinuate; interocular surface having two rather small circular spongy-pubescent foveae at more than two-fifths the length from the base opposite the anterior third of the eyes, mutually two-thirds more distant than either from the eye, connected by an anteriorly arcuate parabolic impressed channel, rather acute and longitudinally expanded anteriorly and slightly longer than the width at the foveae; intermediate surface strongly convex, bearing at the base of the occiput an elongated canalicular puncture; supra-antennal tuberculations very large and prominent, roundly angulate externally and joined by a rather prominent slightly arcuate ridge, much depressed in the middle; antennae about one-half longer than the head, rather slender, club somewhat short and robust, ninth joint slightly longer than the eighth, twice as wide as long,

two-thirds as long and wide as the tenth, both transversely elliptical, eleventh very slightly wider than the tenth, slightly longer than wide, abruptly produced in the middle at tip; last joint of the maxillary palpi very short and robust, conoidal, scarcely one-half longer than wide. **Prothorax** widest at one-third its length from the apex where it is about as wide as the head and about one-sixth wider than long; sides rather strongly arcuate anteriorly, somewhat feebly and evenly so posteriorly; apex scarcely one-half as long as the pronotal width and nearly three-fourths as long as the base, both feebly arcuate; posterior angles rounded; disk rather feebly convex, having a rather deep slightly elongated oval puncture just before the middle, and, at one-third the length from the base, a transverse somewhat slender but deeply impressed posteriorly cusped groove, expanded at the cusp point into a large naked punctiform impression and terminating at the sides in large rounded rather shallow spongy-pubescent foveae. **Elytra** at base very slightly wider than the pronotum; sides very feebly divergent posteriorly and somewhat feebly arcuate; disk very slightly longer than wide, moderately convex; sutural striae close, nearly straight, strong, lateral nearly one-half as long as the elytra, rather well marked, originating in rather large spongy-pubescent foveae; humeri moderately prominent. **Abdomen** very slightly shorter than the elytra, and very slightly narrower; sides parallel and straight; border inclined; surface moderately convex; first three dorsal segments sub-equal in length; first two having two strongly divergent strongly marked carinae through slightly more than the basal half. **Legs** rather short and robust; prosternal foveae large; under surface of the head without erect sensitive setae; terminal claw of tarsi very long and strong. Length 1.2-1.3 mm.

Columbus, Texas, 2; Georgia? 1.

The description is drawn from a male. The sexual characters of this species are, in the male, very singular nearly equalling in this respect those of *sexualis*. The third ventral segment is feebly and narrowly sinuate in the middle and slightly swollen at each side of the sinuation; beyond these swellings laterally two long stout spines protrude from beneath the segment, which are nearly parallel, externally arcuate, and feebly hooked internally at tip; they pass over and touch the surface of the fourth and a part of the fifth segments; the anterior portion of the fourth segment is emarginate in the middle; the fifth is transversely lunate and partly encloses the terminal segment; it is transversely impressed in the middle; the terminal segment is slightly wider than long, angularly and feebly produced anteriorly, and more roundly and equally feebly so posteriorly, surface convex, sparsely punctate and feebly carinate along the middle. In the female these striking characters entirely disappear, and the terminal segment is simply very abruptly strongly and acutely produced in the middle; this sex also has the terminal joint of the maxillary palpus less robust.

9. **E. linearis** Lec.—Bost. Journ. VI. p. 104.—Form somewhat slender. Pubescence coarse, rather long and abundant, evenly distributed, pale fulvoinereous with long widely scattered setae on the abdomen; color of entire body and antennae ferruginous, legs paler and more flavate. **Head** large, wider than long; eyes large, moderately prominent; genae not prominent, shorter than the eye; interocular surface polished and impunctate, having at the middle of the base a small puncture, and above two small spongy-pubescent foveae at one-third the length from the base, rather widely separated; intermediate surface strongly convex; foveae connected by an anteriorly curvate elongate parabolic channel, which is strongly impressed; supra-antennal tuberculations elongated and very strong, each crossed by a narrow channel, connected by a straight transverse ridge which is prominent and slightly less elevated in the middle; antennae nearly as long as the head and prothorax together, robust, second joint much smaller than the first, club elongated, ninth joint more than twice as wide as long, slightly narrower and scarcely more than one-half as long as the tenth, eleventh scarcely wider than the tenth, as long as the three preceding joints together, elongated, conoidal, rather finely acuminate. **Prothorax** widest slightly in advance of the middle where it is distinctly wider than long and about as wide as the head; sides arcuate anteriorly, nearly straight posteriorly; apex transverse, much less than one-half as long as the pronotal width and two-thirds as long as the base which is rather strongly arcuate; disk polished, rather broadly convex, strongly evenly finely and rather sparsely punctate; median canaliculation strong, long and narrow, fusiform; at one-third the length from the base there is a transverse posteriorly cusped channel expanded at the cusp point and at the ends into round deeply impressed foveae, the lateral ones the stronger. **Elytra** at base just visibly wider than the pronotum; sides very slightly divergent posteriorly, slightly arcuate, more strongly so toward the tips; together transversely truncate behind; disk slightly longer than wide, moderately convex, rather depressed at the base, polished, very minutely and sparsely punctulate; sutural striae very strong, nearly straight, close, lateral well marked, one-half as long as the elytra; humeri prominent. **Abdomen** very slightly narrower than the elytra; sides parallel and straight; border very wide but flat; surface very feebly convex, polished, finely and very distantly punctulate; first three segments equal in length; first and second dorsals with two rather short slightly divergent carinae at base; under surface of abdomen more coarsely strongly and closely punctate than the upper; last ventral segment angularly produced and rounded behind, with a very fine medial carina. Under surface of the head lacking the long erect sensitive setae, these being replaced by a fine close pubescence; punctures large deep and close. Length 1.3–1.6 mm.

Georgia, 5; Florida, 7; Detroit, Michigan, 1.

A very common species and apparently much more abundant at the South. The description is taken from Dr. LeConte's type, which is a male; the last ventral segment appears to be more produced at tip in the female, and is not carinate.

10. **E. interruptus** Lec.—Bost. Journ. VI. p. 105.—Form rather robust. Pubescence coarse, rather long, abundant, pale flavo-cinereous. Color throughout ferruginous; legs very slightly paler. **Head** rather large, as wide as long; eyes moderate, prominent; genae not prominent, as long as the eyes; interocular surface roughly punctate at the sides, polished and impunctate in the middle, having two very small widely separated spongy-pubescent foveae at one-third the length from the base, connected by an anteriorly curvate parabolic deeply impressed groove, longer than wide; intermediate surface very strongly convex; supra-antennal tuberculations very strong, angulate externally, connected by an almost transverse acute and prominent carina; antennae nearly as long as the head and prothorax together, robust, club relatively slender, basal joint much more robust and elongated than the second, joints three to eight moniliform, equal in width, the latter shorter than the seventh and distinctly transverse, ninth longer than the eighth, not twice as wide as long, trapezoidal, tenth longer and wider than the ninth, two-thirds wider than long, trapezoidal, eleventh slightly wider than the tenth, slightly wider than long, abruptly and acutely produced in the middle at apex; last joint of maxillary palpi very robust, conoidal. **Prothorax** widest at the middle where it is much wider than long and very slightly wider than the head; sides very strongly arcuate anteriorly and slightly sinuate posteriorly; base nearly twice as wide as the apex; disk strongly convex, polished, sparsely and very minutely punctulate; medial puncture very small, at the centre, elongated, posterior impression very wide, transverse, cusped, groove at one-fourth the length from the base, lateral foveae small, very deep, spongy-pubescent. **Elytra** at base slightly wider than the pronotum; sides very feebly divergent, rather strongly arcuate; disk quadrate, moderately convex, polished, very minutely punctulate; sutural striae well marked, lateral also distinct through the basal half; humeri prominent. **Abdominal** segments very slightly narrower than the elytra; sides parallel and straight border very wide and flat; surface feebly convex, polished, very minutely punctulate; first three segments equal; first two dorsals with two strongly divergent well-marked carinae, nearly two-thirds as long as the segment. **Legs** rather slender; femora very moderately robust. Length 1.4–1.6 mm.

Washington, District of Columbia, 2; Lee County, Virginia, 1; Georgia, 2; Jackson, Mississippi, 1.

A very well-marked species. The description is taken from a male, LeConte's type; the sexual characters are somewhat noticeable. The apical edge of the third ventral segment has two lateral callosities, from each of which proceeds posteriorly a short obtuse tooth; the anterior margin of the fourth is emarginate in the middle; the last segment is obtusely produced in the middle, and has a narrow medial carina; its surface is very convex and is strongly punctate. In the female the sixth segment is much broader, and is more strongly and abruptly produced in the middle.

11. **E. confluens** Lec.—Bost. Journ. VI. p. 105.—Form slender, depressed; sides parallel. Pubescence rather fine and dense, recumbent, very pale; color of body pale reddish-testaceous, elytra sometimes slightly paler than the head and prothorax, antennae and legs scarcely paler. **Head** very large, flat above, slightly wider than long; eyes rather small, moderately prominent; genae prominent, obtusely rounded, slightly longer than the eye; base transverse, distinctly sinuate in the middle; interocular surface coarsely strongly and closely punctate at the sides, impunctate along the middle, having a strong median carina at base, very flat throughout behind, having two minute naked foveae at one-third the length from the base, mutually as distant as either from the adjacent eye; intermediate surface feebly convex, each fovea is continued anteriorly by a moderately deep irregular canalication, the two being parallel and scarcely joined anteriorly; supra-antennal tuberculations rather prominent, joined by a very broadly arcuate and rather feeble ridge; antennae barely one-third longer than the head, rather slender, club small, joints three to eight very small, moniliform, equal in width, eighth shortest, ninth one-half wider than long, wider than the eighth, equal in length to the tenth, tenth one-third wider than the ninth, eleventh very slightly wider than the tenth, nearly as wide as long, sides parallel; second joint of the maxillary palpi long, feebly clavate. **Prothorax** widest distinctly before the middle where it is just perceptibly wider than long and distinctly narrower than the head; sides very feebly sinuate anteriorly, minutely undulated but nearly straight posteriorly, very strongly convergent; apex scarcely one-half as wide as the greatest pronotal width, three-fourths as long as the base, both very feebly arcuate; disk very feebly and coarsely punctulate, shining, having an elongate medial canaliculate puncture, also a small very deep medial fovea at one-fourth the length from the base, which is sometimes partially confluent with the medial canalication, also two lateral deeply impressed foveae not connected with the medial one by an impressed channel. **Elytra** at base as wide as the pronotum; sides nearly parallel, feebly arcuate; disk depressed, slightly longer than wide and slightly shorter than the head and pronotum together, polished, scarcely punctulate; humeri prominent; sutural striae very strong, arcuate toward the apices, approximate, lateral distinct, becoming obsolete at two-fifths the length from the base. **Abdominal** segments nearly as wide as the elytra, very gradually increasing in width posteriorly; first three of equal length; first two dorsals with two short rather approximate strongly divergent and feeble carinae; border strong, flat; surface feebly convex, shining, scarcely punctate. **Legs** short and slender. Length 1.2-1.4 mm.

Middle States, 2; Cambridge, Massachusetts, 1; Washington, District of Columbia, 1; Lee County, Virginia, 1; Lake Superior, 1.

The description is taken from Dr. LeConte's type, a female. The males are smaller and apart from a slightly more slender antenna, present no appreciable difference, except in regard to the sexual characters proper, which are very marked. The third ventral segment is abruptly and strongly bisinuate in its middle third at apex;

the sinuous portion having tufts of fine pale setae projecting posteriorly; the terminal segment is lozenge-shape, slightly broader than long and more acutely angulate anteriorly than posteriorly, surface flat, very minutely punctulate, and carinate along the middle. The under surface of the head in both sexes is strongly and coarsely punctate, but does not possess the erect sensitive setae.

The species is recognizable at a glance by its parallel depressed form and very large flat head.

12. E. pertenuis n. sp.—Form very slender; sides parallel. Pubescence fine, short, rather dense and conspicuous on the elytra and abdomen; color throughout dark ferruginous-red; integuments slightly rough, finely and very indistinctly punctulate and nearly opaque. **Head** very large, nearly as long as wide; eyes large, round, not prominent, scarcely visible from above; genae very long, convergent, arcuate, longer than the eye; base broadly and rather strongly sinuate; interocular surface nearly flat above; punctures distinct and isolated laterally; having at nearly one-half the length from the base two very small shallow spongy-pubescent foveae, mutually but very slightly more distant than either from the eye, from which there extend anteriorly two narrow convergent rather deeply impressed channels, connected behind the frontal ridge by a short straight transverse channel equally wide and deep; intermediate surface strongly convex and somewhat abruptly declivous anteriorly; supra-antennal tuberculations not distinct, squarely angulate over the antennae, connected by the feebly arcuate and rather prominent frontal ridge; antennae very short and robust, joints three to ten transverse, joints nine and ten equal in length and no longer than the eighth, the former two and one-half times, the latter more than three times as wide as long, eleventh slightly wider than the tenth, scarcely longer than wide, conoidal, acuminate; labrum small, deeply bilobed; maxillary palpi robust, third joint small, transversely emeate, second very robust at tip, fourth conical, finely acuminate, not twice as long as wide. **Prothorax** widest slightly before the middle where it is slightly narrower than the head and just visibly longer than wide; sides at this point rounded, feebly sinuate anteriorly, nearly straight posteriorly; apex one-half as long as the pronotal width and four-fifths as long as the base; disk strongly convex, having just before the centre a rather large oval impressed puncture, and, at one-fifth the length from the base, a transverse punctiform impression strongest posteriorly and extending laterally and anteriorly, the arms becoming obsolete before reaching the very small shallow lateral foveae situated at one-third the length from the base. **Elytra** at base scarcely perceptibly wider than the head; sides nearly parallel and very feebly arcuate; disk nearly one-fourth longer than wide, moderately convex; sutural striae strong, not very close, feebly arcuate, lateral very short, oblique and narrow; humeri rather prominent. **Abdomen** at base very slightly narrower than the elytra; sides distinctly divergent posteriorly and straight, so that the third segment is slightly wider than the elytra and quite as wide as the head; border rather strong; surface narrowly convex; first three dorsal segments

equal in length; first two with two short rather distant fine and excessively feeble carinae. **Legs** rather long, slender. Length 0.95 mm.

Washington, District of Columbia, 1 ♀.

This singular species is so different in shape from the usual typical form of the genus, and differs in so many of its minor characters that it almost seems as if it should be placed at least in a subgenus, and as far as possible removed from *caudiculatus*. The very robust maxillary palpi, bilobed labrum, and eyes scarcely visible from above but almost entirely so from beneath, are the most salient of these aberrant characters.

13. **E. cavicollis** Lec.—Proc. Am. Phil. Soc. XVII. p. 387.—Form moderately robust; color of head and prothorax dark piceo-rufous, of the elytra, legs and antennae paler, reddish-testaceous; abdomen darker than the elytra; pubescence rather abundant, coarse, setiform and conspicuous; integuments polished, punctate. **Head** large, very slightly wider than long, truncate anteriorly; basal angles obsolete; eyes rather large, moderately prominent; interocular surface having two deep straight strongly convergent channels beginning opposite the eyes and joined, just behind the strongly raised anterior edge of the epistoma, by a short arcuate groove; intermediate surface strongly convex; at the base of the occiput there is a short medial carina, and toward the sides the surface is densely, evenly and very minutely punctate; antennal tuberculations prominent; antennae moderately robust, as long as the head and prothorax together, penultimate joint as long as the preceding, twice as wide as long, eleventh as long as the three preceding together. **Prothorax** widest at one-third the length from the apex where it is very slightly wider than the head and distinctly wider than long; sides thence very strongly convergent anteriorly and strongly sinuate, slightly less convergent posteriorly and nearly straight; anterior margin much shorter than the base, feebly arcuate, the latter transverse; disk strongly convex, finely and evenly punctate, punctures strong and widely separated; near the base there is a very large nude pit-like impression, not connected with the lateral impressions which are very deep and irregular; in the middle anteriorly there is a very feeble longitudinal impression which is so slight as to be scarcely visible. **Elytra** at base just perceptibly wider than the pronotum; sides feebly divergent; together transversely truncate behind; suture about one-half longer than the pronotum; disk finely punctate, punctures arranged in rows near the suture, very minute; sutural striae approximate, straight, rather strong; there are also on each elytron at the base three impressed pits, the two exterior being arranged in a nearly longitudinal line, prolonged posteriorly by a very feeble impressed channel rapidly becoming obsolete; humeri prominently swollen. **Abdominal** segments increasing slightly in width; first slightly narrower than the contiguous elytra; surface moderately convex, polished, impunctate; border strong; first two segments having two distant widely diverging prominent basal carinae. **Legs** rather short and robust; tarsi narrower at base; claw long, rather strongly arcuate, testaceous. Length 1.4 mm.

Tampa, Florida, 3.

This extremely well-marked species is described from Dr. LeConte's type specimen; all its characters are of pronounced singularity. The posterior extremities of the frontal canaliculations are scarcely perceptibly dilated, and do not, as far as I can observe, terminate in foveae as mentioned by Dr. LeConte.

Although possessed of a medial longitudinal impression on the anterior portion of the pronotum, I have included this species in the section without such canaliculation because of its excessive feebleness and diffuseness, and on account of the analogy which the species bears to the latter in most of its characters.

14. **E. crinitus** Brend.—Proc. Phil. Soc. Phil. 1865, p. 260.—Form rather robust; pubescence pale flavo-cinereous, very dense, uniformly distributed, conspicuous, having a few much longer setae on the abdomen; color throughout pale ferruginous, legs and antennae not paler; integuments feebly shining. **Head** much broader than long; epistoma arcuate anteriorly; posterior angles obsolete; eyes rather large and prominent; interocular surface not punctate, having two round very deeply impressed foveae, pubescent at the bottom and on a line with the anterior portions of the eyes, mutually nearly twice as distant as either from the eye; intermediate surface entire, very convex; anterior canaliculations strongly convergent and extremely feeble; supra-antennal tuberculations very prominent; antennae robust, tenth joint twice as wide as long, eleventh unusually slender, elongated, gradually acuminate toward tip, slightly longer than the three preceding together. **Prothorax** large, much longer and just visibly wider than the head, widest at one-third its length from the apex where it is very slightly wider than long; sides thence very strongly convergent and slightly arcuate anteriorly, slightly less convergent and slightly sinuate posteriorly; anterior margin shorter than the base, nearly equally and feebly arcuate; disk moderately convex, very feebly punctulate; having at one-fourth the length from the base a very strong transverse canaliculation which is strongly cusped posteriorly in the middle, cusp-point but slightly dilated into a puncture, arms terminating laterally in small deeply impressed spongy-pubescent foveae. **Elytra** at base slightly wider than the pronotum; sides just visibly divergent posteriorly, scarcely one-fifth longer than the width at base, rather strongly and evenly arcuate throughout; together transversely truncate behind; suture nearly one-half longer than the pronotum; disk depressed, finely feebly and confusedly punctulate; sutural striae outwardly arcuate, strong; at the base of each elytron there is a longitudinal impression which entirely disappears at one-third the length posteriorly; humeri prominent. **Abdominal** segments as wide as the contiguous elytra; sides parallel; margin strong; surface very feebly convex, confusedly and minutely roughened; first and second segments having at the base two short distant feeble carinae which are somewhat strongly divergent. **Legs** slender. Length 1.6 mm.

Detroit, Michigan, 1; Lee County, Virginia, 3.

The fourth joint of the maxillary palpi is moderately robust and much longer than the first two together; the tarsi are very slender with the second and third joints much elongated. The under surface of the head is covered densely with long erect setae, which are dilated at tip.

15. **E. capitulum** n. sp.—Form somewhat robust. Pubescence fine, short, evenly distributed, rather close, pale fulvo-cinereous, color throughout reddish-testaceous or ferruginous; legs and antennae scarcely paler. **Head** small, as wide as long; eyes large, moderately prominent; genae prominent, acutely rounded, much smaller than the eye; posterior margin broadly truncate and sinuate; interocular surface highly polished and impunctate, having two rounded impressed spongy-pubescent foveae on a line with the middle of the eyes, connected by an anteriorly arcuate parabolic impressed channel of nearly equal depth throughout; intermediate surface entire, rather strongly convex; supra-antennal tuberculations elongated, prominent, connecting ridge wide, somewhat prominent and lower in the middle; clypeus strongly rounded anteriorly; antennae short, slender, scarcely more than one-third longer than the head, joints eight to ten equal in length, increasing uniformly in width, the latter twice as wide as long, eleventh much wider than the tenth, very robust, slightly longer than wide, conoidal, obtusely acuminate; last joint of the maxillary palpi robust, not twice as long as wide, scarcely as long as the two preceding joints together; subcapital sensitive setae rather short and sparse. **Prothorax** widest at the middle where it is about as wide as long and much wider than the head; sides thence rather less convergent anteriorly than posteriorly, very strongly arcuate in the former, distinctly sinuate in the latter direction; apex about three-fifths as long as the base and much less than one-half the pronotal width, nearly transverse, base broadly arcuate; disk strongly convex, shining, impunctate, having at one-fourth the length from the base a transverse posteriorly arcuate narrow groove, terminating at the sides in deep circular spongy foveae, and coalescent with the anterior limit of a very deep longitudinally oval medial impressed pit which nearly attains the basal margin and is slightly spongy-pubescent at the bottom. **Elytra** at base slightly wider than the pronotum; sides moderately divergent posteriorly and strongly arcuate; together transversely truncate behind; disk as long as wide, nearly one-half longer than the prothorax, rather strongly convex, shining, impunctate; sutural striae distinct, close, nearly straight, lateral distinct, narrow, terminating at slightly more than one-half the length posteriorly; humeri prominent. **Abdominal** segments distinctly narrower than the elytra; sides parallel; surface very strongly convex, highly polished and impunctate; first three segments decreasing uniformly in length; first dorsal having at the base two very short robust parallel carinae. Legs long and slender; prosternal foveae large, transversely oval. **Metasternum** large, having on each side at its anterior border a transverse strongly pubescent fovea. Length 1.5 mm.

Tallahassee, Florida, 2; Ann Arbor, Michigan, 1.

The description is taken from one of the Tallahassee females, the specimen from Ann Arbor is a male, and the only difference to be observed besides the usual abdominal sexual characters, are the remarkable lunate, strongly swollen middle femora, and the more slender antennal club of the male. The head is if anything slightly smaller in the male than in the female. The metasternal and prosternal foveae are characteristic of the genus.

16. **E. decorus** n. sp.—Form rather slender. Color piceo-rufous; elytra, legs and antennae paler, flavo-ferruginous. Pubescence short, fine, sparse and inconspicuous; integuments shining, those of the elytra distinctly translucent. **Head** large, robust, slightly longer than wide; posterior angles broadly rounded; eyes large, prominent, their own length in advance of the posterior angles; interocular surface raised far above the eyes, flat above, rapidly declivous on all sides, most minutely and sparsely punctulate, having two deeply impressed circular spongy-pubescent foveae on a line with the posterior third of the eyes, and mutually one-half more distant than either from the eye; intermediate surface feebly convex and entire; canaliculations rapidly convergent, very feeble and becoming obsolete anteriorly; supra-antennal tuberculations large, rounded, prominent; intermediate surface slightly depressed; epistoma rather strongly and evenly rounded anteriorly: antennae very short, very slightly longer than the head, second joint more robust than the first, sub-globular, penultimate joints very short, extremely transverse; tenth over four times as wide as long, acute laterally, eleventh very robust, ovoidal, obtusely acuminate, nearly as long as the five preceding joints together, very densely pilose. **Prothorax** widest in the middle where it is slightly wider than the head and nearly one-fourth wider than long; sides thence very strongly convergent anteriorly and posteriorly, slightly more strongly so in the former direction in which they are very strongly arcuate, feebly sinuate in the latter; apex distinctly shorter than the base, feebly and equally arcuate; disk moderately convex, very finely rather feebly and evenly punctulate, having at one-fifth the length from the base a deeply impressed narrow posteriorly cusped groove, cusp-point slightly enlarged as a nude punctiform impression nearly attaining the base, arms nearly straight laterally, terminating at the sides in two circular deeply-impressed spongy-pubescent foveae. **Elytra** nearly quadrate, at base just visibly wider than the pronotum; sides rather feebly divergent posteriorly, strongly and evenly arcuate; together transversely truncate behind; disk moderately convex, finely rather closely and very feebly punctulate, darker at the base and apex; sutural striae fine, approximate and straight, each originating in a puncture near the base just exterior to which there is a second very feeble puncture, and still exterior, nearer the base and distinctly nearer the humeri than the suture there is a much larger punctiform impression which is continued posteriorly by a feeble broadly impressed ill-defined stria, arcuate externally and gradually approaching the suture, becoming obsolete at one-fifth the length from the posterior margin. **Abdo-**

minal segments distinctly narrower than the elytra: sides nearly parallel: surface strongly convex, finely rather closely and evenly punctulate; first two dorsals with two extremely short widely divergent and very widely separated basal carinae. **Legs** long and slender. Length 1.4 mm.

Columbus, Texas, 1.

The fourth joint of the maxillary palpi is large, acuminate and widest near the base. The under surface of the head in the type specimen does not possess the loose pad of sensitive setae, but the setae appear to have been removed by abrasion.

17. **E. arcuatus** Lec.—Bost. Journ. VI, p. 106.—Form very moderately robust: color throughout ferruginous, legs and antennae slightly paler and more flavate: pubescence short, fine, sparse and rather inconspicuous; integuments highly polished. **Head** very slightly wider than long: posterior angles rather pronounced, narrowly rounded; eyes small, prominent: interocular surface impunctate, having two small round spongy-pubescent foreae on a line with the middle of the eyes and mutually twice as distant as either from the eye: intermediate surface entire, strongly convex: canaliculations strongly convergent, feebly impressed, short and joined anteriorly by a broadly arcuate channel behind the transverse epistomal ridge which is moderately prominent: supra-antennal tuberculations elongated, rather conspicuous, each crossed by a narrow channel: labrum three times as wide as long, constricted at base, broadly sinuate anteriorly, angles rounded, bearing six or seven setae along the anterior edge resembling those of *Harpalus*: antennae one-half longer than the head, very sparsely setose toward the base, eleventh joint conical, acuminate, elongated, as long as the four preceding joints together. **Prothorax** widest at the middle where it is as wide as the head and slightly narrower than long: sides thence equally and very strongly convergent anteriorly and posteriorly, very strongly arcuate in the former and feebly sinuate in the latter direction: apex slightly shorter than the base, equally and feebly arcuate: disk strongly and evenly convex, impunctate, having at one-fourth the length from the base a transverse channel in the form of a posteriorly pointed cusp, cusp-point slightly prolonged posteriorly in the form of a nude punctiform impression, arms terminating laterally in rather large nude deeply impressed foveae. **Elytra** at base just visibly wider than the pronotum: sides somewhat strongly divergent, one-third longer than the width at base, strongly and evenly arcuate throughout: together transversely truncate behind: suture scarcely one-third longer than the pronotum: disk rather convex, impunctate: sutural striae arcuate, feeble: basal canaliculations rather strong, disappearing at one-third the length from the base: humeral protuberances rather strong. **Abdominal** segments increasing very slightly in width, first slightly narrower than the contiguous elytra: surface impunctate, convex: border strong: first segment without dorsal carinae. **Legs** long and slender: second joint of the posterior tarsi very slender, greatly elongated, nearly twice as long as the last joint. Length 1.0-1.2 mm.

Georgia, 2; Virginia, 1.

The description is taken from Dr. LeConte's type which is a male. The maxillary palpi are moderately robust, first joint very short and slender, second nearly three times as long, very slender at base and extremely strongly clavate toward tip, third sub-globular slightly narrower than the tip of the second, fourth nearly as long as the first three together, strongly fusiform, finely acuminate at tip and more than twice as long as wide. The pad of sensitive setae on the under surface of the head is rather sparse, and in one specimen, that from Virginia, which I believe belongs to this species, appears to be altogether absent.

The insects of this genus are unusually well provided with sensory apparatus; the spongy-pubescence at the bottom of the frontal and pronotal foveae, the well-developed antennal club and maxillary palpi, and the capitate setae of the inferior surface of the head, are a combination of sense organs apparently rarely equaled in the larger insects of the order.

18. **E. leviceps** n. sp.—Form rather slender. Pubescence short, fine, cinereous, somewhat conspicuous; color throughout dark castaneous, anterior portions of head, oral organs, legs and antennae pale reddish-testaceous. **Head** small, very slightly longer than wide; eyes large, rather prominent; genae obtusely rounded, not as long as the eye; interocular surface very convex, shining, impunctate, having two very small deeply impressed spongy-pubescent foveae scarcely more widely separated than either from the corresponding eye and on a line with the middle points of the latter; intermediate surface strongly and evenly convex; from each fovea extends anteriorly a nearly straight rather deeply impressed canalication, the two being mutually feebly convergent and connected behind the feebly elevated clypeal ridge by a short very feebly impressed anteriorly arcuate channel; supra-antennal tuberculations rounded and prominent; antennae rather slender, one-half longer than the head, club robust, ninth joint as long as and very slightly wider than the eighth, slightly transverse, tenth scarcely longer than the ninth, two-thirds wider, eleventh slightly wider than the tenth, elongated, conoidal and acuminate, nearly as long as the four preceding joints together. **Prothorax** widest at one-third its length from the apex where it is slightly wider than the head and a little wider than long; sides thence very strongly convergent anteriorly, feebly sinuate and feebly convergent posteriorly, evenly and distinctly arcuate; apex two-thirds as long as the base and one-half as long as the greatest pronotal width, both equally and feebly arcuate; disk rather strongly convex, highly polished, most excessively feebly and minutely punctulate; at two-thirds the length from the apex there is a transverse narrow deep and sharply defined furrow connecting a median and two lateral circular spongy-pubescent foveae, the median one rather dilated laterally and connected with the basal edge of the pro-

notum by a narrow strongly elevated carina. **Elytra** at base slightly wider than the pronotum; sides but slightly divergent posteriorly and distinctly arcuate; together transversely truncate behind; disk slightly longer than wide, as long as the head and pronotum together; rather depressed, shining and impunctate; humeri small and prominent; three punctures at the base of each elytron distinct; sutural striae parallel, arcuate, deeply impressed, other striae almost obsolete. **Abdominal** segments but very slightly narrower than the elytra; sides parallel and feebly arcuate; surface polished and impunctate; first dorsal not carinate; under surface of same very finely and feebly punctulate. **Legs** long and slender; prosternal coxal foveae distinct; anterior coxae strongly conical, small; metasternum continued posteriorly by a thin short transverse lamina which is densely fimbriate posteriorly with short yellowish setae; two terminal segments very short and transverse. Length 0.9-1.1 mm.

Washington, District of Columbia, 1; Deer Park, Maryland, 1.

The terminal segment of the male has two parallel arcuate carinae. The above description is taken from the Washington female.

The species may be distinguished from *ruficeps* by its larger size, more robust form especially of the elytra and abdomen, by its nearly piceous-black color, and especially by the shape of the pronotum which is much more transverse, and in which the sides are not parallel but distinctly convergent behind. The head is much shorter and broader than in *ruficeps*.

19. **E. ruficeps** Lec.—Sm. Misc. Coll. 167, p. 28.—Form slender; color of head, prothorax, abdomen, legs and antennae dark piceous-brown, elytra slightly darker, blackish; pubescence sparse, short and fine; surface highly polished. **Head** rather large: front having two small circular pits, equidistant from each other and the posterior limits of the eyes, spongy at the bottom and connected by an impressed furrow which is very strongly arcuate anteriorly; antennae very short and robust, scarcely one-third longer than the head, last joint large, as long as the five preceding joints together, conical, finely acuminate at tip, penultimate nearly three times as wide as long. **Prothorax** equal in width to the head, very slightly wider than long; anterior and posterior margins arcuate, the former most strongly so; anterior and posterior angles obsolete, very broadly rounded; sides parallel and nearly straight; disk impunctate, moderately convex, having in the middle near the base two large circular spongy impressions separated by a distinct longitudinal carina, also at each side just behind the middle an equally large circular spongy impression. **Elytra** at base very slightly wider than the head; sides very feebly divergent, feebly arcuate near the apices, one-fourth longer than the width at base; together transversely truncate behind; suture fully one-half longer than the pronotum; disk impunctate, almost glabrous; sutural striae deep, feebly arcuate and close, each originating in a densely pubescent puncture near the base and very close to the suture; each elytron also has two elongated impressions at the base, the outer ones being much the stronger. **Abdomen** narrower than the elytra; border

strong; surface polished, impunctate; first segment without dorsal carinae. **Legs** slender, translucent; tarsi short, basal half abruptly much more robust than the apical joint; claw minute. Length 0.6–0.8 mm.

New Orleans, 1; Tampa, Florida, 2; Columbus, Texas, 4; Detroit, Michigan, 5.

The parallel sides of the prothorax and very small size will serve to identify this species. The lateral impressions of the pronotum are joined to the middle ones by what appear to be very narrow sharply defined carinae, but these may be grooves, the optical appearance of both being nearly the same.

To this form I have united *E. integer* Lec. (Proc. Am. Phil. Soc. XVII, p. 386) which was described from a unique, and which is precisely similar to the southern forms; the specimen is in much better preservation than the unique type of *ruficeps*, and the pubescence is much more abundant; it appears to be easily rubbed from the surface of the elytra.

THESIUM n. gen.

The principal characters of this genus have been given in the table; the subsidiary and more minute ones can be readily discovered from the descriptions of the two species given below, and which may be distinguished as follows:—

Color reddish-brown; median canalicular puncture of pronotum much elongated.....	1	cavifrons.
Color piceous-black, elytra reddish; median puncture of pronotum very small, near the apex, and very slightly elongated.....	2.	laticolle.

1. **T. cavifrons** (Lec.)—*Eu. car.* Lec. N. Sp. Col. I. 1863, p. 28.—Form robust. Pubescence rather long, evenly distributed, coarse, very pale and somewhat conspicuous; color throughout dark reddish-brown, antennae and legs but very slightly paler. **Head** rather small, broader than long; eyes large, coarsely granulated, moderately prominent, more convex behind; genae very small, nearly transverse, scarcely more than one-half as long as the eyes and continuous in curvature with them; frontal margin not one-half as long as the width across the eyes; interocular surface rather strongly and abruptly elevated above the eyes, feebly convex above, highly polished and impunctate, having at two-fifths the length from the base two very small circular feebly impressed spongy-pubescent foveae, connected by a parabolic channel shorter than the distance between them, and, in their vicinity, very feeble but becoming just behind the frontal ridge very deeply impressed; intermediate surface feebly and nearly evenly convex; supra-antennal tuberculations strong, angulate externally, connected by the short transverse and prominent frontal ridge; labrum prominent, four times as wide as long, nearly transversely truncate anteriorly, sides parallel and very strongly

arcuate, constricted at the immediate base: antennae robust, tenth joint more than twice as long and nearly twice as wide as the ninth which is short and twice as wide as long, eleventh slightly wider than the tenth, slightly longer than wide, conoidal and acuminate: last joint of the maxillary palpi longer than the remaining joints together, robust, conoidal, twice as long as wide, acuminate at tip. **Prothorax** widest slightly before the middle where it is slightly wider than the head and nearly one-third wider than long, and where the sides are parallel and feebly arcuate for nearly one-half the length, thence abruptly and strongly convergent posteriorly and feebly sinuate: edge finely denticulate throughout: apex slightly more than one-half as long as the pronotal width and four-fifths as long as the base: disk broadly convex, polished, and finely and sparsely punctulo-asperate, having near the apex a deep median canaliculate puncture which becomes attenuated posteriorly terminating at the middle of the disk, also at one-third the length from the base a very deeply impressed narrow transverse groove, terminating at the sides in rather small deeply impressed spongy-pubescent foveae, and dilated into a strong posteriorly attenuated impression in the middle: base with a minute impression at each side midway between the middle and the basal angles, and also a small round puncture at each basal angle. **Elytra** at base scarcely wider than the pronotum: sides rather strongly divergent posteriorly, strongly arcuate: disk slightly shorter than wide, broadly convex, polished, scarcely punctulate: sutural striae fine, strong and very close, lateral well-marked, nearly one-half as long as the elytra. **Abdomen** short and broad, nearly as wide as the elytra: sides parallel and nearly straight: border narrow, inclined: surface broadly convex, polished, extremely finely and remotely punctulate: first three dorsal segments equal: basal segments not carinate at base. **Legs** short and slender. Length 0.8 mm.

New Orleans (Motschulsky), 1.

Described from Dr. LeConte's unique type. In the two species of this genus the median carinae of the prosternum and mesosternum are both very narrow and well marked.

It is to be regretted that Dr. LeConte's description of this species is so short and full of error as to be quite useless for any other purpose than the mere attachment of a name. In the three lines constituting the description proper, there are no characters given by which it can be distinguished from most of the other species in this part of the genus. In the few subjoined remarks the author states that it is nearly related to *Eu. difficilis*: this must surely be a slip of the pen as there are scarcely any other two species of the group in question so widely different, either in appearance or structural characters.

2. **T. laticolle** n. sp.—Form robust. Pubescence rather short, coarse, evenly distributed, very pale, scarcely conspicuous: color of body piebous-black: elytra reddish-brown, transverse apical band blackish, legs and

antennae much paler, testaceous; integuments highly polished and impunctate. **Head** small, much wider than long; apical margin one-half as long as the width across the eyes, the latter large, rather prominent and more convex behind; genae very short, strongly convergent posteriorly and slightly more arcuate than the adjoining contour of the eye; interocular surface elevated moderately above the eyes, nearly flat above, having at nearly two-fifths the length from the base two small feebly impressed spongy-pubescent foveae, connected by a parabolic channel which is very strongly dilated and impressed anteriorly, and much shorter than the distance between them; intermediate surface very broadly feebly and evenly convex; supra-antennal tuberculations strong, obtusely angulate exteriorly, connected by the feebly arcuate transverse frontal ridge which is distinctly depressed in the middle; antennae nearly as long as the head and prothorax together, rather slender, club long and strong, ninth joint nearly twice as wide as long, short and small, but slightly longer than the preceding joints, tenth much more than twice as long as the ninth and three-fourths wider, trapezoidal in outline, sides divergent, eleventh scarcely wider than the tenth, as long as wide, very obtuse at tip where it bears a crown of very dense cinereous setae. **Prothorax** more than one-third wider than long and much wider than the head; sides from the apical angles extremely widely divergent and feebly sinuate for a short distance, thence nearly parallel and feebly arcuate to a point slightly behind the middle, thence abruptly very strongly convergent to the basal angles and rather strongly sinuate; edge anteriorly entire, posteriorly minutely and strongly undulate; apex much less than one-half as long as the pronotal width and scarcely two-thirds as long as the base; disk very broadly convex, having at one-sixth the length from the apex a small deeply impressed median puncture which is slightly elongated, and, at one-third the length from the base, a deep broadly dilated posteriorly-angulate naked puncture, connected with the lateral foveae by very narrow distinct but feebly impressed grooves; the lateral foveae are well within the edge of the pronotum, and are very small, exactly circular, spongy-pubescent at bottom and very deeply impressed; basal margin having two lateral punctures and a very feeble median tuberculate elevation. **Elytra** at base equal in width to the pronotum; sides rather strongly divergent posteriorly and strongly arcuate; disk broadly convex, slightly shorter than wide; sutural striae fine, strong, very close and exactly straight, each elytron also has at base three short impressed striae which proceed obliquely from the basal foveae. **Abdomen** very short and broad; third segment as wide as the elytra; sides nearly parallel; border wide and nearly flat; surface broadly convex; basal segments not carinate. **Legs** short and very slender. Under surface of the abdomen paler at tip. Length 1.0 mm.

Columbus, Texas, 4.

This very fine species is readily distinguished from the preceding by its more transverse pronotum, which is also more acutely rounded at the sides, and by its nearly black color, with paler elytra.

FALISCUS n. gen.

The unique species of *Faliscus* was taken in very moderate number by Mr. E. A. Schwarz at Trenton Falls, New York. The description of this form which follows, will at the same time serve to convey a more minute knowledge of its generic characters.

1. **F. bicanalisis** n. sp.—Form robust. Pubescence rather fine, short, evenly distributed, dense, very pale and somewhat conspicuous; color of body throughout rather dark piceous-brown, antennae and legs much paler, piceo-flavate. **Head** rather small, much wider than long; eyes large, prominent, coarsely granulated, evenly convex; genae extremely strongly convergent, very feebly arcuate, scarcely more than one-half as long as the eye, not at all prominent; interocular surface moderately elevated above the eyes, nearly flat above, highly polished and impunctate, having at a little more than one-third the length from the base two small rather deeply impressed circular foveae, mutually nearly twice as distant as either from the eye, and apparently naked, also just behind the anterior angles of the front two oblique narrow feebly impressed and clearly defined grooves, which are very short and almost transverse, not meeting on the median line, but joined posteriorly to the foveae by excessively feeble broadly impressed parallel channels; intermediate surface broader than long, nearly flat; supra-antennal tuberculations rather flat, each crossed by a narrow clearly defined canalication, joined by the strongly arcuate very broadly convex frontal ridge; labrum small, scarcely twice as wide as long, broadly and extremely feebly arcuate anteriorly, rounded at the sides and feebly constricted at base; antennae slender, nearly two-thirds longer than the head, club very long and slender, second joint longer than wide, slightly robust, third narrower, longer than wide, four to six globular, seventh thicker than the sixth, nearly globular, eighth nearly as thick as the seventh, one-third wider than long, ninth one-half longer than the eighth, scarcely one-third wider than long, transversely and very slightly cuneate, tenth scarcely as long as the ninth, one-half wider than long, nearly rectangular in outline, eleventh very slightly wider than the tenth, distinctly longer than wide, oval, slightly acuminate at tip; last joint of maxillary palpi rather long and slender; under surface of head having a large pad of erect sensitive setae. **Prothorax** widest just before the middle where it is about one-sixth wider than long and distinctly wider than the head; sides broadly evenly and strongly arcuate, straight toward the basal angles, very feebly sinuate for a very short distance near the apex; apex much less than one-half as long as the pronotal width and two-thirds as long as the base; lateral edges even; disk broadly convex, shining, very finely and rather sparsely punctulo-asperate, having at one-sixth the length from the posterior margin a small deep longitudinally oval punctiform impression, not spongy-pubescent and produced forward through the basal half of the pronotum as a feebly impressed canalication, which gradually becomes obsolete; lateral foveae wanting, but in their place two longitudinal broadly impressed nearly straight canalicular channels, crossing the edge near the basal and apical angles, not connected

in any manner with the median puncture. **Elytra** at base very slightly wider than the pronotum; sides rather strongly divergent posteriorly and strongly arcuate; disk broadly convex, minutely and rather closely punctulo-asperate, shining, about as long as wide; sutural striae fine, rather close, feebly arcuate, lateral deeply and narrowly impressed, one-third as long as the elytra. **Abdomen** very slightly shorter and narrower than the elytra; sides parallel and straight; border narrow and inclined; surface broadly and rather strongly convex, polished, finely and rather sparsely punctulo-asperate; first three dorsal segments equal; first with two distant very widely divergent short and distinct basal carinae; second without visible carinae. **Legs** long; femora rather robust; tibiae slender. Prosternum very short. Length 1.1 mm.

Trenton Falls, New York, 3.

Described from the male. In the female the eyes are fully developed and the legs are all slender throughout. In the male the middle femora are swollen much more than the anterior and posterior; they are flattened and somewhat lunate, having on the inner narrow edge a very small oblique spine. The corresponding tibiae are very strongly toothed interiorly, the tooth fitting, when the leg is closed, into a concavity in the femur. The remaining femora and tibiae are unarmed. The tendency to enlargement of the middle femur alone, is also to be seen in a rudimentary stage in several males of *Euplectus*.

NICOTHEUS n. gen.

The eyes in the males of this genus are rather well developed, but in the females they are very rudimentary; the genus offers many differences besides those indicated in the table, which are given in the following description of the single species.

1. **N. tibialis** n. sp.—Form moderately robust, somewhat depressed. Pubescence rather short, coarse, dense and conspicuous, pale fulvo-cinereous; color throughout pale rufo-testaceous, legs just visibly paler. **Head** moderate in size, nearly as long as wide; eyes small, very convex and extremely coarsely granulate; genae strongly convergent, feebly arcuate, slightly longer than the eye; interocular surface moderately elevated above the eyes, very feebly convex above, shining, impunctate, having at nearly two-fifths the length from the base two round somewhat feebly impressed spongy-pubescent foveae, mutually two-thirds more distant than either from the eye, connected by an anterior feebly impressed acutely parabolic channel about as long as their distance asunder; intermediate surface rather strongly convex; supra-antennal tuberculations large, angulate externally, having just behind their apical limits a small flat area which is strongly and confluent punctate, connected by the transverse frontal ridge which almost disappears in the middle, and which is much less than one-half as long as the width across the eyes; labrum very transverse, truncate anteriorly;

antennae as long as the head and prothorax together, rather robust, club very prominent, second joint slightly longer than wide, oval, joints three to ten more or less transverse, the first nearly as long as wide, eighth very short, twice as wide as long, ninth much longer, slightly more than twice as wide as long, slightly shorter than the tenth which is also more than twice as wide as long, eleventh much wider than the tenth, nearly globular, finely and abruptly acuminate at tip; maxillary palpi short and very robust, last joint obliquely and inwardly produced at tip as a finely acuminate prolongation. **Prothorax** widest at one-third its length from the apex where it is scarcely wider than the head and about as wide as long; sides broadly rounded, very feebly convergent and straight posteriorly where they are very minutely and obscurely granulate, roundly arcuate anteriorly; apex transverse and straight, slightly more than one-half as long as the pronotal width, and slightly more than two-thirds as long as the base; disk polished and impunctate, rather strongly convex, having in the middle a narrow acutely impressed canaliculation beginning very near the apex and extending posteriorly for more than one-half the total length but scarcely entering the transverse impression, the latter at less than one-fourth the length from the base, is very broadly and strongly impressed, with the surface thence to the basal edge rough and asperate with a narrow but distinct medial carina, and becoming attenuated laterally where it coalesces with the lateral rounded deeply impressed circular spongy-pubescent foveae at more than one-third the length from the base. **Elytra** at base scarcely wider than the pronotum; sides rather strongly divergent posteriorly and strongly arcuate; surface feebly convex; disk shining, sparsely punctulo-asperate, scarcely as long as wide, and about one-fourth longer than the pronotum; sutural striae very fine but distinct, rather distant and arcuate; each elytron has two large basal foveae; lateral striae very broadly impressed, feeble and rather short. **Abdomen** short and broad, nearly as wide as the elytra and rather shorter; sides parallel and feebly arcuate; border rather narrow and inclined; surface broadly and rather feebly convex, shining, very minutely punctulo-asperate; first three dorsal segments equal in length; first two each with two divergent distinct basal carinae, those of the second much shorter than those of the first. **Legs** long and slender; tibiae gradually swollen toward tips. Prosternum very long, carinate throughout its extent. Length 1.3 mm.

District of Columbia, 3; Lee County, Virginia, 1.

The description is taken from the male; the female is quite different in form, the abdomen being much longer and the carinae of the second segment becoming almost obsolete; the basal foveae of the elytra are stronger; the prothorax is slightly longer than wide and the sides are feebly sinuate toward the base; the head is much smaller than in the male. The most marked difference is, however, in the eyes which are in the female very rudimentary, consisting of but three rather large contiguous facets in a triangle on the extreme tips of the lateral angulations of the head. The sexual characters at the posterior portions of the body are, as might be expected, not striking.

EMPLENOTA Casey.

It has been declared by M. Fauvel that the genera *Polystoma* Steph. and *Emplenota* are identical. Through the kindness of M. Aug. Sallé, I have been enabled to submit the following comparisons, the type of *Polystoma* being the species *algarum* Fauv.:—

In *Polystoma* the intercoxal process of the mesosternum is rather wide and the sides for a long distance before the tip are very gradually convergent, so that they are nearly parallel; the tip is squarely truncate. The terminal joint of the maxillary palpi is very thin, much longer than wide, and is affixed obliquely to the fourth. The pronotal epipleuræ are very strongly inflexed and abruptly wider in the middle, rather rapidly narrowing anteriorly and posteriorly, the inferior edge being very strongly arcuate in the middle.

In *Emplenota* the intercoxal process of the mesosternum is in the form of an angle with slightly incurvate sides, or exactly in the form of a long slender cusp, the sides being rapidly and almost evenly convergent to the very apex which is acute and not at all truncate. The terminal joint of the maxillary palpi is very small, as wide as long, not affixed obliquely to the fourth of which it is properly but a minute terminal process. The pronotal epipleuræ are less strongly inflexed and much more nearly uniform in width throughout.

If the American species of *Aleochara* are typical representatives of that genus, both the above should, in the opinion of the writer, be considered as distinct genera.

QUEDIUS Steph.

Q. silvicola n. sp.—Form rather robust, somewhat depressed. Head and elytra piceous-black, prothorax very dark piceous, abdomen very slightly paler, piceous; integuments of the latter somewhat opalescent. Head moderate, oval, feebly constricted at base, nearly one-third longer than wide; interocular surface broadly convex, without median punctures, highly polished, extremely minutely and transversely strigose, strigæ wavy; having a small setigerous puncture on the extreme frontal edge near the anterior angles of the epistoma, within and near the bases of the antennæ, also on each side a small puncture above and near the base of the antenna, another near the upper border of the eye at its anterior third, also three others not in a straight line on the occiput above and far behind the eye, another directly behind the middle of the eye and two-thirds the length of the latter from it, and finally two large and several very small scattered punctures directly below the eye and along the border of the strongly elevated sub-lateral carina; labrum strongly transverse, very deeply and strongly bilobed; maxillary palpi very long and slender, last joint thin, nearly one-third longer than the third; antennæ rufous at base fuscous toward tip, slightly more than one-third longer than the head, basal joint as long as the next two together, second about two-thirds as long as the third and as long as the

fourth, joints four to ten very slightly increasing in width, the former slightly longer than wide, the latter about as wide as long, eleventh moderate, slightly elongate, and obliquely acuminate at tip. **Prothorax** scarcely wider than long, but very slightly longer than the head; apex transverse and nearly straight; base from the middle of the sides almost semicircularly rounded, sides rather feebly convergent thence to the apical angles which are slightly obtuse and slightly rounded; disk moderately convex, highly polished, excessively finely strigose, having on each side three small discal punctures in the apical half and not in a straight line, also three near the apical margin laterally, and one isolated about twice as far from the apex as from the lateral edge and rather near the latter, also about seven minute lateral marginal punctures, one slightly larger and more distant from the edge near the isolated one, and three basal, two of which last form a lateral pair: the entire disk is extremely finely margined along the sides and base. **Scutellum** highly polished, not punctate. **Elytra** slightly narrower than the pronotum: sides parallel and almost straight; conjointly from the base of the pronotum very slightly wider than long; disk feebly convex, broadly, somewhat angularly and rather strongly emarginate behind, shorter than the pronotum, highly polished but minutely undulated, finely sparsely and very evenly punctate, each puncture bearing a rather long coarse pale seta. **Abdomen** at base about as wide as the elytra: sides rather convergent behind and nearly straight; surface moderately convex, sparsely and coarsely pubescent, sparsely evenly and finely punctate, excessively finely but strongly and transversely strigose: under surface almost identically the same as the upper. **Legs** moderate, clear rufo-testaceous: posterior tibiae rather coarsely and sparsely pubescent, and on all sides finely and very sparsely spinulose: tarsi hairy above: first four joints of the posterior decreasing very uniformly and rather gradually in length, slender: anterior tarsi rather strongly dilated. Length 8.0 mm.

Fairmount Park, Philadelphia, 1.

The type above described is probably a female; the sixth segment of the abdomen is broadly truncate and arcuate behind. The strigae of the abdomen are finer but more strongly marked than those of the anterior portions of the body, and form a beautiful and striking character. I do not find any description which will satisfy the type, and should place it immediately after *peregrinus* in Dr. Horn's tabular arrangement of the genus. The eyes are slightly oblique, large and very regularly elliptical; the punctures of the abdomen and elytra are about equally sparse, those of the latter being much finer.

The strigae are entirely invisible with a hand lens of about one-half inch focal length. The species although having an elongate head is distinguishable at once from *peregrinus* by its more robust form, and much larger eyes which are regularly oval anteriorly and not truncate as in the latter.

BELONUCHIUS Nord.

B. moquinius n. sp.—Form rather slender, depressed. Head and prothorax black, mandibles fuscous toward tips; antennae dark fuscous, piceous-black at base; elytra and abdomen rufous, last two segments above and beneath black; pubescence of elytra and abdomen sparse, rather fine, pale, not conspicuous, that of the head and prothorax in the form of very sparse coarse erect setae. **Head** small, slightly longer than wide; eyes elongate, oval, not at all prominent, at more than their own length from the base; sides behind them feebly convergent and nearly straight, then strongly and broadly rounded behind to the neck: interocular surface feebly convex, shining, extremely minutely strigato-rugulose, having two setigerous punctures near the middle on a line through the middle of the eyes, and two or three just above each eye, also a very feebly impressed median canal-culation becoming stronger toward the labrum; the latter very short and broad, strongly bilobed, each lobe broadly rounded anteriorly and bearing two very long and several small setae; epistoma broadly and feebly sinuate anteriorly; mandibles long and prominent, nearly straight externally toward base, arcuate at the apex; antennae two-thirds longer than the width of head, outer joints gradually and somewhat feebly incrassate and covered very densely with extremely short fulvous pubescence and coarse sparse erect setae, basal joint slender, four-fifths longer than the second which is more than twice as long as wide, second and third equal, strongly clavate, fourth very short, very slightly longer than wide, tenth scarcely longer than the fourth, about one-third wider than long, eleventh obliquely produced at tip; maxillary palpi very slender, piceous-black toward base, pale reddish-testaceous toward tip, fourth joint very slender, one-half longer than the third; under surface polished, excessively sparsely and minutely punctulate. **Prothorax** scarcely narrower than the head, just visibly longer than wide; sides nearly parallel, feebly arcuate; base and basal angles broadly evenly and continuously rounded; apical angles inflexed, rounded; apex broadly and feebly arcuate; disk moderately convex, polished, with two straight medial rows of five punctures not attaining the base, and, on each side, an exterior very irregular row of three or four punctures, also three or four along the edge at each basal angle. **Elytra** at base distinctly wider than the pronotum; sides slightly divergent posteriorly and feebly arcuate; together broadly angularly and distinctly emarginate behind; disk slightly wider than long, shining, rather finely evenly and sparsely punctate. **Abdomen** diminishing but very slightly in width posteriorly; border strongly inclined, rather thin and very strong; surface feebly and sparsely punctate; under surface more strongly so, especially along the bases of the basal segments where the punctures are abruptly large, deeply impressed and close. **Legs** rather long; anterior coxae extremely large, extremely highly polished, glabrous except near the tips, almost as long as the femora; the latter are slender and armed along the inner edge with a short row of erect stout black spines just beyond the middle; corresponding tibiae slender, armed at tip with two strong very nearly equal spines and many shorter and more slender spinules; corresponding tarsi not dilated; first joint of the posterior tarsi

much shorter than the last; middle coxae widely separated by the mesosternum which has between them a broadly lunate area abruptly declivous along its posterior arcuate edge and feebly produced in the middle, bearing on its face a transverse arcuate row of setae.

Male.—Sixth ventral segment broadly and feebly sinuate at tip, sinus feeble, evenly rounded, about ten times as wide as deep.

Female.—Prothorax slightly wider than the head; sixth ventral segment very broadly and evenly rounded behind.

Length 7.5–8.0 mm.

Arizona (Morrison), 2.

The description is drawn from the male; the species bears a great resemblance to *Philonthus* or *Actobius*, but appears to me to belong to *Belonchus* on account of the spines along the inner edge of the anterior femora.

XANTHOLINUS Serv.

X. fucosus n. sp.—Form very slender; pubescence pale, short, very sparse, erect and setiform; head black above and beneath, oral organs and antennae dark rufous; pronotum pale reddish-testaceous; elytra very dark testaceo-piceous; abdomen above darker than the elytra, very dark piceous-brown, beneath slightly paler. **Head** very long and narrow, one-half longer than wide, sides nearly parallel, very feebly swollen behind the eyes; basal angles rather narrowly rounded; base transverse; eyes very small, circular, not prominent, nearly touching the base of the mandibles, nearly three times their length from the basal angles; interocular surface strongly and cylindrically convex, polished, broadly impunctate along the middle, and narrowly impunctate in a slightly oblique line from the eyes to the basal angles on the sides, elsewhere above coarsely and rather loosely punctate, punctures strongly elongate; beneath more finely and remotely punctate, punctures nearly round; fourth joint of the maxillary palpi much longer than the third, third finely acuminate, swollen slightly toward base; antennae scarcely longer than the head, basal joint distinctly longer than the next four together, more than four times as long as wide, rather strongly arcuate downward, second slightly longer than wide and slightly narrower than the first, third and fourth sub-globular, slightly narrower than the second, joints five to ten increasing in width, nearly equal in length, the former very slightly wider than long, the latter nearly twice as wide as long, eleventh as wide as the tenth, slightly longer than wide, very obtusely conoidal, joints one to three glabrous, coarsely and sparsely setose, remainder very finely and densely pubescent, pubescence very short; neck narrow, swollen. **Prothorax** about equal in width to the head, shorter than the same, about one-third longer than wide; sides very feebly convergent posteriorly and very feebly arcuate from above, sinuate laterally; apex slightly longer than the base, broadly triangular; apex truncate at the junction of the neck, base broadly arcuate; basal angles rather broadly rounded, apical less broadly so; disk polished, having a very irregular line of six punctures exclusive of the minute basal one, and a lateral discal row of four near the middle; very

strongly convex and very strongly declivous toward the apical angles. **Elytra** at base scarcely as wide as the pronotum: sides rather feebly divergent and almost straight: disk rather depressed, one-fourth longer than wide and very slightly longer than the pronotum, polished, very finely feebly and sparsely punctate, punctures aggregated near the suture, and having a distinctly linear arrangement near the flanks, middle portions impunctate. **Abdomen** at base very slightly narrower than the elytra: sides nearly parallel and very slightly arcuate; border narrow and nearly vertical; surface sub-cylindrically convex, polished, just visibly reticulate, sparsely very minutely and evenly punctulate. **Legs** rather slender, dark rufous; anterior tarsi but very slightly swollen. Length 3.9 mm.

Cape May, New Jersey, 1.

The frontal grooves are long and well developed; the under surface of the head is coarsely rather feebly and obliquely strigose; the integument of the pronotum is so thin and transparent that the complicated system of muscular attachments can be most clearly studied through it. I am at a loss to place this species in Dr. LeConte's table, but there is a probability of its coming naturally after *emmesus*; it is the smallest of the genus which has been described from the United States, being somewhat shorter than *nanus* Lec.

There is a form mentioned by Dr. LeConte (Trans. Am. Ent. Soc. 1880, p. 173), which is *fusciceps* (Fauvel i. litt.), and which he refers to *emmesus* as a smaller and more slender race. I do not think the present species can be the one referred to as *fusciceps*, as I cannot conceive of the association of *emmesus* and *fucosus* in any way; they differ in almost every character, and the merest glance will serve to distinguish them; one point deserves special notice besides the very much more flattened form of *emmesus*, it is that the gular sutures meet at one-fourth the length of the post-mental portion of the head from the posterior margin of the same in the latter, while in *fucosus* they meet before the middle of this area; the surface in question is strongly and closely punctate and perfectly smooth in *emmesus*, and is strigose, and rather feebly and very sparsely punctate in *fucosus*.

CRYPTOBIUM Mann.

C. capito n. sp.—Form robust, rather depressed. Color throughout dark brownish-red; head slightly more castaneous and blackish anteriorly; integuments somewhat translucent; legs much paler and more flavate; antennae dark rufo-testaceous, palpi much paler; pubescence sparse, coarse and setiform on the head and pronotum, more abundant at the sides, more dense finer and evenly distributed on the elytra, very dense long fine and conspicuous on the abdomen, plumbeous in color. **Head** large and con-

spicuous, much longer than wide; sides behind the eyes parallel and very strongly arcuate; at a distance behind the eyes equal to the length of the latter it is distinctly widest; sides convergent slightly toward the neck which is almost as broad as the pronotum; eyes rather small, slightly prominent, in great part visible from above, oval, evenly rounded anteriorly; interocular surface depressed, flat anteriorly, highly polished, coarsely evenly and rather densely punctate; punctures round, sub-variolate, almost as wide as the interspaces; between the antennae there is a large area having only a very few widely scattered punctures, with very feeble punctulations in the interspaces; antennae very long and slender, one-third longer than the head, basal joint very long, slender, slightly enlarged toward tip, feebly sigmoid and longer than the next four together, second shorter than the third, as long as the fourth, joints eight to eleven decreasing slightly in length and increasing in width, the former about three-fourths longer than wide, strongly narrowed toward base, the latter oval, one-third longer than wide; maxillary palpi long, second joint slender, longer than the third, strongly arcuate, third conical, rather slender, narrowed toward base, fourth conical, nearly as broad at base as the tip of the third, acute at tip, two-fifths as long as the third; labial palpi very small and slender, last joint fine and acicular; under surface finely and confusedly rugulose, finely rather sparsely and feebly punctulate, slightly swollen along the gular sutures; mandibles very long, tapering and acute. **Prothorax** distinctly shorter than the head, narrowed scarcely perceptibly from apex to base; sides evenly and moderately arcuate; apical angles narrowly rounded, basal rather broadly so; apex and base nearly transversely truncate, extremely narrowly margined; disk five-sixths as wide as the head, scarcely one-fifth longer than wide, moderately convex, highly polished, finely feebly sparsely and irregularly punctate, more serially so near the broad median impunctate area. **Elytra** at base as wide as the pronotum, slightly wider than the base of the latter; sides feebly divergent posteriorly and nearly straight; together broadly roundly and strongly emarginate behind; disk nearly flat, shining, slightly longer than wide and very slightly longer than the pronotum, coarsely strongly evenly and densely punctate. **Abdomen** at base as wide as the contiguous elytra; sides moderately arcuate; border extremely strong, nearly erect at base, rapidly becoming almost obsolete at the apex of the fifth segment; surface feebly convex, very moderately shining, finely evenly and rather densely punctate, transversely very minutely and rather strongly strigate. **Legs** slender; femora long and slender, strongly compressed, narrow; first joint of the posterior tarsi as long as the next two together. Prosternum very strongly and acutely carinate posteriorly. Under surface much paler than the upper.

Mab..—Fifth ventral segment broadly and extremely feebly emarginate behind; sixth deeply incised at apex, incisure as deep as wide, sides sinuate and arcuate just before the anterior angle which is very acutely rounded, apical angles slightly rounded.

Emab..—Unknown.

Length 9.0 mm.

Jenkintown, near Philadelphia, 1.

This very fine species should evidently be placed immediately after *tumidum* in Dr. LeConte's table of the genus *Cryptobium*. The very large elongated head, distinctly widest behind the eyes, very long slender antennae and pale color, separate it from other forms in this neighborhood.

C. convergens n. sp.—Form rather slender, rather feebly convex; sides parallel; head and prothorax piceous-black; elytra dark rufo-piceous; abdomen nearly piceous-black, slightly paler and more rufous toward tip; pubescence rather long, coarse, erect and bristling over the entire body, somewhat abundant and nearly evenly distributed, pale fulvous. **Head** moderate in size, much longer than wide; eyes rather small but convex and prominent; sides continuous in outline with them behind, distinctly convergent toward the neck which is not two-thirds as wide as the width at the eyes, nearly straight toward the eyes, more arcuate behind; just in advance of the eyes the head is scarcely three-fourths as wide as across the latter, forming a short very transverse epistoma the sides of which to the antennae are feebly convergent and straight, transversely truncate anteriorly; supra-antennal tuberculations very strong and conspicuous, front between them sparsely and irregularly punctate, shining, minutely granulose; occiput coarsely and evenly punctate, moderately convex, polished, minutely and feebly strigato-reticulate; punctures round, separated by less than twice their widths in the middle, becoming much more dense finer and very confused behind the eyes where there is on each side two large areolate punctures bearing long erect setae; between them extending longitudinally from the eye there is a broadly rounded feeble ridge; under surface minutely reticulated, rather finely sparsely and evenly punctate, not elevated along the gular suture; maxillary palpi rather long and slender, second joint slender, slightly flattened and feebly bent, equal in length to the third which is slender, conical, feebly narrowed toward base, truncate at tip, nearly four times as long as wide, fourth joint very small, subulate, conical, much narrower than the apex of the third and received partially within it, but slightly more than one-fourth as long as the latter; antennae rather slender, very feebly incrassate, longer than the head, very dark rufous, basal joint feebly sigmoid, scarcely longer than the next three together, second much shorter than the third and very slightly longer than the fourth, the latter scarcely more than two-thirds as long as the third, first two joints glabrous and sparsely setose, the remainder very finely pubescent throughout and sparsely setose. **Prothorax** very small, scarcely more than three-fourths as long or wide as the head; sides parallel and feebly arcuate; apical angles acutely rounded, basal rather strongly and evenly so; base broadly and very feebly arcuate; apex broadly sinuate; disk broadly convex, about one-fourth longer than wide, rather coarsely closely and unevenly punctate; broad median line impunctate, punctures more sparse toward the base. **Elytra** at base distinctly wider than the pronotum, slightly narrower than the head; sides parallel and nearly straight; together broadly roundly and moderately sinuate behind; apical angles evenly rounded; disk very broadly and feebly convex, distinctly longer than the pronotum, more than one-fourth

longer than wide, shining, moderately coarsely very evenly and rather densely punctate; punctures round, impressed, generally distant by twice their widths. **Abdomen** at base just visibly narrower than the contiguous elytra; sides parallel and very feebly arcuate on the first four segments; border nearly equal throughout the same segments, very strong, moderately deep; surface feebly convex, finely very strongly evenly and rather sparsely punctato-asperate and transversely finely and strongly strigate, shining; setae at the sides and tip very long, strong and bristling. **Legs** long and slender; femora very slender, pale flavate, remainder pale rufo-testaceous, first joint of the posterior tarsi much shorter than the next two together, first four decreasing uniformly in length. **Body** not paler beneath. **Prosternum** obtusely angulate behind, angle not at all rounded and very strongly elevated, elevated portion narrowly and feebly carinate.

Male.—Unknown.

Female.—Second and third ventral segments each with a very short transverse posteriorly arcuate eroded fold in the middle of the disk, about one-sixth as long as the width of the segments, and bearing a very dense line of erect stiff setae; sixth segment very broadly rounded behind, transverse in the middle.

Length 8.0 mm.

Near Camden, New Jersey, 1.

Under the supposition that the narrowing of the head behind the eyes is not a constant character, which however I have no reason to suspect, the above species would fall naturally immediately after *despectum* in the table referred to above; if, however, we consider this as a rigid and constant character, it can find no place under any of the subdivisions proposed there, as, with *cribratum* and *serpentinum* it appears to possess very few characters in common, except the one indicated.

The type specimen was taken on the sandy shores of the Delaware River about six miles from Philadelphia.

C. parallelum n. sp.—Form slender, depressed; sides parallel. Color throughout pale reddish-brown, not paler beneath; femora much paler, flavate; antennae testaceous, basal joint slightly more flavate and the tip more fulvous and paler from an excessively fine short and dense pubescence; head and prothorax less opaque and more purely rufous than the remainder; sparsely and coarsely pubescent, elytra and abdomen more densely and conspicuously so. **Head** two-thirds longer than wide; sides parallel behind the eyes and almost straight posteriorly, broadly rounded to the neck which is three-fifths as wide as the head; eyes rather small, very slightly convex; epistomal regions before them two-thirds as wide as the head, sides parallel and straight, truncate anteriorly, angles rounded; antennal tuberculations broad and very prominent; surface between them feebly declivous and slightly more strongly impressed near them, slightly more sparsely and finely punctate; interocular surface and occiput rather coarsely strongly

evenly and sparsely punctate; punctures circular, sub-variolate, strong, generally separated by about three times their widths in the middle, slightly closer toward the sides where the surface becomes slightly rugulose: immediately behind the eye in a line parallel with its rather truncate and oblique hind margin, and at a distance from it more than equal to its length, there are two large round crater-like setigerous punctures, very distinct from the mass of punctures about them; under surface rugulose, shining, sparsely and finely punctate; maxillary palpi long, all the joints slightly flattened, second scarcely as long as the third, arcuate, gradually widening toward tip which is obliquely truncate, third conical, gradually narrowed toward base, truncate at tip, three times as long as wide, fourth very small, flattened, conical, oblique, two-thirds as wide at base as the tip of the third and nearly as wide as long, not one-fourth as long as the third joint; inner tooth of mandibles very long, arcuate, strong; antennae much longer than the head, slender, basal joint much the most robust, as long as the next three together, second two-thirds as long as the third, as long as the fourth, joints four to eight increasing slightly in length, eight to ten decreasing rapidly in length, eleventh very slightly longer than the tenth. **Prothorax** two-thirds as long and nearly five-sixths as wide as the head; sides feebly convergent from apex to base and feebly arcuate; apex broadly and very feebly emarginate; angles slightly acute and very slightly rounded; base transverse, angles broadly rounded; disk polished, one-sixth longer than wide, rather coarsely closely and irregularly punctate, more irregularly and sparsely so laterally; median impunctate area even. **Elytra** very long, one-third longer than the pronotum, about as wide as the head; sides nearly parallel, very feebly arcuate near the middle; together broadly roundly and rather strongly sinuate behind; angles broadly rounded; disk nearly one-third longer than wide, depressed, extremely highly polished, coarsely evenly and densely punctate, interspaces one and one-half times as wide as the punctures, convex. **Abdomen** very slightly narrower than the elytra; sides parallel and straight; border very strong, deep, strongly inclined, equal throughout the first four segments; surface finely rather sparsely and evenly punctate, also coarsely and distinctly strigato-reticulate, shining; under surface like the upper, bristling with long erect black setae toward the tip. **Legs** long and slender; first joint of the posterior tarsi one-third longer than the second, slightly shorter than the last; femora much paler than the tibiae and tarsi. Gular support of the mentum and scutellum each having two small setigerous punctures in the middle of the disk and transversely disposed.

Female.—Second ventral segment having just behind the middle a short transverse and feeble fold, one-sixth as long as the width of the segment, straight and densely fimbriate with slender black setae; third segment having just before the middle a short transverse and very feeble fold similar to the first, except that it is not one-half as long; sixth segment very broadly rounded behind.

Length 9.5 mm.

Pennsylvania, near Philadelphia, 1.

The two areolate punctures behind the eyes appear to characterize the genus or a large portion of it. I do not see any group made by

Dr. LeConte in his table which can receive this species, on account of the structure of the fourth joint of the maxillary palpi; it can, however, for the present be placed after *lugubre*.

C. proximum n. sp.—Form moderately slender, depressed. Color throughout rather dark brownish-red; head very slightly darker, castaneous; femora paler, yellowish-testaceous; pubescence of head and pronotum very coarse, setiform, sparse, erect, that of elytra and abdomen slightly more dense, finer, erect, fulvous. **Head** much longer than wide; sides behind the eyes parallel and very slightly arcuate, broadly rounded behind; base broadly and very feebly emarginate; eyes small, truncate behind, slightly prominent; width across the eyes scarcely as great as at their own length behind them; epistomal region adjoining them anteriorly about two-thirds as wide as the head, sides parallel and straight, broadly truncate and very feebly sinuate anteriorly, angles rounded; antennal tuberculations strongly marked, intermediate surface feebly declivous, slightly more strongly impressed near them and slightly more sparsely punctate than the occiput; the latter broadly convex, polished, coarsely deeply evenly sparsely and sub-variately punctate, punctures round, separated in the middle by about two and one-half times their own widths, at the sides smaller and slightly closer; large punctures at one and one-half times the length of the eye behind the latter, the upper one the larger and elongated; under surface finely and sparsely punctate, polished, finely rugulose; maxillary palpi long, second joint very feebly arcuate, distinctly shorter than the third which is conical, rather abruptly narrowed near the base, about two and one-half times as long as wide, fourth flattened, oblique, conical, very slightly longer than wide at base, two-thirds as wide as the third and one-fourth as long, color pale; mandibles nearly black; antennae much longer than the head, slender, pubescence toward tip rather coarse, very close and dense, bright fulvous, basal joint as long as the next three together, second nearly three-fourths as long as the third, equal to the fourth, joints four to eight increasing very slightly in length, the latter conical, twice as long as wide, ninth longer than the tenth, equal to the last, the latter very slightly longer than wide. **Prothorax** much shorter and but slightly narrower than the head; sides about parallel, rather strongly arcuate; apex slightly longer than the base, broadly and very feebly arcuate, angles obtuse, narrowly rounded, base transverse in the middle, angles rather broadly rounded; disk extremely highly polished, scarcely one-sixth longer than wide, broadly convex, coarsely and rather densely punctate, punctures roundly impressed, without trace of serial arrangement; broad median area, and on each side a narrower oblique line beginning near the apical angles and continuing to the base, impunctate; two setigerous punctures of scutellum very widely separated. **Elytra** at base as wide as the head; sides parallel and very feebly arcuate; together broadly and rather strongly sinuate behind; apical angles rounded; disk nearly one-third longer than the pronotum, depressed, flat, rather coarsely evenly and very closely punctate, very highly polished. **Abdomen** about as wide as the elytra; sides parallel and straight; border very strong on the first four segments, slightly stronger toward base; surface polished,

minutely strigato-reticulate, finely evenly and rather closely punctate, more sparsely so toward tip. **Legs** long and slender; first joint of the posterior tarsi nearly one-half longer than the second, very much shorter than the last. Prosternum very strongly and acutely carinate between the coxae.

Female.—Second ventral segment with a transverse feebly spongy fold just behind the middle, nearly straight and one-sixth as long as the segmental width, densely fimbriate with fine black setae; third segment having just before the middle a similar fold, or more properly, narrow eroded and blackish-granulose area, which is slightly shorter than that of the second segment; sixth segment truncate at tip, truncation extremely feebly sinuate in the middle, angles rounded.

Length 10.0 mm.

Willetts Point, Long Island, 2.

Each dorsal segment bears near the apex and just within the border a long stiff erect black seta. This species should probably follow the preceding in the catalogue; it is distinguishable from it by its sexual characters, and the more slender form, paler color and more parallel and straight sides of the head in *parallelum*. Between the eyes there is a narrow transverse area which is almost free from punctures.

The species of *Cryptobium* must be extremely numerous in the New World; as far as my own experience will allow me to judge they are never gregarious and always found singly, and are comparatively seldom taken. Of the five species in my own collection one has been described and four are now described for the first time, if the characters given by Dr. LeConte are constant and accurate. Another specimen from Willetts Point, which has been unfortunately destroyed, evidently represented a species excessively closely allied to *proximum*, in which the fold of the second segment was similar, but which was entirely devoid of any modification of the third segment. The specimen was so very similar to the type of *proximum*, only differing in the slightly greater convergence of the sides of the pronotum toward the base, that I am almost inclined to doubt the invariability of the sexual characters.

LATHIROBIUM Grav.

L. tricolor n. sp.—Form somewhat slender, rather strongly depressed. Pubescence of head prothorax and elytra in the form of very coarse erect sparse setae, of a very dark piceous color, that of abdomen very fine, long, recumbent, and extremely dense and even, very pale grayish-brown. **Head** small, from base of antennae about as long as wide; eyes rather large, slightly oblique and slightly prominent, one-half their length from the bases of the antennae; sides behind them parallel and feebly arcuate; posterior angles rather acutely rounded; base truncate, feebly sinuate in the middle;

apex between the antennae straight, one-half as long as the width of head; interocular surface broadly and evenly convex, polished, coarsely irregularly and somewhat sparsely punctate, punctures round, deeply impressed and varying greatly in size, very slightly less dense in the middle; labrum more than twice as wide as long, very deeply and broadly bilobed; third joint of the maxillary palpi but slightly longer than the second, very robust, conical, squarely truncate at tip which is circular in outline and very deeply excavated, the fourth joint very thin and acicular, oblique, and attached at the bottom of the deep concavity; under surface of head very minutely sparsely and feebly punctulate, surface minutely rugulose; antennae as long as the head and prothorax together, not thickened toward tip, first joint scarcely as long as the next two together, second just visibly shorter than the third and equal in length to the fourth, the latter slightly thicker, joints four to ten decreasing very slightly in length, equal in thickness, the latter distinctly longer than wide, last joint slightly elongate, constricted toward tip. **Prothorax** widest at the middle where it is very slightly wider than the head and nearly one-sixth narrower than long; sides parallel throughout, feebly and evenly arcuate; apex slightly longer than the base, the former broadly and feebly arcuate, the latter transverse; apical angles rather acutely rounded, basal broadly rounded; disk broadly and rather feebly convex, polished, having two medial rows of close rather coarse and irregularly disposed punctures, intermediate space impunctate, between them and the sides the punctures are rather fine, sparse, unevenly disposed and irregular in size. **Elytra** at base slightly wider than the pronotum; sides very feebly divergent posteriorly and very feebly arcuate; together very broadly feebly and triangularly emarginate behind; disk broadly depressed, very feebly and evenly convex, about one-fourth longer than the pronotum, and about one-fourth longer than wide, punctures rather coarse toward the suture where they are arranged in irregular rows, finer toward the sides where they are confused and more sparsely distributed, very feebly impressed throughout. **Abdomen** about as wide as the elytra; sides parallel and nearly straight; border strongly inclined. **Legs** moderate.

Male.—Sixth ventral segment sinuate at tip, sinus slightly wider than deep, evenly rounded at the bottom and scarcely more than one-half as wide as the apices; the contiguous surface feebly and cylindrically impressed. First four joints of the anterior tarsus very broadly dilated, and extremely densely pubescent beneath; fifth joint slender and nearly as long as the first four together.

Female.—Unknown.

Length 4.5–5.0 mm.

Cape May, New Jersey, 2.

The colors in this fine species are as follows:—

Head above and neck deep black, beneath piceous-black, paler toward the median line; labrum, oral organs, antennae and legs throughout pale flavo-testaceous; prothorax pale reddish-testaceous; elytra black, having a narrow suffused band at the base and a narrow edging along the suture reddish-testaceous; abdomen pale yellowish-

brown from the pubescence, bases of the segments reddish from the transmitted light; under surface of abdomen of the same color as the upper, bristling with long dense coarse erect setae toward tip. In the second specimen the elytral punctures are arranged in tolerably well-defined rows nearly throughout the elytra.

Following the characters of Dr. LeConte's table of this genus as carefully as possible, it appears to come immediately after his *ambiguum*.

L. inops n. sp.—Form very slender, sub-depressed; color of body dark reddish-testaceous, abdomen slightly darker, legs slightly paler and more flavate, antennae slightly more flavate toward tip; pubescence long, very sparse and fine, recumbent, not conspicuous, scarcely thicker on the abdomen. **Head** large, distinctly longer than wide, widest at one-fourth the length from the base; eyes very small, not at all prominent, at more than their own length from the angles of the epistoma, and at three times their length from the basal angles; sides behind them just visibly divergent posteriorly and rather feebly arcuate; basal angles broadly rounded; base transversely truncate; interocular surface broadly and evenly convex, shining, rather finely evenly and somewhat sparsely punctate, with a narrow line almost impunctate along the middle; supra-antennal angulations rounded exteriorly, rather distinctly swollen, each with a small setigerous puncture; anterior edge of the epistoma broadly truncate and distinctly sinuate in the middle, three-fifths as long as the greatest capital width; antennae three-fourths as long as the head and prothorax together, very robust throughout, not appreciably thickened toward tip, first joint nearly as long as the next two together, strongly narrowed toward base, scarcely twice as long as wide, second slightly narrower, slightly elongated, very little shorter than the third and longer than the fourth, joints four to ten about as long as wide, eleventh small, acutely conoidal; second joint of maxillary palpi slightly bent; neck short and broad. **Prothorax** slightly narrower than the head, slightly more than one-third longer than wide; sides nearly parallel and almost straight in the middle; anterior and posterior angles broadly rounded toward the sides, more acutely rounded next the anterior and posterior margins, the former broadly arcuate, the latter very slightly shorter, transverse and feebly sinuate in the middle; disk rather depressed, polished, rather broadly impunctate along the middle; punctures rather small, aggregated densely in a broad irregular line at the borders of the impunctured area, then more sparse, and again more dense near the edges where they appear to tend to an irregular linear formation. **Elytra** at base scarcely as wide as the pronotum; sides rather strongly divergent posteriorly and extremely feebly arcuate, nearly straight; together broadly triangularly and rather strongly emarginate behind; exterior apical angles broadly rounded behind; disk very feebly convex, narrowly and rather strongly impressed along the suture, distinctly shorter than the pronotum, and slightly longer than the apical width, highly polished, and extremely feebly irregularly and somewhat sparsely punctate. **Abdomen** at base slightly narrower than the con-

tiguous elytra; sides straight and extremely feebly divergent posteriorly; border nearly erect, thin; surface rather feebly arcuate, shining, excessively finely and feebly punctulate. Anterior femora dilated, toothed beneath; anterior tibiae dilated toward tip and channeled; second joint of posterior tarsi distinctly longer than the first, equal in length to the third.

Male.—Fifth ventral segment very feebly and evenly emarginate in its middle third at apex, contiguous surface broadly and feebly impressed; sixth segment emarginate at tip, emargination two-thirds wider than deep, sides feebly convergent and straight near the angles, and broadly and arcuately rounded at bottom, contiguous surface feebly impressed anteriorly, sides in the form of low broadly rounded ridges which terminate at the angles of the emargination in rather well marked short slightly obtuse teeth; seventh segment widely divided.

Female.—Sixth segment elongate, abruptly truncate at the immediate apex, truncation short and very feebly sinuate in the middle. Abdomen broader; elytra shorter, sides much less divergent; more closely punctate throughout; smaller in size.

Length 5.0–6.0 mm.

Lake Superior, 2.

The above species appears to belong immediately after *pedale* in Dr. LeConte's table, and is described from two specimens which I received from Dr. LeConte in a heterogeneous mixture of refuse material in great part unlabeled, and which Dr. LeConte thought came from the Lake Superior region. As some of the specimens had Panama, S. Amer. labels, and others unlabeled I have since found also came from that region, it may be possible that the species is in reality a native of Panama.

It is evidently undescribed from North America, and is of such an interesting type that I have taken pains to describe it at length.

ORUS n. gen.

Attention is called at this opportunity to a very serious error which has entered our tables of genera, by which the antennae in all the species occurring in North America and hitherto associated with *Scopaus*, are termed straight. In our minute very slender species the antennae are very strongly geniculate, but in *opacus* (Lee.) they are straight. There are many reasons, however, for believing that *opacus* does not belong to the same genus as our small species of *Scopaus*, and as it satisfies Lacordaire's description of *Scopaus*, it is undoubtedly correctly placed; for the minute forms *erignus*, *picipes* and *punctatus*, I have created a new genus on account of the very different structure of the maxillary palpi and form of the pronotum, in addition to the geniculate antennae. In the species of *Stilicis* also which I have

examined from the United States, the antennae are rather strongly geniculate and not straight as stated in the "Classification of the Coleoptera of North America."

O. picipes n. sp.—Slender, depressed. Color throughout piceous-black; tarsi paler, testaceous; antennae dark blackish-fuscous toward base, palpi same; integuments impunctate, finely evenly and strongly alutaceous throughout every portion of the body, granulation coarser on the elytra and abdomen; pubescence of head and pronotum very fine, sparse and inconspicuous, that of the elytra much more dense, that of the abdomen very dense, short, fine, recumbent, cinereous, conspicuous. **Head** rather large; sides behind the eyes parallel and nearly straight; base transversely truncate; posterior angles rather narrowly rounded; eyes rather large, very coarsely granulated, at more than their own length from the base, somewhat prominent; interocular surface rather strongly convex, narrowly rounded anteriorly; antennal tuberculations small and prominent, intermediate surface flat; labrum transverse, very strongly ridged longitudinally, middle teeth rather long and prominent; antennae slightly shorter than the head and prothorax together, strongly geniculate, slender, tip of apical joint paler, basal joint robust, sub-cylindrical, two and one-half times as long as wide, very slightly longer than the next two together, second slender, very slightly longer than the third, joints four to ten sub-moniliform, nearly equal in length, increasing very slightly in width; third joint of maxillary palpi longer than the second, more than twice as thick, very robust, obtusely rounded at tip, fourth not visible. **Prothorax** slightly longer and very slightly narrower than the head; sides parallel and very feebly arcuate, strongly convergent in the anterior fifth and nearly straight to the neck which is very slender and scarcely one-fifth as wide as the head; base broadly and very feebly arcuate; basal angles rather broadly rounded; disk rather strongly convex, much less so than the head, nearly one-third longer than wide. **Elytra** very slightly wider than the head; sides parallel, slightly arcuate, more strongly so near the apical angles; together broadly roundly and rather feebly emarginate behind; disk much longer than the pronotum, one-third longer than wide. **Scutellum** very small, semi-circular in outline. **Abdomen** at base very slightly narrower than the elytra; sides of the first four segments gradually divergent and straight; border strong, inclined, equal; fifth segment nearly as long as the two preceding together, sixth short. **Legs** rather short; femora swollen, upper edges rounded, strongly arcuate, slightly paler toward tip; tibiae slightly swollen toward tip; tarsi rather robust, first four joints of the anterior slightly dilated and spongy-pubescent beneath.

Male.—Fifth ventral segment very broadly and feebly sinuate throughout its width at apex; sixth emarginate at tip, notch more than twice as wide as deep, narrowly rounded at the bottom, sides feebly arcuate, apices angulate; seventh narrow, minutely emarginate at tip.

Female.—Body slightly wider; anterior and middle legs paler; sixth ventral segment angularly rounded behind.

Length 2.3-2.5 mm.

Cape May, New Jersey, 5.

This species is somewhat abundant under débris on the sea-beach at Cape May, and can easily be distinguished from *exiguus* by its dark legs, sexual character and structure of the head. The anterior tarsi in the female are spongy beneath, but slightly less dilated than in the male.

O. punctatus n. sp.—Very slender, filiform, rather convex, intense black throughout polished, punctate; abdomen alutaceous, coarsely granulose; antennae, tibiae, tarsi and second joint of the maxillary palpi dark fuscous; femora and third joint of the maxillary palpi very dark piceous-black; labial palpi very pale flavo-testaceous, rather opaque; pubescence fine and very sparse except on the abdomen where it is slightly dense, pale fulvous. **Head** longer than wide; sides behind the eyes parallel, distinctly but feebly arcuate, truncate at base; posterior angles rather broadly rounded; eyes small, feebly convex, at nearly twice their length from the base; interocular surface and occiput strongly convex, declivous at the base and sides behind the eyes, scarcely punctate anteriorly, finely evenly and rather densely so posteriorly and laterally; punctures round, very small, rather deep, separated by scarcely twice their own widths; not punctate but very minutely ruguloso-strigate beneath, broadly and rather feebly arcuate anteriorly between the antennal tuberculations which are small and not very prominent; labrum strongly rugose anteriorly, middle teeth stout, acute at tip and well marked; antennae about one-half longer than the head, rather slender, very feebly incrassate toward tip, basal joint moderately thick, as long as the next two together, second much longer than the third; basal supports of the labial palpi very prominent, appearing like a basal joint, first joint small cylindrical, as long as wide, second twice as long, oval, scarcely thicker, third very thin acicular throughout, shorter than the second; second joint of the maxillary palpi thin, slightly bent and very feebly thicker toward tip, third much longer than the second, more than twice as thick, twice as long as wide, very thin at base, strongly and evenly clavate, narrowly truncate at tip, fourth scarcely visible, extremely minute, oblique, subulate. **Prothorax** slightly shorter than the head and distinctly narrower; sides from the apex very strongly divergent and feebly arcuate for one-fourth the length, thence just visibly convergent to the basal angles and nearly straight; basal angles rounded; apex equal in width to the neck, transverse, two-fifths as wide as the pronotum; base transverse; disk rather convex, about one-fourth longer than wide, rather sparsely coarsely irregularly and very feebly punctate; medial longitudinal area impunctate. **Scutellum** small, very transverse. **Elytra** at base much wider than the head; sides parallel, feebly arcuate; together broadly roundly and very feebly sinuate behind; apical angles rounded; disk rather convex, rather coarsely evenly and extremely feebly punctate; punctures round, distant by one-half more than their own widths; somewhat more than one-third longer than the pronotum, and more than one-third longer than wide. **Abdomen** at base distinctly narrower than the elytra; sides divergent and straight, and the

border strong and nearly equal throughout the first four segments, fifth as long as the two preceding together, sixth much shorter; under surface much paler toward tip. **Legs** slender; femora slender, very feebly swollen; first four joints of the posterior tarsi very short, cylindrical, decreasing very gradually but distinctly in length. **Abdomen** beneath very slightly paler toward tip.

Male.—Fifth ventral segment abruptly produced in the middle fourth at apex into a very short wide process which is broadly arcuate behind, with its surface slightly reflexed and impressed in the middle, the impression extending anteriorly for a short distance along the segment; sixth segment deeply emarginate at apex, notch slightly deeper than wide, taking the entire apex, bottom acutely rounded, sides sinuate, apical angles slightly produced inwardly, more broadly rounding externally and thence anteriorly along the sides of the segment, apices very narrow; middle process of seventh segment very narrow, flat, sides parallel and straight, truncate at tip.

Female.—Unknown.

Length 3.0 mm.

California, 1.

A very singular species, not only from its resemblance in sculpture to *Lathrobium*, but because of its sexual characters.

STILICUS Latr.

S. latiusculus n. sp.—Form rather robust, depressed; sides parallel. Pubescence of head and pronotum excessively fine and sparse, scarcely visible; that of the elytra much coarser, rather sparse, pale, not conspicuous; that of abdomen much finer, more dense and recumbent toward tip. Color throughout deep black; elytra slightly aeneous, pale testaceous along the apical edge, more widely so toward the apical angles; legs pale brownish-rufous; anterior coxae much darker, castaneous; antennae dark reddish-fuscous. **Head** large, very slightly longer than wide; sides behind the eyes strongly convergent, moderately arcuate; posterior angles broadly rounded; base above truncate at the neck, beneath strongly emarginate in the middle, emargination in the form of an acute cusp; eyes large, rather prominent; genae from the eye to the neck equal in length to the former; interocular surface very moderately convex, coarsely variolately and extremely densely punctate, punctures elongated, and, toward the sides, semi-coalescent; in the middle in a very small elongated area they are isolated and comparatively sparse; supra-antennal tuberculations small and prominent; epistoma transversely truncate anteriorly; labrum broadly arcuate, rounded at the sides, teeth very small, short and robust; antennae but slightly longer than the head, very slender, very feebly incrassate toward tip, basal joint slender, slightly longer than the next two together, second much shorter and slightly more robust than the third, fourth as long as the second, more slender than the third, two-thirds longer than wide, tenth slightly wider than long, eleventh conoidal, finely acuminate; under surface strongly and roundly declivous behind and toward the emargination, nearly flat between the eyes, coarsely and very densely punctate, punctures generally not coales-

cent, interspaces one-third as wide, polished. Neck very narrow. **Prothorax** widest at one-third the length from the apex where it is distinctly narrower than long; sides thence very strongly convergent and feebly sinuate to the anterior angles, and very feebly convergent and nearly straight to a point one-fourth the length from the base where they become much more strongly convergent and straight to the basal angles; apex scarcely more than one-half as long as the base, broadly sinuate; apical angles acute; base broadly arcuate; disk very strongly convex, coarsely variolately and densely punctate, punctures nearly round and not coalescent; along the middle there is a broad highly polished impunctate area, equally wide throughout, and having along its crest a very feeble stria. **Elytra** at base slightly narrower than the head; sides parallel, feebly arcuate toward the apices; together broadly roundly and very feebly emarginate behind; disk slightly longer than wide, depressed, highly polished, impressed rather strongly along the suture toward the base, very minutely evenly and sparsely punctate, punctures round and very distinct. **Abdomen** at base slightly narrower than the elytra; sides divergent to the third segment which is equal in width to the fourth; border strong; surface broadly convex, finely closely and asperately punctate; punctures arranged transversely and sub-serially; each dorsal segment bearing near the apex on each side and within the border a long erect black seta, and a short discal one near the middle. **Legs** slender; first joint of the posterior tarsi as long as the next two together. Prothorax narrowly and somewhat feebly carinate.

Male.—Fifth ventral segment broadly roundly and very feebly emarginate in the middle third at apex, not toothed; sixth segment abruptly emarginate in its middle third at apex, emargination evenly and almost semicircularly rounded, slightly more than twice as wide as deep.

Female.—Second joint of antennae distinctly longer than the fourth, very slightly shorter than the third. Sixth ventral segment evenly rounded behind.

Length 3.7–4.6 mm.

Willetts Point, Long Island, 3; Atlantic City, New Jersey, 1.

It is very singular that such a distinct and well-marked species as the present should have so long escaped detection. It probably should be placed immediately after *opaculus* in Dr. LeConte's table of the genus, and may be distinguished from *quadriceps* by the head not being quadrate behind the eyes and not emarginate at base above; from *opaculus* it is at once distinguishable by the sexual characters. The above description is taken from the male. The pronotum has on each side two long erect black setae.

While writing of this genus it is proper to remark that the portion of the head behind the eyes in my representative of *S. rudis* Lec., although very much longer than usual in this genus, is still one-third wider than long, and not as Dr. LeConte states longer than wide.

ERCHOMUS Mots.

E. flavidus n. sp.—Form as in *ventriculus*. Color throughout evenly flavo-testaceous, with a slightly reddish tinge; head dark piceous-brown; antennae pale toward base, dark piceous-brown toward tip, apical joint slightly paler toward tip. **Head** much broader than long, strongly deflexed; front feebly convex, feebly strigose and nearly vertical, nearly semicircularly rounded from the front margin around the sides and base, and in contact with a similarly rounded emargination in the pronotum; antennae but very slightly longer than the width of head, first joint more than twice as long as wide, cylindrical, second thinner, conoidal, base narrow, two thirds as long as the first, third shorter than the second, very thin, conical, fourth very small, wider than long, first four joints glabrous, remaining joints increasing in width, slightly compressed, roughly and finely asperate, densely and very finely pubescent, and coarsely and sparsely setose, fifth but very slightly wider than long, tenth nearly one-half wider than long, eleventh distinctly longer than wide, obtusely rounded at tip, ovoidal. **Prothorax** slightly more than twice as wide as long; apex from above transverse and straight, three-fifths as long as the base which is also transverse and straight; sides strongly and exactly evenly rounded throughout, being almost an exact arc of a circle, the tangents drawn to it at the base are not parallel but very feebly divergent anteriorly; basal angles from above right and not at all rounded, viewed laterally narrowly rounded and slightly acute; disk very strongly convex, strongly margined at the sides, polished, very minutely evenly and rather sparsely punctate. **Elytra** at base as wide as the contiguous pronotum; sides continuous in direction with the pronotal tangents at the basal angles, or very feebly convergent posteriorly, slightly arcuate; together broadly roundly and extremely feebly emarginate behind; disk about one-third longer than the pronotum and nearly one-half wider than long, very convex, shining, finely and roughly undulated or rugulose, also finely and evenly punctate; punctures larger than those of the pronotum, sometimes in broken longitudinal aggregations. **Abdominal** segments decreasing very rapidly in width, first narrower than the contiguous elytra; border narrow and inconspicuous; surface shining, strongly convex, covered very sparsely with excessively short fine and recumbent cinereous hairs, finely and regularly imbricated, imbrications longer than wide, acute, finely reticulated; each segment beneath bears a short stout intensely black seta near the apex and the lateral edge; the sixth segment having two longer ones on each side. **Legs** short and stout; posterior tibiae having two stout spines on the inner side, and terminated by several short irregular spines, and a few close stout spinules, not darker; tarsi cylindrical, nearly glabrous, first joint nearly as long as the next three together. Length (contracted) 2.0 mm.

Jenkintown, near Philadelphia, 4.

The description is taken from the female, and the middle lobes of the sixth ventral segment are terminated by four stout closely placed arcuate spinules; the dorsal teeth are as in *ventriculus* except that

the middle teeth are rather less slender and project further beyond the lateral ones than in that species. At first glance this species, especially if represented by a single specimen, would be pronounced without doubt a pale specimen of *ventriculus*, but when examined carefully it presents so many points of departure from that species irrespective of color, as to leave no doubt whatever of its distinctness. The principal differences are in the color, structure of the antennae, elytral sculpture, abdominal imbrication and slight differences in the sexual characters. In *ventriculus* the color is invariably intense black throughout, the fourth joint of the antennae is fully as long if not longer than wide, and the outer joints are more transverse in proportion; the elytral sculpture is smoother, although more strongly punctate, and the imbrication of the abdomen is much more irregular. This species is evidently not the form alluded to by Dr. Horn, and represented by the paler specimens of *ventriculus*, the paleness being apparently due to immaturity; the black abdominal setae and dark piceous color of the head alone refute this view, there being not a particle of variation in the four specimens before me.

CONURUS Steph.

C. versicolor n. sp.—Form rather robust, very convex. Pubescence rather coarse and sparse, yellowish-cinereous; head and prothorax dark reddish-brown, base of the latter paler; elytra at base reddish-testaceous, the color extending slightly along the elytra, remainder of the disk piceous-black; abdomen very dark piceous-brown; under surface of the body very pale reddish-testaceous, abdomen dark brown: first three joints of antennae pale testaceous, four to ten dark brown, eleventh reddish-testaceous. **Head** nearly twice as wide as long, moderately convex, highly polished, broadly rounded behind, strongly deflexed; emargination of pronotum for its reception much more than twice as wide as long, broadly rounded at bottom, sides near the apical angles parallel; epistoma very slightly wider than long, finely rugulose, finely and sparsely punctate, sides nearly parallel and straight, apical margin broadly areolate; antennae nearly as long as the head and prothorax together, extremely strongly compressed toward tip, the last joint being very thin, second joint much shorter than the third, third to fifth equal in length, the first two equal, thinnest, cylindrical, the fifth broader toward tip, joints six to ten shorter, sub-equal in length, increasing in width, slightly narrowed toward base, sides straight, the former nearly twice as long as wide, the latter slightly shorter than the tenth and but very slightly longer than wide, eleventh elongate, oval, obtusely rounded at tip, much shorter than the two preceding together. **Prothorax** widest at the base where it is a little more than one-third wider than long; sides very evenly and moderately rounded; apex much less than one-half as long as the base, very feebly areolate, the latter straight; basal angles from above slightly acute and not at all rounded, laterally slightly produced, rather strongly

and very evenly rounded; sides very feebly sinuate toward the apical angles which are very narrowly rounded; disk very convex, highly polished, excessively minutely transversely and feebly strigose, not punctate except the impressions left after the denudation of the hair. **Elytra** at base as wide as the contiguous pronotum; sides moderately convergent posteriorly and feebly arcuate; together nearly transversely truncate behind; disk very slightly wider than long, strongly convex, shining; sculpture finely feebly and evenly imbricate, imbrications wider than long, finely reticulate; disk also distinctly and minutely aspero-punctate, an asperate setigerous puncture at the base of each imbrication. **Abdomen** at base very slightly narrower than the elytra, pale at tip, finely pubescent, having numerous erect coarse black spinous setae at the sides. **Legs** moderate, pale reddish-testaceous; femora and middle tibiae flattened, the latter fimbriate at tip and for one-fourth the length along the inner edge with erect stout closely placed black spinules, having also one long stout terminal spur, and one smaller erect spine on the inner edge near the middle; anterior tarsi broadly dilated, spongy-pubescent beneath; anterior tibiae fimbriate along the outer edge from base to apex with stout black closely set spinules; mesosternum very narrowly and strongly carinate; prosternum having a median tuberculation bearing five long slender parallel setae, the middle one the longest. Length (strongly contracted) 2.4 mm.

Jenkintown, near Philadelphia, 1.

This species belongs immediately after *crassus* in the catalogue, and may be distinguished from that species by its much smaller size, coloration, and shape of the epistoma, it being very strongly transverse, transversely truncate anteriorly with the sides parallel and slightly sinuate. The two species also differ in the structure of the antennae, in which the tenth joint is not shorter than the ninth, is less strongly compressed, and is much longer than wide in *crassus*; also in the latter the eleventh joint is more abruptly compressed, is extremely thin and two and one-half times as long as wide. The emargination of the pronotum for the head in *crassus* is much shallower, and the sides near the anterior angles are very widely divergent.

The beautiful fimbriation along the edge of the anterior tibiae which also exists to a less marked degree in *crassus*, is a character which does not seem to have been noticed, as may perhaps also be the case in regard to the prosternal spines.

C. imbricatus n. sp.—Form very convex, rather slender. Color piceous-black, posterior margin of the pronotum very narrowly paler from diaphaneity; abdomen paler, reddish-fuscous, paler toward tip; pubescence very fine, rather dense, recumbent, almost equally distributed over the entire dorsal surface. **Head** wider than long, polished, very minutely sparsely and evenly punctate, slightly more strongly so anteriorly; eyes rather small and slightly prominent; antennae scarcely as long as the width of head, slender and paler toward base, piceous-brown, apical joint very pale flavate, penul-

minate darker not very densely pubescent, first joint slender, very slightly thicker than the second and but one-fourth longer, more than three times as long as wide, second slender, sub-cylindrical, three-fourths as long as the third which is very slender, slightly narrowed toward base, third to fifth slightly decreasing in length and increasing in thickness, the latter about twice as long as wide and almost cylindrical, sixth to tenth nearly equal in length, shorter than the fifth, increasing in width, the former slightly longer than wide, the latter one-third wider than long, sides moderately convergent toward base, basal angles broadly rounded, eleventh nearly as long as the ninth and tenth together, slightly wider than the tenth, somewhat abruptly constricted toward the tip which is obliquely produced and acutely rounded, outer joints somewhat distinctly compressed: third joint of the maxillary palpi much longer and thicker than the second, third thin, conical, shorter than the second. **Prothorax** widest at one-fourth the length from the base where it is about one-third wider than long; sides not strongly arcuate; apex from above rather strongly arcuate, about one-half as long as the base with the angles rounded and obsolete, basal angles slightly produced, right, and not rounded from above, slightly obtuse viewed laterally and not rounded; base transverse and straight: pronotum not punctate except in the minute impressions left by the denuded pubescence, transversely very minutely and feebly strigose. **Elytra** at base very slightly narrower than the pronotum; sides feebly convergent posteriorly and slightly arcuate, apical angles rounded broadly behind; together transversely and just visibly emarginate behind; inner apical angles narrowly rounded; disk broadly convex, very slightly wider than long, about as long as the pronotum, shining, densely finely and feebly imbricate, imbrications slightly longer than wide, coarsely reticulate, very minutely punctate-asperate. **Abdomen** at base as wide as the contiguous elytra, having a very few short, black setae along the sides, and long black prominent setae on the sixth segment, excessively finely alutaceous. **Legs** rather long and slender, dark reddish-testaceous; middle femora with a single long stout erect spine on the lower edge near the tip; middle tibiae with a long stout and a second small slender terminal spine, also fimbriate at tip with short very robust equal spinules, pale in color. Length (somewhat extended) 3.3 mm.

Staten Island, New York, 1 ♀.

The sixth ventral segment is narrowly and roundly produced in the middle, the edge of the almost semicircular produced portion bearing six equal and stout porrected spines which are parallel, there is also a very small obtuse projection of the edge at each side which bears an extremely long black seta; dorsal quadridentate, middle teeth projecting slightly beyond the lateral, acute; middle notch less deep than the lateral; lateral teeth each bearing three stout black discal setae, the terminal two very long, the middle pair each one, much shorter: each tooth is prolonged posteriorly in a stout porrected pale seta. The species belongs immediately after *pubescens* in the catalogue.

It will be noticed that there is a very marked difference in the structure of the antennae in the present group and that containing *crassus* and *versicolor*.

C. occultus n. sp.—Form rather robust, oval. Color black; elytra near the humeri slightly reddish, and also paler and reddish narrowly along the apices; pronotum much paler in a narrow border along the base; abdomen piceous-black, apices of the segments narrowly translucent and bright fulvous by transmitted light, scarcely paler by reflected light, terminal segment not paler; pubescence rather sparse, coarse and somewhat unevenly distributed, pale yellowish-cinereous. **Head** much wider than long, rather convex, highly polished, very feebly and minutely punctulate; eyes small, not prominent; antennae slightly shorter than the head and prothorax together, two basal joints pale testaceous, remainder dark piceous-brown, terminal joint paler, joints rather strongly compressed toward tip, basal joint rather robust, two and one-half times as long as wide, narrowed toward base, bearing two short black setae near the tip, second slightly more slender, oval, third scarcely as long as the second, very slender, narrowed toward base, fourth slightly shorter and wider than the third, slightly more than twice as long as wide, much broader at base than the third, joints five to ten decreasing very slightly in length and increasing in width, the former very slightly shorter than the fourth, about two-thirds longer than wide, the latter about as wide as long, sides rather strongly convergent to the bases, basal angles very slightly rounded, eleventh distinctly shorter than the ninth and tenth together, scarcely more than one-half longer than wide, feebly constricted near the tip which is obtusely but not appreciably obliquely rounded. **Prothorax** widest at the base where it is scarcely one-fourth wider than long; sides very evenly and rather strongly arcuate; apex broadly and distinctly arcuate, very slightly more than one-half as long as the base which is broadly and feebly arcuate and feebly sinuate toward the basal angles: the latter, viewed laterally, strongly obtuse and rather broadly rounded; sides straight toward the apical angles which are narrowly rounded; disk very strongly convex, highly polished, finely evenly and very distinctly punctato-asperate, intervals transversely and very minutely strigate. **Elytra** at base about as wide as the pronotum; sides feebly convergent posteriorly, slightly arcuate near the humeri, straight near the apices; together broadly triangularly and feebly emarginate behind; disk shining, strongly convex, sculpture coarsely and obscurely imbricate, imbrications broader than long, finely and distinctly reticulated, each with a minute but distinct and strongly asperate puncture at base. **Abdomen** very convex, shining, sculptured like the elytra, imbrications obscure, segments smoother and less punctate toward the apices; along the sides there are a few short erect black setae, and a cluster of about ten larger and longer ones bristling from the posterior segment; under surface much more coarsely and closely punctate. **Legs** rather slender, dark reddish-testaceous; middle femora with four erect spines along the lower edge near the tip, the penultimate much the longest; posterior femora with three such spines, the middle one the longest; middle tibiae fimbriate at tip with short equal closely set spinules, terminated by a single very robust

spine, having at the middle of its length one or two interior and two exterior stout oblique spines; anterior tarsi strongly dilated; corresponding coxae strongly globose, dark brown in color, surface coarsely imbricate. Length (contracted) 2.8 mm.

District of Columbia, 1.

It may be possible that there is a second smaller spine at the apex of the middle tibiae, but it is not visible in the type specimen. It appears to belong immediately after *bisignatus*. The structure and shape of the pronotum and elytra in many species of the present genus call to mind very vividly several forms of *Trichopteryx* on a gigantic scale.

C. corticola n. sp.—Form rather slender. Color piceous-black; elytral humeri scarcely distinguishably reddish; abdomen not paler except at tip and by transmitted light; pubescence rather dense, short and coarse, very pale yellowish, more dense and conspicuous on the abdomen. **Head** much wider than long, rather convex, highly polished, very minutely punctate, punctures being nearly completely filled by the hairs; sides of the contiguous emargination of the pronotum nearly parallel at the apical angles viewed longitudinally; antennae robust, scarcely as long as the head and prothorax together, first two joints translucent, dark flavo-testaceous, eleventh opaque, pale flavate, remainder piceous-black, basal joint rather robust, narrowed toward base, scarcely more than twice as long as wide, second but very slightly shorter and thinner, oval, third as long as the first, slightly thinner than the second, narrowed toward base, four to ten decreasing very gradually in length and increasing in width, the former about three-fourths as long as the third, scarcely two-thirds longer than wide, the latter one-fourth wider than long, sides of all very feebly convergent toward the base, nearly straight, basal angles feebly rounded, eleventh very abruptly pale, scarcely one-third longer than wide, oval, very feebly constricted at tip which is obliquely and obtusely rounded, outer joints rather strongly compressed, basal joints with two long setae above near the tips, outer joints coarsely setose and finely pubescent. **Prothorax** widest at one-fourth the length from the base where it is nearly two-thirds wider than long; sides moderately arcuate; apex broadly and feebly arcuate, sinuate near the apical angles, fully three-fifths as long as the base which is broadly and feebly arcuate; basal angles from above obtuse and not rounded, viewed laterally obtuse, very slightly produced and very slightly rounded, sides almost straight toward the apical angles which are right and not at all rounded; disk very strongly convex, polished, minutely evenly and rather distantly punctato-asperate, interspaces very minutely and feebly strigato-reticulate. **Elytra** at base slightly narrower than the pronotum; sides feebly convergent posteriorly, rather distinctly arcuate near the humeri, straight toward the apical angles which are rounded; together nearly transversely truncate behind; inner apical angles slightly rounded; disk very strongly convex, shining, slightly wider than long and distinctly longer than the pronotum; sculpture strongly rather finely and somewhat distinctly imbricate, imbrications as wide as

long, finely and obscurely reticulate, each having at base a fine but very distinct asperate puncture. First abdominal segment much narrower than the contiguous elytra; surface more finely and densely punctate than the elytra, feebly shining through the very dense coarse pubescence, having along the sides a few rather small erect black setae. Legs moderate; coxae and femora dark reddish-brown; tibiae and tarsi distinctly paler, reddish-testaceous; spinules of the fimbriate row along the outer edge of the anterior tibiae short, equal, contiguous and very pale in color; anterior tarsi strongly dilated toward base, densely pubescent beneath; middle tibiae slender, fimbriate at tip with short equal pale spinules, also having a rather long terminal spine and a second much shorter one, having at the middle of its length two small oblique inner and two outer spines, also at one-third the length from the apex two inner and one or two similar outer spines. Under surface of the body dark piceous-brown. Length (contracted) 2.3 mm.

Jenkintown, near Philadelphia, 2 ♂.

The description is taken from a male while that of *occultus* is drawn from the female; the differences noted in the shape of the pronotum, together with the structure of the middle tibiae are too great to be accounted for by sex, although it may be possible that the lateral spines alluded to are not altogether constant. It appears to belong near *pubescens* in the tables.

C. setifer n. sp.—Form rather slender, very convex. Color of head and prothorax black, basal margin of the latter paler; elytra dark piceous-black, paler and reddish at the base, especially near the middle of each, also narrowly paler at the apices; abdomen reddish-fuscous; pubescence very fine and moderately dense, very short and recumbent, cinereous. Head rather small, convex, polished, very sparsely pubescent; eyes very coarsely reticulated; antennae not as long as the head and prothorax together, very strongly compressed toward tip, basal joints dark piceo-testaceous, paler toward tip, joints two to seven nearly piceous-black, basal joint sub-cylindrical, about two and one-half times as long as wide, second thinner, nearly cylindrical, scarcely two-thirds as long as the first, three-fourths as long as the third which is thinner and narrowed toward base, third and fourth equal, fifth equal in length, slightly thicker and less strongly narrowed toward base, nearly three times as long as wide, joints six to ten slightly shorter, equal in length, increasing in width, the former nearly one-half longer than wide, the latter about as wide as long, eleventh about one-half longer than wide, oval, obliquely and rather obtusely acuminate at tip. Prothorax about one-third wider than long; sides very evenly and almost circularly arcuate throughout, nearly parallel for a short distance from the base; apex broadly arcuate, nearly three-fifths as long as the base which is broadly and very feebly arcuate; basal angles from above slightly obtuse and not rounded, viewed laterally they are obtuse and narrowly rounded; disk very convex, highly polished, impunctate except the scars left by fallen hairs. Elytra at base slightly narrower than the pronotum; sides slightly convergent posteriorly, feebly arcuate near the humeri, nearly straight

toward the apical angles which are obtusely rounded; together broadly triangularly and feebly emarginate behind; disk very convex, shining, distinctly wider than long and equal in length to the pronotum; sculpture rather coarsely and very distinctly imbricate, finely reticulate, very minutely and not distinctly punctato-asperate. **Abdomen** at base narrower than the elytra; surface more finely and indistinctly sculptured; apices not punctate, transversely and excessively finely strigose, having along each side a double line of erect very coarse long black bristles which are very prominent. **Legs** long and slender, dark rufo-testaceous, darker toward the coxae; middle tibiae with one terminal spine, and also fimbriate at tip with unusually short and equal spinules which are not as close as those of the preceding species, this tibia also has usually one outer and two inner spines along the sides; under surface of the body nearly piceous-black. Length (contracted) 1.9-2.3 mm.

Jenkintown, near Philadelphia, 2.

The description is drawn from the male; the female has on the discal surface of the second and third abdominal segments a third inner line of black bristles, one on each segment; none of the bristles are apical, and they are all very large and conspicuous. The female is the smaller.

This species should probably be placed after *basalis* in Dr. Horn's table, and may be distinguished from that species by its very small size and the single terminal spine of the middle tibiae.

In *Conurus* the anterior tarsi are dilated equally in both sexes, at least in all the species which I have examined; and not as stated by Dr. Horn in the male only. It is probably a very extensive genus in the United States, judging by the above new forms found near Philadelphia, and the large number described from the tropical regions of our continents. They are exceedingly active and often difficult to capture, disappearing as soon as the bark, under which they usually live, is removed from the fallen log, and, unless a cloth is held in readiness below, they are generally lost.

BOLITOBIVS Steph.

B. facilis n. sp.—Form moderately robust, depressed. Head black; pronotum pale flavo-testaceous, very translucent; elytra very translucent, flavo-testaceous except a black spot near the apex of each indefinitely shaded, not attaining the apical edges, extending broadly to and along the epipleurae, and becoming narrower toward the suture which is nearly attained, suture very narrowly dark castaneous; abdomen unicolorous above and beneath, reddish-brown; apices of the segments translucent and paler above, nearly black beneath. **Head** very slightly longer than wide, very highly polished; labrum, oral organs and first three joints of the antennae pale flavo-testaceous, remaining joints of the latter piceous-black; maxillary

palpi long and slender, third joint nearly as long as the second and as robust, second bent, fourth much longer than the third, exactly conical, extremely acute at tip, nearly as wide at base as tip of third, nearly four times as long as wide at base; antennae nearly as long as the head and prothorax together, first joint slender, as long as the next two together, second thinner, sub-cylindrical, one-half longer than wide, third one-third longer than the second, conical, very slender at base, truncate at tip and very slightly longer than the fourth, joints four to seven increasing in width, the former cylindro-conical, one-third longer than wide, the latter as wide as long, joints seven to eleven sub-equal in width, ninth and tenth just visibly wider than long, eleventh slightly shorter than the two preceding together, elongate oval, paler in its distal half, joints from the fifth rather strongly compressed, fifth to tenth truncate at tip, narrowed toward base, having around the edge at tip several long stout setae. **Prothorax** widest at two-thirds its length from the apex where it is nearly one-third wider than long, sides broadly rounded, more strongly so toward the base; apex about two-thirds as long as the base, broadly arcuate, the latter transverse in the middle, broadly rounded toward the basal angles which are also rather broadly rounded; disk without median punctures, having the usual marginal punctures. **Elytra** at base as wide as the pronotum; sides very feebly divergent posteriorly, feebly arcuate; disk depressed, narrowly impressed along the suture, broadly and triangularly emarginate behind, slightly longer than wide, highly polished; sutural row of about ten punctures, row at the outer two-thirds exactly parallel to the suture of about nine, marginal row of about eleven punctures, all small but distinct, setigerous. **Abdomen** decreasing very rapidly in width, first segment about as wide as the contiguous elytra; border rather strong toward base; surface broadly convex, rather sparsely finely strongly and asperately punctate, somewhat thickly clothed with long fulvous setae; punctures of under surface equally dense but much more elongated, appearing like minute canaliculations. **Legs** very pale, flavo-testaceous, slightly more dense and rufous toward the ends of the tarsi; tibiae terminated by four or five very unequal spines; middle and posterior femora having a few short closely set erect spines along the inner edge at the tips; posterior tarsi long and very slender, distinctly longer than the femora, first joint as long as the next three together.

Male.—Sixth ventral segment having a rather feeble oval impression near the tip, which is coarsely and peculiarly roughened, tip slightly prolonged and broadly rounded behind; seventh segment rather acutely rounded behind.

Female.—Smaller in size and more slender, abdomen extremely sparsely and finely punctate, ventral segments normal.

Length 2.8–4.0 mm.

Jenkintown, near Philadelphia, 3; Washington, District of Columbia, 2.

Just outside of the upper epipleural edge there is a row of small closely placed non-setigerous punctures. This species probably belongs immediately after *axillaris* in Dr. Horn's table of the genus.

One specimen, a female, I shook into the beating net from a low bushy tree.

B. occiduus n. sp.—Form rather robust. Head black, oral organs and first three joints of the antennae flavo-testaceous; disk of prothorax piceous-black, anterior margin extremely narrowly, sides and base more broadly brownish-testaceous, translucent; elytra brownish-testaceous, very pale, indefinitely clouded with darker castaneous-brown toward the apices and along the epipleurae, very translucent; abdomen dark piceous-brown, darker, nearly black beneath, apices of the segments paler in both cases; under surface anteriorly piceous-black; legs pale brownish-testaceous, anterior coxae slightly darker. **Head** robust, distinctly wider than long, moderately convex, very highly polished; maxillary palpi moderately slender, second joint very feebly arcuate, about twice as long as wide, third as long as the second, conical, twice as thick at apex as at the base, fourth conical, no longer than the third, very acute, slightly more than twice as long as wide at base; antennae slightly shorter than the head and prothorax together, first joint scarcely as long as the next two together, second three-fourths longer than wide, nearly cylindrical, as long as the third, third more slender, strongly constricted toward base, joints four to ten increasing gradually in width, the former slightly longer than wide, seven to ten distinctly wider than long, slightly compressed, nearly equal in length, trapezoidal, eleventh compressed, elongated, oval, not as long as the two preceding together, not paler at tip, joints four to eleven black, coarsely and longitudinally punctate. **Prothorax** widest at two-thirds its length from the apex where it is one-fourth wider than long; sides thence very feebly convergent and very slightly arcuate to the basal angles, which are rather broadly rounded, slightly more convergent and very feebly arcuate anteriorly; apex transverse and nearly straight, three-fourths as long as the base which is broadly arcuate; disk rather convex, highly polished, middle apical punctures at a slight distance from the apical margin. **Elytra** at base as wide as the prothorax; sides feebly divergent and feebly arcuate, more strongly so toward the apices; together broadly and very feebly emarginate toward the suture behind; disk depressed, highly polished, as long as wide, narrowly impressed along the suture; punctures very fine, setigerous, sutural row of four or five, discal row of five or six, marginal of five or six all somewhat irregularly spaced, along the crest of the raised upper margin of the epipleurae there is a row of very minute slightly oval non-setigerous punctures, seven or eight in number. **Abdomen** polished, moderately convex; sides straight and rapidly convergent, basal segment nearly as wide as the contiguous elytra; border strong on the first four; surface sparsely and canalicularly punctate, impunctate in the middle toward the base; pubescence coarse and very sparse, under surface more densely and coarsely punctate. **Legs** moderate, posterior slender; posterior tibiae terminated by seven to eight very unequal spines, corresponding tarsi slightly longer than the tibiae, first joint not as long as the next three together; middle and posterior femora with three or four long slender erect spines near and at the tip, along the inner edge. Prosternum strongly carinate; anterior coxae strongly globose; posterior and lateral

portions of the under surface of the head rather coarsely and strongly rugulose or obliquely strigate. Length 3.4 mm.

Washington Territory, 1.

This species also belongs near *axillaris* because of the unicolorous abdomen, and the transverse joints of the antennae. The pronotum somewhat resembles that of *cincticollis*.

BRYOPORUS Kraatz.

B. parvulus n. sp.—Form very slender, linear, convex. Head black; remainder of the body very dark blackish-red; elytra slightly paler from diaphaneity; legs paler, testaceous; antennae at base and oral organs same, the former toward tip dark fuscous. **Head** moderately convex, slightly longer than wide, strongly deflexed, highly polished; antennae about as long as the head and prothorax together, rather slender, basal joint longer than the next two together, second and third equal in length, the latter more conical and much narrower toward base, joints four to ten increasing in width, nearly of equal length, the former slightly longer than wide, the latter one-third wider than long, all truncate at base and apex, sides very feebly convergent toward base, eleventh slightly longer than wide, as wide as the tenth, sides gradually convergent toward tip which is rather acutely rounded, outer joints rather strongly compressed; maxillary palpi rather slender, last three joints equal in length, fourth conical, acute, as wide at base as the apex of the third, sides very feebly arcuate. **Prothorax** widest at three-fourths the length from the apex where it is very slightly wider than long; sides nearly evenly and rather feebly arcuate throughout; basal angles rather narrowly rounded; apex nearly transverse, about two-thirds as long as the base which is very broadly and feebly arcuate; disk polished. **Elytra** at base as wide as the pronotum; sides parallel and nearly straight; together just visibly emarginate behind; disk polished, depressed, scarcely perceptibly longer than wide; sutural row of six or seven distinct punctures; elsewhere the punctures are sparse, very feebly impressed, and arranged in many incomplete rows; punctures along the crest of the upper marginal line of the epipleurae widely spaced and few in number; epipleurae narrow, not attaining the apices of the elytra which are strongly inflexed toward the apical angles. **Abdomen** at base fully as wide as the elytra; sides feebly convergent behind and nearly straight; border strong; surface rather feebly convex, polished, finely and rather closely punctate, nearly piceous-black, apices paler, rufous; rather densely pubescent, hairs fulvous; under surface fulvous toward tip. **Legs** long and slender; anterior coxae robust, globose beneath; femora with several coarse erect unequal spines along the inner edge at tip; middle and posterior tibiae having three or four long stout very unequal spines at tip, and also fimbriate with very short close sub-equal spinules; posterior tarsi very long, first joint as long as the next two together, basal joints fimbriate at tip with short very close sub-equal spinules. Length 2.6 mm.

Pennsylvania, near Philadelphia, 1.

The genus *Bryoporus* cannot properly be separated from *Bolitobius* by the form of the maxillary palpi, as this organ is identical in structure in many parallel cases. The three rows of elytral punctures in *Bolitobius* appears to be a very constant character, and taken in connection with the much more linear parallel form of the body, and polyserial punctuation of the elytra in *Bryoporus*, forms apparently a much more steadfast mark of distinction than can possibly be maintained from the palpal structure. The very long posterior tarsi in *Bryoporus* is another distinctive feature, and there are differences in the form and extent of the elytral epipleurae.

The present species differs greatly from *rufescens* in size and punctuation of the elytra, and very distinctly in the structure of the elytral epipleurae and number of punctures along the crest of its upper margin.

MYCETOPORUS Mann.

M. inquisitus n. sp.—Form somewhat robust. Head black; prothorax dark reddish-testaceous; elytra dark piceo-testaceous, very indefinitely darker and brownish along the sides, and near the suture; abdomen piceous-black, apices of the segments paler; under surface of body intense black, legs pale testaceous, oral organs and basal joints of antennae same, remainder of antennae dark piceous-brown, terminal joint pale toward tip. **Head** very highly polished, small, distinctly wider than long; labrum paler, rather convex; maxillary palpi rather slender, second joint slightly bent, feebly narrowed toward base, more than twice as long as wide, third nearly as long as the first two together, narrowed toward base, nearly three times as long as wide, swollen toward tip which is squarely truncate, fourth nearly two-thirds as long as the third, very slender, finely acicular, abruptly swollen and somewhat bulbous toward base; antennae distinctly shorter than the head and prothorax together, first joint slender, about as long as the next two together, second scarcely narrower than the first, nearly twice as long as wide, oval, third just visibly shorter than the second, conical, very narrow at base, as wide at apex as the second, joints four to ten increasing in width, the former very slightly longer than wide, the latter nearly one-half wider than long, fourth slightly shorter than the fifth, fifth to tenth equal in length, eleventh scarcely longer than wide, oval, outer joints slightly compressed. **Prothorax** widest at one-fourth the length from the base where it is one-fourth wider than long; sides moderately arcuate; basal angles broadly rounded; apex very feebly arcuate, two-thirds as long as the base, the latter broadly and very feebly arcuate; disk rather convex, highly polished, most excessively feebly minutely and transversely strigate, having on each side at the outer two-thirds two setigerous punctures, round and rather deeply impressed, the posterior one at the middle, the anterior slightly nearer the median line; the usual two apical punctures are rather distant from the margin. **Elytra** at base scarcely as wide as the pronotum; sides very slightly divergent posteriorly and very feebly arcuate; together very

feebly emarginate behind; disk depressed, highly polished, narrowly impressed along the suture; punctures fine, sutural row of eight or nine, discal row arcuate toward the suture, of about nine, lateral row of ten, usual row of fine closely placed punctures along the crest of the upper epipleural margin, and another of excessively fine punctures along the upper edge of the lower margin; surface strigate, slightly more strongly than the pronotum. **Abdomen** at base nearly as wide as the elytra; sides nearly straight and strongly convergent; border strong toward base; surface broadly convex, highly polished, minutely and transversely strigate; each segment rather coarsely and closely punctate toward base, impunctate toward apex except a row of punctures along the apical edge; under surface slightly more closely and coarsely punctate, not appreciably strigate. **Legs** long and slender; middle and posterior tibiae fimbriate at apex with unequal coarse spines; femora with three or four erect coarse spines along the lower edge at tip; posterior tarsi slender, first joint but slightly longer than the next two together. Length 3.5 mm.

Pennsylvania, near Philadelphia, 1.

According to the table given by Dr. Horn this species should follow *consors*. In *inquisitus* the sides of the pronotum near the apical angles are strongly margined; the margin becomes much narrower toward the base.

Dr. Horn's paper on this genus is rather misleading in regard to the two species *lucidulus* and *consors*, as no mention is made of the important punctures to be seen on the pronotal disk outside of the two specified by him; they are, however, mentioned by Dr. LeConte in his original descriptions.

APOCELLUS Erichs.

From the marked variations ascribed by Dr. LeConte (Trans. Am. Ent. Soc. VI. p. 247) to the insects of this genus, it occurred to me that a revision under better conditions might give rise to a more satisfactory solution of the difficulty; the following synopsis is the result of this study. All the characters of the table are taken from males, and the descriptions are also drawn from the same sex except when indicated to the contrary.

Our species seven in number may be tabulated as follows:—

Head about equal in width to the prothorax; sides of the latter arcuate; femora generally robust.

Second joint of the antennae equal in length to the third.....1. **bicolor.**

Second joint much shorter than the third, the latter more elongated.

Prothorax as wide as long; antennae rather slender; abdomen piceous-brown, border becoming narrower posteriorly.....2. **sphaericollis.**

Prothorax broader than long; antennae short, nearly black, robust; abdomen nearly black, border very deep, vertical, very thin, not gradually decreasing posteriorly.....3. **crassicornis.**

- Prothorax longer than wide; antennae long and slender; abdomen nearly black, border not vertical, much less strong, thicker, not gradually diminishing posteriorly.....4. **gracilicornis**.
 Head wider than the prothorax which is trapezoidal; sides of pronotum sinuate; femora generally slender.
 Penultimate joint of the antennae longer than wide...5. **brevipennis**.
 Penultimate joint wider than long.
 Antennal joints 7-10 wider than long; epistoma transversely truncate anteriorly.....6. **analis**.
 Antennae very much shorter and more robust, joints 5-10 wider than long; epistoma strongly arcuate anteriorly, semicircular.

7. **stilicoides**.

For synonymy the student is referred to the above-mentioned notes by Dr. LeConte except for the authorship of *sphaericollis*, which is due to Say and not to Erichson.

1. **A. bicolor** n. sp.—Form moderately robust, depressed, widest across the abdomen. Pubescence sparse, semi-erect, fine and very inconspicuous. Color of head piceous, almost black, under surface somewhat paler; abdomen intense black above, dark piceo-fuscous beneath; remainder of the body, legs and base of the antennae pale testaceous, antennae infuscate toward tip. **Head** moderate, depressed; sides feebly convergent and rather strongly arcuate behind the eyes; truncate behind; eyes very small, coarsely granulated, moderately prominent, situated at more than twice their length from the posterior angles; interocular surface polished, not punctate; supra-antennal tuberculations very prominent, elongated, nearly parallel; antennae slightly longer than the head and prothorax together, all the joints longer than wide, very minutely pubescent, basal joint not as long as the next two together, outer joints twice as robust as the second, eleventh much shorter than the two preceding together; labrum broadly and deeply emarginate anteriorly where it is densely ciliate, testaceous in color. **Prothorax** slightly wider than long, widest at the middle where it is equal in width to the head; sides evenly and strongly arcuate; base just visibly shorter than the apex, the former feebly sinuate, the latter very broadly and rather feebly arcuate; apical angles broadly rounded, posterior very obtuse and but slightly rounded; disk very convex, not setose, polished, not punctate. **Elytra** at base just perceptibly wider than the head; sides extremely feebly divergent posteriorly, slightly shorter than the width at base, very feebly arcuate; together very broadly and feebly emarginate behind; suture and scutellum together distinctly longer than the pronotum; disk very depressed, shining, impunctate. Scutellum rather large, triangular, slightly wider than long, disk minutely rugulose. **Abdominal** segments increasing in width to the fourth, first at base slightly narrower than the contiguous elytra, fourth much wider, equal in width to the fifth; surface very depressed, polished, minutely reticulated, impunctate; border very strong, nearly erect on the first five segments, abruptly very narrow and inconspicuous on the remainder, sparsely herissate toward the tip with coarse piceous setae. **Legs** rather long, testaceous throughout; femora somewhat robust, tibiae very

slender, tarsi slender, third joint of the posterior less than twice as long as the two preceding together.

Male.—Sixth ventral segment broadly and roundly emarginate in its middle three-fifths at apex, edge of the emargination strongly reflexed and densely fimbriate, paler in color; the reflexed portion of the edge does not occupy the entire emargination, but abruptly leaves a small portion of the curve at the ends with the edge not modified. Seventh segment extremely deeply impressed in the middle four-fifths, sides of the impression in the form of very thin laminae projecting and acutely angulate posteriorly, where they converge toward each other, arching far over the emargination. Eighth segment acutely rounded behind, longitudinally and somewhat slightly impressed along the middle of its under surface.

Female.—Sixth segment very broadly and evenly rounded behind throughout; seventh very much narrower, acutely rounded behind.

Length 3.2–3.5 mm. Male smaller than the female.

Nebraska, 3.

It is almost impossible to describe the wonderful sexual characters of the male so as to convey an entirely lucid idea to one who has never seen the structure in nature. This species is distinct in its very marked contrasts of color, the abdomen being very black, and also by the peculiar structure of the antennae, in which the second joint is as long as the third; in addition to these differences there is a complete absence of the long coarse setae which bristle upon the pronotum and elytra of most of the others.

2. *A. sphaericollis* (Say).—Form rather more slender than in *bicolor*. Color of head dark piceo-testaceous; pronotum slightly paler; elytra nearly as dark as the head; abdomen dark piceous above, piceo-testaceous beneath; metasternum much darker than the prosternum; legs uniform throughout, very pale testaceous; antennae pale testaceous at base, becoming deeply infusate toward the tip. Pubescence in the form of stiff erect coarse setae, piceous-black in color and very sparse. **Head** moderate; eyes very small, slightly prominent, situated at more than twice their length in advance of the posterior angles; sides behind them slightly convergent and arcuate; interocular surface polished, impunctate; supra-antennal tuberculations long, strong, parallel, each having a foveate impressed puncture at its posterior extremity; antennae much longer than the head and prothorax together, rather slender, second joint much shorter than the third. **Prothorax** widest at the apical angles where it is as wide as long; sides thence very feebly convergent posteriorly and very feebly arcuate; base transverse and very feebly sinuate in the middle, apex broadly and strongly arcuate; surface very convex, impunctate and highly polished. **Elytra** at base slightly wider than the prothorax; sides slightly divergent and feebly arcuate; together broadly and extremely feebly emarginate behind, almost transversely truncate; suture and scutellum together distinctly longer than the pronotum; disk highly polished, impunctate except a row of very feeble distant punctures near the exterior edges. **First** abdominal segment as wide

as the contiguous elytra; sides very feebly divergent to the fourth and fifth segments which are equal in width and but slightly wider than the first; border erect, very strong toward the base, gradually becoming narrower to the tip of the sixth where it vanishes; surface depressed, impunctate, not reticulated, very highly polished. **Legs** rather short; tarsi extremely slender, third joint of the posterior more than twice as long as the two preceding together; claws very long.

Male.—Characters nearly as in *bicolor*, except that the eighth segment is more deeply and broadly impressed, and the arching laminae of the seventh nearly meet posteriorly.

Female.—Sexual characters nearly as in *bicolor*.

Length 2.7–2.9 mm.

Southern States (locality unknown), 1; Capron and Enterprise, Florida, 2.

The two Floridan specimens are females, and there are certain differences to be observed between them and the above-described type, viz.: the head is distinctly wider than the pronotum, the elytra are slightly longer, and the antennae have the terminal joint paler. As the first of these characters usually belongs to the male, the propriety of placing the specimens with this species may be questionable, but in the absence of the male it would be useless to attempt a description.

Longicornis Sachse appears to be identical with this species, the type in Dr. LeConte's cabinet has the terminal joint of the antennae slightly paler, the size is somewhat larger, the colors darker, and the laminae of the seventh ventral segment much more widely separated.

3. **A. crassicornis** n. sp.—Form slightly more robust than in *spharicollis*. Pubescence of abdomen fine, sub-recumbent and rather plentiful especially beneath, elsewhere rather sparse with a few rigid setae on the head and along the flanks of the pronotum, but not on the elytra. Color of head nearly black; prothorax dark fusco-testaceous; elytra rather paler, piceo-testaceous; abdomen piceous-black above, scarcely paler beneath; antennae testaceous at the base, blackish toward the tip, outer half of terminal joint very slightly paler; legs very pale testaceous, upper surface of femora rather abruptly castaneous in the outer third. **Head** moderate, depressed; eyes small, rather prominent; sides behind them very feebly convergent and arcuate; broadly truncate behind; interocular surface polished, impunctate, minutely and conspicuously rugulose near the antennal tuberculations; the latter very prominent, parallel, gradually becoming extinct posteriorly, anterior tips slightly paler; antennae twice as long as the head, penultimate joints slightly longer than wide but more than twice as robust as the second, second much shorter than the third, longer than the fourth. **Prothorax** robust; sides parallel and feebly arcuate; widest in the middle where it is slightly wider than long; anterior and posterior angles equally and strongly rounded; base truncate in the middle, apex broadly and rather

strongly arcuate; disk very convex, more so than in *spharicollis*, polished, impunctate. **Elytra** at base slightly wider than the pronotum; sides feebly divergent posteriorly, feebly sinuate near the humeri, arcuate toward the apices, distinctly shorter than the width at base; broadly and extremely feebly emarginate behind, edges very slightly divergent at the inner apical angles; suture and scutellum together distinctly longer than the pronotum; disk depressed, polished, impunctate except a row of very feeble distant punctures near the exterior edge; color paler along the base and apices. Scutellum broader than long, rather small, rugulose, angulate behind. **First** abdominal segment nearly as wide as the contiguous elytra; sides divergent and very feebly arcuate to the fifth segment which is the widest, and one-fourth wider than the first; border extremely strong, erect, almost reflexed, abruptly nearly obsolete on the sixth; surface depressed, polished, minutely reticulate, impunctate. **Legs** rather long; tarsi slender, third joint of the posterior slightly less than twice as long as the first two together, first slightly shorter than the second; claws long, feebly arcuate, appendiculate.

Male.—General sexual characters similar to those of the preceding species, the emargination of the sixth segment is, however, much broader, less strong and more transverse at the bottom.

Female.—Unknown.

Length 3.0 mm.

Fort Garland, Colorado (Schwarz).

Easily recognized by its very spherical prothorax, thick dark antennae, and strong abdominal border.

The first joint in one of the posterior tarsi exhibits signs of a transverse lobation, and gives a distinct impression of a 4-jointed tarsus, although this appearance is generally not at all observable.

4. *A. gracilicornis* n. sp.—Form rather slender. Pubescence very sparse, setiform, very long and coarse, erect, testaceous. Color of head and prothorax dark reddish-testaceous; the same color extends to the base of the elytra and along the suture, remainder of the elytra piceous; abdomen piceous-black, slightly paler and more pubescent beneath; metasternum dark piceous, remainder of the under surface pale rufo-testaceous; legs testaceous, femora much darker in the distal half; antennae testaceous toward the base, brownish-fuscous toward tip, last joint not paler. **Head** moderate; eyes very small, not prominent; sides behind them feebly convergent, broadly rounded at the posterior angles; transverse behind; interocular surface smooth, impunctate, polished, having a deeply impressed foveate puncture near the point of origin of each supra-antennal tuberculation; the latter rather strong but short; just in front of this puncture there is another very small one; epistoma broadly rounded, sides nearly parallel; antennae very long, as long as the elytra, pronotum and one-half the head together, rather slender, basal joint much elongated, all the joints much longer than wide, incrassate toward tip, second joint much shorter than the third. **Prothorax** just perceptibly narrower than the head across the eyes,

widest at the middle where it is slightly narrower than long; sides parallel and feebly arcuate; anterior and posterior angles equally and rather broadly rounded; base transverse, just visibly sinuate in the middle, apex very strongly arcuate; disk almost globular, impunctate, highly polished. **Elytra** at base distinctly wider than the prothorax; sides as in *crassicornis*; together transversely truncate behind, truncation just perceptibly sinuate near the outer apical angles; inner angles feebly rounded; suture and scutellum together distinctly longer than the prothorax; disk very depressed, without trace of punctures or reticulation, highly polished. Scutellum much broader than long, rather short, strongly granulose. **First** five abdominal segments increasing arcuately and very gradually in width, first as wide as the contiguous elytra and rapidly constricted toward the base; segments three to five almost equal in width, posterior edge of the sixth broadly sinuate dorsally; surface depressed, polished, impunctate, not reticulate; lateral border very strong but less so than in the preceding species, abruptly much more feeble on the sixth segment. **Legs** long; femora robust; tibiae distinctly arcuate; third joint of the posterior tarsi twice as long as the first two together, very slender, first joint much shorter than the second.

Male.—Sexual characters of the same nature as in the preceding species, reflexed arcuate emargination of the sixth segment very strong and more arcuate than in *crassicornis*; eighth segment less strongly impressed, laminae of seventh much less convergent behind.

Female.—Unknown.

Length 3.3 mm.

California.

Easily distinguished from *crassicornis* by its much longer and more slender antennae and less strongly developed abdominal border; from *sphaericollis* it differs in the antennae, conformation of the abdominal border, much blacker abdomen, size and structure of the pronotum which in *sphaericollis* is gradually, though very feebly narrowed posteriorly.

5. **A. brevipennis** n. sp.—Form rather slender. Pubescence sparse and fine, coarser and more herissate on the abdomen, testaceous. Color of head, prothorax, elytra and first five segments of the abdomen rather pale reddish-testaceous; abdomen and elytra slightly darker than the head, last three segments dark piceous-brown; under surface and legs yellowish-testaceous, except the metasternum which is darker; antennae pale testaceous, almost uniform throughout, terminal joint slightly paler than the penultimate. **Head** robust, depressed; eyes very small, about three times their length from the posterior angles, very slightly prominent; sides behind them nearly parallel and strongly arcuate; broadly and transversely truncate behind and rather strongly sinuate in the middle; upper surface highly polished and impunctate; supra-antennal tuberculations rather strong, much elongated, rather strongly convergent posteriorly; between them and before the middle of the disk there is a small well-marked puncture; punctures at the points of origin wanting; antennae slightly shorter than the head,

prothorax and elytra together, all the joints elongated, basal joint as long as the next two together, second shorter than the third, eleventh nearly cylindrical. **Prothorax** small, much narrower than the head, widest at the apical angles where it is distinctly broader than long; sides feebly convergent posteriorly, sinuate in the middle; anterior angles acutely rounded, posterior very broadly so; apex broadly and moderately arcuate, base truncate and just perceptibly sinuate in the middle; disk highly polished and impunctate, very convex, more so anteriorly than posteriorly. **Elytra** at base distinctly narrower than the head and slightly wider than the prothorax; sides feebly divergent posteriorly, much shorter than the width at base, evenly and feebly arcuate; together broadly, angularly and extremely feebly emarginate behind; inner apical angles not rounded, outer very acute and well-marked; suture and scutellum together equal in length to the prothorax; disk highly polished and impunctate. **Scutellum** very small, rounded behind. **Abdominal** segments increasing arcuately and gradually in width to the fourth which is very slightly wider than the fifth, first as wide as the contiguous elytra; border very strong, thin, nearly vertical, slightly less strong on the fifth, feeble on the sixth segment; surface highly polished and impunctate. **Legs** slender, uniform in color throughout; tarsi slender; claws moderately long.

Male.—Sexual modifications of the same character as in the preceding species, the edge of the emargination of the sixth segment being much less strongly reflexed, longer, more feeble in curvature, and having the emargination of the membranous portion much stronger and less transverse; seventh segment deeply impressed, with no appearance of the lateral arched laminae, the edges of the impression being in the form of rounded ridges; eighth deeply impressed, acute at tip.

Female.—Unknown.

Length 3.0 mm.

Louisiana, 1.

The above type is very distinct in all of its characters and cannot be confounded with any other species of the genus.

6. **A. analis** Lec.—Form somewhat robust. Entire body, legs and base of the antennae pale testaceous; head more reddish; last three segments of the abdomen above and beneath and the metasternum piceous. Pubescence consisting of a few widely scattered long erect setae which are more sparse on the head and pronotum. **Head** rather large, depressed, moderate in size; eyes scarcely prominent; sides behind them feebly convergent and arcuate; broadly truncate behind; posterior angles broadly rounded; upper surface highly polished and impunctate; supra-antennal tuberculations rather narrow, strong, elongated and parallel; surface between them feebly and evenly convex, having in the middle an elongated and prominent puncture; no puncture at the posterior extremities of the tuberculations; antennae but very slightly longer than the head and prothorax together, slightly infusate toward tip, basal joint scarcely as long as the next two together, second much shorter than the third which is slender and nearly twice as long as the fourth, joints rather abruptly thicker after the fourth, eleventh most robust,

obtuse at tip. **Prothorax** but slightly narrower than the head, widest at the apex where it is very slightly wider than long; sides very feebly convergent posteriorly, feebly sinuate just behind the middle; apical and basal angles nearly equally and rather broadly rounded; apex broadly and evenly arcuate, base truncate, feebly sinuate in the middle; disk rather strongly convex, very slightly more so than the head, highly polished and impunctate. **Elytra** at base as wide as the head and distinctly wider than the contiguous prothorax; sides moderately divergent posteriorly, nearly straight near the humeri, strongly arcuate near the apices, slightly shorter than the basal width; together broadly and just perceptibly emarginate behind; inner apical angles feebly rounded; suture and scutellum together nearly one-third longer than the pronotum; disk highly polished and impunctate, with a slight indication of very faint sutural striae which become stronger and widely divergent at the scutellum. Scutellum transverse, short, triangular. **Abdominal** segments increasing arcuately and rather gradually in width, first slightly wider than the contiguous elytra; border strong, nearly vertical, thin, becoming narrower posteriorly, suddenly very strongly convergent on the sixth segment; surface highly polished and impunctate. **Legs** moderate in length, slender throughout, not clouded with darker tint.

Molt.—Emargination of the sixth segment one-half as long as the edge, strong, broadly angulate at the bottom, edge scarcely reflexed except toward the ends of the emargination which are produced backward in the form of two long parallel porrected horns, the latter concave on their inner faces, the concavity extending under the emargination; the horn-like projections are membranous and very thin; the thin membrane is also broadly and roundly emarginate. Seventh segment deeply impressed in the middle, margins of the impression broadly rounded, not having thin laminae, impression extending without break and with equal intensity to the eighth segment which is acute behind.

Female.—All the segments normal.

Length 2.8–3.0 mm.

California and Arizona, 11.

The above description was taken from Dr. LeConte's type which is a female; the male differs slightly in its larger head, in the absence of the median puncture, and in the slightly shorter elytra; it also has the anterior angles of the pronotum distinctly more acutely rounded than the posterior. It also differs in the antennae, the basal joint of which is fully as long as the next two together and is much more strongly clubbed.

The very singular sexual characters of this species are different from those of any other in the genus and will identify it at once.

It will be seen that besides the characters given in the table for separating the species into two divisions according to the size of the head, shape of the pronotum, and shape of the femora, there is a fourth of perhaps more importance than any of them, viz.: the lack of the

arched laminae of the seventh segment in the males of the second division.

7. A. stilicoides Lec.—Form rather slender; castaneous, abdomen darker. Head and prothorax glabrous, strongly and minutely granulose, almost opaque; elytra and abdomen clothed rather densely with very short fine recumbent pubescence, less strongly granulose, feebly shining. **Head** robust; sides parallel and arcuate behind the eyes; posterior angles acutely rounded; upper surface longitudinally impressed near the very short and prominent antennal tuberculations, just behind which there is a very small and distinct puncture on each side: in the middle of the disk there is a very short and somewhat feeble canaliculation; epistoma strongly produced and arcuate anteriorly; antennae very short and robust, infusate toward tip, last joint short, most robust, conoidal. **Prothorax** very small, trapezoidal, widest at the apical angles; sides nearly straight; disk scarcely more convex than the head; base squarely truncate; anterior angles rounded, posterior obtuse and very slightly rounded. **Elytra** at base wider than the prothorax; sides rather strongly divergent posteriorly, sinuate near the humeri, feebly arcuate toward the apices, slightly shorter than the width at base; almost transversely truncate posteriorly; much longer than the prothorax. Scutellum very small, broadly rounded behind. **Abdominal** segments rapidly and arcuately increasing in width; border very strong. **Legs** and tarsi slender, third joint of the latter much less than twice as long as the two preceding together.

Male.—Emargination of the sixth segment very small, scarcely one-eighth as wide as the segment, feebly curvate, edge very narrowly and feebly reflexed; seventh and eighth segments scarcely modified, the former slightly flattened.

Female.—Unknown.

Length 2.0 mm.

Florida (Baldwin and Enterprise), 2.

The characters of this species differ so strikingly from those of any other, that it may after careful dissection necessitate the creation of a subgenus. The feeble sexual characters, narrow and prominently arcuate epistoma, granulate surface, and short terminal joint of the maxillary palpi are characters foreign to the remainder of the genus. These may be accompanied by others, of a structural nature in the oral organs, of more positive value.

The longitudinal elevation at the anterior portion of the pronotum is excessively feeble, and is obscurely triple, the ridges being separated by very broadly rounded feeble impressions. The elytra and abdomen are not punctulate, but obsoletely granulate. The sexual characters are not exposed to view in Dr. LeConte's type, the other specimen is a male and is the one above described.

PTILUM Erichs.

P. fungicola n. sp.—Form elongated, nearly as in *Collani*. Color above piceous-black, beneath very slightly paler; oral organs, legs and parts of the prosternum pale reddish-flavate; antennae black, basal joints paler. Pubescence rather abundant, cinereous, short. **Head** two-thirds wider than long, sub-triangular; sides distinctly sinuate at the antennae; eyes large, rather prominent; interocular surface shining, very feebly finely and evenly tuberculate; antennae slightly longer than the head and prothorax together, slender, third joint narrowest, two-thirds as long as the fourth, joints four to eight cylindrical, nearly equal, ninth slightly thicker, tenth and eleventh much more robust, slightly flattened, eleventh distinctly longer and slightly more robust than the tenth; basal joints equal, slightly elongated, dark flavo-testaceous. **Prothorax** widest very slightly behind the middle where it is slightly wider than the head, and three-fourths wider than long; sides evenly and rather strongly arcuate; apex slightly shorter than the base, both very feebly broadly and equally arcuate, the latter feebly sinuate in the middle; anterior and posterior angles rounded; disk distinctly longer than the head, rather strongly convex, evenly and rather coarsely tuberculate, tubercles round, flattened and generally distant by their own widths. Scutellum rather large, triangular, roughly asperate. **Elytra** at base very slightly narrower than the pronotum, widest at the middle where they are slightly wider than the same; sides evenly and distinctly arcuate; together somewhat abruptly and obtusely rounded behind; inner apical angles feebly rounded; disk two-fifths longer than wide, convex, apex scarcely paler, evenly strongly and coarsely asperate, having almost an imbricated appearance, very slightly more than twice as long as the pronotum. **Legs** somewhat slender, translucent; tarsi excessively slender; posterior coxae well separated. Length 0.45 mm.

Pennsylvania, near Philadelphia, 27.

Common in decaying fungi growing amongst fallen leaves in the woods. The abdomen in all the specimens which I have collected is strongly retracted, so that it comes very far from attaining even the tips of the elytra. The species appears to approximate very closely to *P. Collani* Mikl., and differs as far as I can determine without having seen specimens of that form, in its much smaller size, relatively longer prothorax, black antennae, and coarser sculpture. On comparing it with the figure of *Collani* given by Mr. Matthews, the following differences are observable:—

The elytra in the figure are nearly three times as long as the pronotum and the apex of each is more broadly rounded, especially at the inner apical angles; the pronotum appears to be nearly twice as wide as long, and its disk is seen to be much more finely and closely tuberculate.

I have selected one of the larger specimens for measurement, and many of them are scarcely more than 0.38 mm. in length.

P. truncatum n. sp.—Form short, broad; sides nearly parallel; rather depressed. Color throughout piceous-black; pubescence short, not dense, sericeous, pale fulvo-cinereous; integuments polished. Head large, twice as wide as long; anterior margin strongly arcuate between the antennae; eyes large, prominent; interocular surface broadly convex, smooth, excessively finely punctulate at the bases of the hairs; antennae distinctly longer than the head and prothorax together, strongly geniculate, black except the two basal joints which are dark piceous-brown; second joint more than twice as long as wide, cylindrical, third much more slender, shorter than the fourth, joints four to eight gradually decreasing in length and very slightly increasing in thickness, ninth distinctly thicker and longer than the eighth, joints of club increasing rapidly in length and thickness, eleventh somewhat abruptly enlarged at the base, much elongated, nearly as long as the two preceding together, somewhat pyriform. Prothorax widest just behind the middle, where it is about one-half wider than long and but very slightly wider than the head; sides moderately arcuate; apex very slightly shorter than the base, the former broadly and extremely feebly arcuate, the latter transverse and extremely feebly sinuate in the middle; posterior angles obtuse and very slightly rounded; disk moderately convex, smooth, extremely narrowly margined at the base and sides, polished; hairs growing from very minute evenly distributed and sparse punctures. Scutellum rather large, finely asperate, equilatero-triangular. Elytra at base as wide as the contiguous pronotum, widest at two-thirds the length posteriorly, where they are conjointly slightly narrower than long and as wide as the pronotum; abruptly truncate behind, outer angles rounded, inner extremely slightly so; disk moderately convex, finely evenly irregularly and somewhat closely asperate, shining, about four-fifths longer than the pronotum. Abdomen extending slightly beyond the elytra, very short in comparison with the metasternum. Legs rather robust; femora reddish-brown; tibiae and tarsi paler and more flavate; posterior coxae strongly laminate, rather widely separated; epipleurae of pronotum finely and distinctly rugulose. Length 0.6 mm.

Pennsylvania, near Philadelphia, 1.

Found in the same locality as in the preceding. It appears to resemble *P. Kunzei* slightly in form. It is as far as I can determine very distinct by reason of the large eyes, very broad head, polished integuments and more particularly in the curious structure of the antennae because of which it may have to be generically separated.

TRICHOPTERYX Kirby.

T. radicola n. sp.—Form very robust, convex. Color above black; legs, coxae, oral organs dark reddish-testaceous; antennae piceous-black, basal joints testaceous; pubescence very sparse, recumbent, short, pale piceo-cinereous. Head large, much more than twice as wide as long; sides convergent and deeply sinuate over the bases of the antennae; anterior margin truncate in the middle, rounded at the anterior angles; interocular surface evenly convex, highly polished and impunctate; eyes rather small,

not prominent, more visible from beneath than above; labrum rather large, concealed from above, strongly inflexed, wider than long, truncate at tip where it bears four or five short setae; antennae about as long as the width of head, rather slender, club moderate, basal joint longer and more robust than the second. **Prothorax** large, just visibly wider at apex than the head, four-fifths wider posteriorly, widest slightly before the base where it is about twice as wide as long; anterior margin transverse, posterior broadly emarginate, transverse and straight in the middle of the emargination, sinuate toward the posterior angles which are rather strongly produced and very acute; disk very convex, polished, very finely feebly and transversely strigose, punctate except the rather conspicuous pores for the reception of the bulbous roots of the hairs. **Scutellum** large, triangular, wider than long, asperate. **Elytra** widest in the middle where they are distinctly narrower than the pronotum; sides parallel and just visibly arcuate; conjointly abruptly truncate behind, truncation broadly arcuate; inner apical angles very slightly rounded; disk but very slightly longer than wide, about two-fifths longer than the pronotum, moderately convex, rather coarsely somewhat strongly and distantly asperate, shining. **Legs** rather short; femora robust, compressed; tarsi extremely slender; anterior coxae large, nearly globose; anterior tibia having at the tip several fine slender interior spines. **Abdomen** very short, basal joints concealed under large transverse lamellar extensions of the posterior coxae; pubescence long and fine. Length 0.8 mm.

Milford, Delaware, U.

I found this specimen running amongst the roots of grass in a dense turf. It appears to be distinct from *glabricollis*, the only described species with which it can be compared, as in that species the elytra are widest behind the middle and are shorter than the head and prothorax together, while in the present form the elytra are widest if anything before the middle and are slightly longer than the head and prothorax together; the antennae are flavate in *glabricollis* which is not the case in *radicola*. The sides of the prothorax are much less arcuate than in the figure of *glabricollis* given by Mr. Matthews, and the sides of the elytra are much more convergent posteriorly through the apical half.

The abdomen in the type is very much drawn up so that the tip scarcely attains the elytral apex, and the light shining through the lateral portions of the latter is of a pale flavate color; I do not think, however, that the tip is actually paler. The same translucency is seen in the thin posterior angles of the pronotum, which are consequently paler and fulvous.

T. funginus n. sp.—Form robust, oblong; sides parallel; rather convex. Color above piceous-black, elytra becoming rufo-piceous toward the tips which are margined with fulvous; under surface of the abdomen, legs, coxae, oral organs, and basal joints of the antennae rather dark piceo-testa-

ceous; meso- and metasterna black; remainder of antennae dark piceous-brown. Pubescence rather abundant, sericeous, cinereous. **Head** moderate, twice as wide as long; eyes moderate; interocular surface rather feebly convex, polished, impunctate except the pores for the entrance of the bulbous roots of the hairs; antennae slightly longer than the pronotum, first two joints nearly equal in length, third extremely small, scarcely one-half as long as the fourth or fifth, joints of club increasing almost uniformly and rapidly in length and width, strongly compressed. **Prothorax** widest at one-fourth its length from the base where it is four-fifths wider than long and nearly twice as wide as the head, nearly one-half wider at base than at apex; lateral edges nearly straight and strongly divergent from the apical angles for two-thirds the length, where they become abruptly very arcuate and thence convergent to the posterior angles, the latter very moderately produced, right and very slightly rounded; base transverse, broadly and just visibly emarginate along the base of the scutellum, rather strongly sinuate laterally; disk very convex, flanks slightly inflexed near the lateral edges, shining, covered with very minute asperities arranged in transverse wavy rows, interspaces minutely reticulated. Scutellum rather large, slightly wider than long, triangular, acute, sides straight, surface transversely asperate. **Elytra** at base very slightly narrower than the pronotum; sides nearly parallel and almost straight, very feebly convergent posteriorly, conjointly abruptly truncate behind, lateral angles broadly rounded, truncation straight at the inner angles; disk just visibly longer than wide, distinctly longer than the head and prothorax together, one-half longer than the pronotum, rather convex, more strongly and closely asperate than the pronotum, transverse rows only distinct near the suture, interspaces feebly rugulose and confusedly reticulate, shining. **Legs** well developed, rather long; anterior coxae large, contiguous, globose; posterior somewhat widely separated, two-thirds wider than long, very strongly arcuate behind interiorly, not attaining the elytra and leaving a large portion of the first ventral segment exposed at the sides, although extending beyond the first segment longitudinally, very thin and lamellate. Length 0.65-0.8 mm.

Jenkintown, near Philadelphia, 3.

Occurs in decaying fungus together with the two species of *Ptilium* previously described. The posterior coxae differ very greatly in form from those of *radicola* where they are obliquely truncate behind and extend with almost undiminished length from their line of mutual contiguity in the middle to the elytra at the sides, concealing the entire first ventral segment and, near the middle, portions of several others. In *funginus* the anterior coxae are larger and much more globose, and the eyes are very large and prominent beneath; from their posterior limits to the posterior limits of the buccal fissure there is a narrow strong carina.

This species appears to resemble *diffinis* Matt., but from the direct statement made by Matthews in reference to the pronotum, "ornamented with small tubercles irregularly arranged," it appears to be

distinct from it. The ornamentation of the pronotum in *funginus* does not consist of tubercles round and distinct as in *longipennis*, but rather of very minute acute asperities at the roots of the hairs, and in all my specimens these have a distinct arrangement in transverse wavy lines, more especially toward the middle of the disk.

T. longipennis n. sp.—Form rather elongated; sides parallel. Color above piceous-black throughout; legs, basal joints of the antennae, coxae, and oral organs dark piceo-rufous; remainder of antennae and under surface piceous-black; pubescence rather sparse, fine, slightly sericeous, piceo-cinereous. **Head** distinctly more than twice as wide as long, nearly transversely truncate anteriorly; surface smooth, strongly shining, minutely reticulated, excessively minutely asperate at the roots of the hairs; eyes rather large and prominent; labrum minute, very strongly inflexed, strongly rounded anteriorly; antennae nearly as long as the head and prothorax together, slender, third joint two-thirds as long as the fourth, remaining joints equally thick, club large, very strongly compressed, eighth joint shorter and wider than the seventh, last three joints abruptly much wider, nearly equal in width, rapidly increasing in length. **Prothorax** widest slightly in advance of the base, where it is about twice as wide as long; base scarcely one-third wider than the apex; sides evenly divergent, evenly and rather feebly arcuate throughout their length; posterior angles not at all produced, slightly obtuse and very slightly rounded; base and apex transverse and nearly straight; disk strongly convex, very slightly inflexed at the sides, finely rather strongly and evenly tuberculate, tubercles round, flattened, without regular arrangement, interspaces strongly rugulose, shining; finely margined along the sides; just inside the posterior angles there is a very feeble impression. **Scutellum** moderate, triangular, very slightly wider than long, finely asperate. **Elytra** just visibly narrower than the pronotum; sides parallel and nearly straight, obliquely truncate behind; exterior angles very broadly rounded, interior distinctly rounded; disk moderately convex, about one-fifth longer than wide, two-thirds longer than the pronotum, finely and feebly asperate, the points being arranged in oblique and irregular rows near the suture, also finely and strongly rugulose and reticulated, shining. **Legs** well developed; anterior coxae globose and prominent, posterior lamellate, strongly arcuate posteriorly, most strongly so near the middle of each, not attaining the elytra. Last segment of the abdomen equal in length to the three preceding together. Length 0.9 mm.

Philadelphia, Fairmount Park, 3.

Found in fungous earth under fallen leaves in a wooded ravine. It differs from *funginus* in its more elongate narrow form, in the nature of the pronotal sculpture, and very markedly in the nature of the sides and posterior angles of the pronotum; the posterior coxae are slightly longer and more regularly arcuate behind. The antennal club is so strongly compressed, that viewing it from above the antenna appears to be attenuated and without a vestige of club; laterally, however, the club is seen to be unusually strong.

In making the statement that the posterior angles of the pronotum are right or obtuse in this and other species, the angle is viewed not from above but in a line perpendicular to the plane of the angle.

CRYPTAMORPHA Woll.

C. Hubbardi n. sp.—Form nearly as in *Desjardensi*, depressed. Color of head and prothorax dark rufo-testaceous, that of the elytra paler and more flavate, the latter with a rather small oval discal spot at the scutellum, and, at the posterior two-thirds a broad transverse anteriorly arcuate and irregular band not attaining the sides, both of blackish-castaneous: under surface and legs pale rufo-testaceous: antennae at base dark rufo-testaceous, joints seven to ten dark-fuscous to piceous-black, eleventh joint paler, testaceous. Pubescence of head and prothorax excessively fine, short and sparse, almost invisible, that of elytra rather short, sub-recumbent, pale yellowish-cinereous and rather dense, arranged serially. **Head** much wider than long, squarely truncate anteriorly at the epistomal suture: eyes large, very prominent, nearly hemispherical, extremely coarsely granulated, lenses very convex and conspicuous; interocular surface nearly flat; apical angles rounded; on each side a strong very feebly sigmoid groove extends from the apical margin to a point nearly opposite the middle of the eyes: disk strongly shining, rather coarsely evenly and feebly punctate; epistoma slightly wider than long, transversely truncate anteriorly, apical angles right and not at all rounded, sides extremely feebly divergent posteriorly and nearly straight, surface feeble convex and rather abruptly declivous from the epistomal suture which is very strongly marked; labrum more than twice as wide as long, broadly and very feebly sinuate anteriorly, angles rounded, sides very feebly divergent posteriorly: antennae as long as the head and prothorax together, basal joint robust, sub-oval, nearly twice as long as wide, second much narrower, slightly longer than wide, third to sixth nearly equal in length, one-half longer than the second, sub-equal in thickness, slightly narrowed toward base, the latter very slightly wider at tip, seventh slightly shorter, distinctly broader, slightly longer than wide, truncate at base and apex, sides strongly convergent toward base and feebly sinuate toward the basal angles, eight to ten sub-equal, as wide as long, successively slightly broader at base, sides and apices as in the seventh, eleventh two-thirds longer than wide, abruptly constricted toward the tip which is produced in an oblique narrowly rounded process: last joint of the maxillary palpi slender, cylindro-conical, nearly three times as long as wide; under surface strongly and coarsely punctate. **Prothorax** as wide as the head: sides parallel and very feebly sinuate in the anterior half, then very feebly convergent and straight; apical angles rather acutely rounded: apex and base broadly equally and rather feebly arcuate: disk one-fourth longer than wide, depressed above, roundly and abruptly declivous at the sides, shining, rather densely and evenly punctate, and minutely granulose, broadly impressed just before the base. **Scutellum** transverse, rounded behind. **Elytra** at base broadly rounded, one-third wider than the pronotum: sides parallel and straight for two-thirds the length from the humeri, then

moderately convergent; disk obtusely rounded at the immediate apex, two and one-half times as long as wide, nearly twice as long as the head and prothorax together, nearly flat above, strongly declivous near the sides which are narrowly reflexed, shining, very translucent, punctato-striate; punctures round, deeply impressed, closer in the rows than the width of the intervals between the latter, with a short scutellar row; humeral angles rounded. **Legs** rather long; femora strongly swollen; tibiae slender; tarsi short, robust, slightly dilated, clothed beneath with very dense pale setae, the setae bulbous at tip; penultimate joints very strongly bilobed. **Abdominal** segments decreasing in length posteriorly, finely and sparsely punctate, minutely strigato-granulose; pro-meso- and metasterna extremely coarsely deeply and rather closely punctate, the former produced posteriorly between the coxae in a long process squarely truncate at tip and strongly narrowed toward base, with the apical angles acute and the sides bisinuate. Length 4.0-4.5 mm.

Cresecent City, Florida.

The genus *Cryptamorpha* is evidently distinct from *Psammococcus* although often confounded with it, the two genera being amply distinguished by the cylindrical terminal joint of the maxillary palpus in the former and its triangular form in the latter. The present species is very interesting, bearing a remarkable resemblance to *C. Desjardinsi* which is said to be cosmopolitan in its range, and yet differing most remarkably in the structure of the epistoma and labrum, and especially in the terminal joint of the antennae. It was found abundantly at one isolated spot in Florida by Mr. H. G. Hubbard, who informs me that it has a most deceptive resemblance to an insect of the same genus described by Braam from New Zealand. As two local species occurring in such antipodal and limited regions must almost necessarily be distinct, it gives me great pleasure to dedicate the above-described form to its discoverer.

RHIZOPHAGUS Herbst.

R. procerus n. sp.—Form elongate, rather strongly depressed; sides parallel; color piecons-black to dark brownish-testaceous, legs and antennal club slightly paler; integuments glabrous and polished. **Head** distinctly longer than wide, widest across the eyes; the latter are small, rather prominent, and finely granulated, situated at the middle of the sides which, behind them, are feebly convergent to the base and distinctly sinuate; sides of the front very slightly more strongly convergent; epistoma rather strongly produced, narrowly sinuate in the middle anteriorly, angles broadly rounded; interocular surface feebly convex, very feebly and minutely sub-granulose, finely, evenly and not strongly punctate, punctures distant by about three times their own width; mandibles short and robust, external outline semi-circular, apex very acute, inner tooth minute, near the apex; antennae much shorter than the head, first joint robust, slightly longer than wide,

oval, as long as the next two together, second small, sub-globular, third narrow, elongate, as long as the next two together, joints three to nine equal in width, club strong, slightly longer than wide, oval, very abrupt, last joint spongy, with several rings of pubescence. **Prothorax** widest at one-third its length from the apex where it is scarcely perceptibly wider than at the apex and very slightly narrower than long; sides very feebly convergent toward the apex and base, straight; apex broadly and feebly arcuate, angles obtuse and very slightly rounded; base transverse in the middle, angles broadly rounded; disk broadly convex, narrowly margined along the sides and base, finely and loosely punctate, punctures much larger and more elongate-oval in the middle portion. Scutellum small, transverse, semi-circularly rounded behind. **Elytra** at base broadly emarginate and as wide as the pronotum; sides parallel and feebly arcuate for two-thirds the length from the base, thence gradually convergent to the tip, each elytron narrowly but obtusely rounded behind; together leaving a small pubescent portion of the abdomen exposed behind them; disk striate; striae fine and feebly impressed, punctate, punctures fine, round, rather deeply impressed, and very closely placed in the series; intervals feebly convex, polished, very faintly and minutely sub-reticulate; the sutural interval alone has a row of very minute and very widely spaced punctures, and the sutural stria continues with equal depth around the apex of each elytron, being continued anteriorly as the marginal stria; humeri prominent, acutely rounded. **Abdomen** finely punctate. **Legs** short and slender; posterior tarsi very slender, last joint much longer than the preceding together; claws slender, slightly dilated at base. Length 3.2-3.6 mm.

Arizona (Morrison), 4.

The prosternum and its side pieces are strongly and almost equally punctate; the metasternum is punctate throughout, but much more finely so in the middle. The first segment of the abdomen is as long as the next three together, second slightly longer than the third, the latter as long as the fourth, fifth slightly longer than the second and third together, small additional segment very short, broadly arcuate. The species should be placed near *brunneus* Horn; the first segment of the abdomen is not smooth in the middle, as is mentioned in the description of the latter, but is uniformly and finely punctate throughout.

MONOCREPIDIUS Esch.

M. finitimus n. sp.—Form rather robust; sides parallel. Color black, narrow indefinitely clouded median pronotal vitta dark rufous, posterior pronotal processes very slightly paler, also narrowly along the lateral edges of the prothorax, under surface black except narrowly along the edge of the prothorax, more broadly behind where it includes the under surface of the prosternal processes, legs brownish-flavate, antennae slightly paler toward base, becoming dark fuscous, palpi paler; pubescence short, recumbent, fine and dense, very conspicuous, pale brownish-flavate, pubescence of abdomen

extremely dense, that of prosternum much more sparse. **Head** three-fourths wider than long; front moderately convex, apical margin very broadly rounded, narrowly sinuate at the sides before the eyes; the latter rather large and prominent; surface finely and evenly punctate, punctures round, perforate, distant by about their own widths, interspaces nearly flat, shining; antennae as long as the head and prothorax together, basal joint strongly flattened, somewhat lunate, about two-thirds longer than wide, scarcely longer than the next two together, second not one-half longer than wide, about two-thirds as long as the third, third scarcely perceptibly shorter than the fourth and distinctly longer than the fifth, outer joints slender, one-half longer than wide, narrowed almost equally toward base, eleventh very slender, finely acuminate at tip. **Prothorax** slightly wider than the medial length; sides nearly parallel and very feebly convergent in the anterior third, broadly and feebly arcuate, broadly and rather strongly sinuate along the exterior edges of the basal processes, the latter slightly projecting laterally, very strong and acute, narrowly carinate internally and above; disk very strongly convex, rather coarsely punctate, punctures deep, the larger separated by much more than their own widths, intervals flat, polished, sparsely and much more finely punctate; apex from above broadly and extremely feebly emarginate, about four-fifths as long as the width between the apices of the basal processes. **Scutellum** longer than wide, broadly rounded behind, sides straight, densely pubescent. **Elytra** as wide as the pronotum; sides parallel and extremely feebly arcuate for two-thirds the length from the base, thence gradually convergent, apex obtusely rounded; disk three-fourths longer than the head and prothorax together, much less convex than the latter, about twice as long as wide, narrowly and deeply striate; striae distantly finely and scarcely perceptibly punctate, intervals very feebly convex, densely minutely and rather evenly punctato-asperate, shining; humeral angles obsolete; each elytron acutely rounded at base, lateral portions within the processes of the pronotum feebly sinuate; striae terminating before reaching the base. **Abdominal** segments very finely and rather closely punctate, first four sub-equal in length. **Legs** rather short, pubescent; tibiae fimbriate externally along the entire edge with a double row of short equal rather distant spinules. Length 6.2 mm.

Cape May, New Jersey, 1.

The basal segments of the abdomen have a small discal impression at each side. The species is distinguishable from *auritus* by its much more robust form, more convex and shorter pronotum which is less densely punctate, and by its much more dense and conspicuous pubescence, especially of the elytra and abdomen. In coloration and structure of the scutellum the two species are entirely different.

DRASTERIUS Esch.

D. fretus n. sp.—Form very elongated, elliptical. Head black, prothorax same except the posterior angles and in their vicinity, and also a small spot near the apical angles which are pale yellowish-testaceous, elytra of the

latter color except a broad irregular transverse band at the posterior third and three small spots near the base, one on the suture behind the scutellum, and one on each elytron nearer the suture than the exterior edges and at one-third the length from the base, all of black; the posterior band does not attain the extreme margins with its full color but is very narrowly paler along the lateral edge, it is deeply emarginate anteriorly on the suture and is very strongly and narrowly produced along the suture posteriorly, becoming finely attenuated and reaching the extreme tip, but with a slight paling of the color; epipleurae very pale; under surface black except a small posterior portion of the prosternum and the apical portions of the last ventral segment which are paler; legs very pale flavate throughout; antennae pale and very uniformly rufo-flavate throughout, palpi same; pubescence short, rather sparse and coarse, pale flavate in color; integuments polished. **Head** scarcely one-half wider than long; front feebly and evenly convex throughout, very strongly coarsely and deeply punctate; punctures round, distant by scarcely more than their own widths, perforate, interspaces flat; apical margin very broadly rounded, sides feebly sinuate near the eyes; labrum coarsely and deeply punctate; antennae as long as the head and pronotum together, basal joint nearly three times as long as wide, sub-cylindrical, as long as the third and fourth together, second slightly elongated, two-thirds as long as the third which is narrowed toward base, third much shorter than the fourth and very slightly shorter than the fifth, fifth to tenth sub-equal, slightly compressed, sub-triangular, much longer than wide, symmetrical internally and externally, eleventh more than twice as long as wide, having a broadly oval terminal process. **Prothorax** having the sides almost parallel from the basal angles to one-fourth the length from the apex, very feebly arcuate and almost imperceptibly sinuate along the basal portions; apex transverse, fully five-sixths as long as the extreme width across the tips of the basal processes; the latter much longer than wide at base, very acute, narrowly and strongly carinate; basal margin broadly arcuate at the bottom of the emargination; disk medially distinctly longer than wide, very coarsely and evenly punctate; punctures rounded, very deep, perforate, distant by slightly more than their widths, interspaces flat. Scutellum longer than wide, convex, black, strongly arcuate behind, feebly so anteriorly, sides nearly straight, finely punctate. **Elytra** as wide as the pronotum; sides parallel in the basal three-fifths and feebly arcuate, thence elliptically rounding behind; immediate apex acutely rounded; disk scarcely one-half longer than the head and prothorax together and slightly more than twice as long as wide, moderately convex, feebly declivous at base, strongly striate; striae strongly and coarsely punctate, intervals flat, finely and asperately punctulate, striae abruptly terminating along an imaginary transverse line tangent to the posterior margin of the scutellum, leaving a large space at the base of each elytron without striae or punctures; humeral angles entirely obsolete; sides broadly rounding, each elytron being rather acutely rounded at base and very feebly depressed toward the scutellum. Entire under surface very strongly and coarsely punctate; posterior coxae picous black, longest at two-fifths their width from the middle. Tarsi finely and densely ciliate beneath, fourth joints rudimentarily lobed beneath. Length 4.7 mm.; width 1.4 mm.

Pennsylvania, near Philadelphia, 1.

From *amabilis* this species differs greatly in its much more dense pronotal punctuation, shorter second antennal joint, more robust form, and different coloration especially in the color of the under surface. In *fretus* the black under surface and excessively pale flavate legs form a very striking contrast.

ANTHAXIA Esch.

There are in my cabinet five species of this genus which belong to the group combined by Dr. Horn under the name *æneogaster* of Laporte and Gory. I have compared them all with the types in Dr. LeConte's cabinet, but only succeeded in identifying one form, which is *strigata* Lec.; another from California so greatly resembled Dr. LeConte's type of *inornata* that I determined the same to be that species. Recently, however, in reading the above author's original description of *inornata* it appears that the front is without short setae, and, since it is described from New York, I have concluded that it must represent a distinct species and not having a representative of it, it is not included in the following study. *Strigata* is a very distinct species in shape color and pronotal ornamentation, and it is therefore preserved. The species alluded to above as resembling *inornata* is quite distinct from *strigata*: it approaches very nearly the form figured as *æneogaster* by Laporte and Gory, and I have therefore determined to perpetuate this name by its means. The remaining three species not appearing to have been seen by Dr. LeConte or by Dr. Horn, are described as new in order to make the group complete; they cannot unfortunately be identified with any of the species allied to *strigata* described by Dr. LeConte, either from direct observation or by description.

The sexual characters in the group are strongly marked and lie not only in the differences to be observed in the sexual organs themselves, which are generally protruded and easily seen, but in the structure of the middle and posterior trochanters, these being acutely toothed behind in the males and broadly rounded posteriorly in the females.

The species are separated primarily according to the pronotal sculpture, this not being the same in any two, but in the subsequent descriptions it will be seen that there are many other points of distinction in the structure and shape of the palpi, antennae, and prosternal intercoxal process. The species can also be separated at a glance by the unaided eye from their general form. The narrow elevated lines forming the reticulation are termed retal lines and the spaces limited by them maculae.

Retal lines coalescent laterally near the median line forming transverse carinae which are abruptly bent posteriorly along the median line toward the base, so that from the former, in the basal half, the long retal lines extend outward, giving an arborescent appearance. Toward the sides of the disk the maculae are completely enclosed by the retal lines. The maculae have an interior elevated ring, and within this, a verrucate setigerous puncture, just behind the middle of the macula.....**strigata**.

Maculae distinct toward the sides of the disk, becoming smaller and confusedly broken up in the middle, without transverse lines; the maculae even when distinct do not contain an elevated ring, but the surface is rugulose with partial indications of a ring at some points; each contains an indistinct and very small verrucate setigerous puncture.

aneogaster.

Maculae usually distinctly enclosed by the retal lines at all points of the disk, but very slightly smaller in the middle; each contains an interior and usually indistinct ring, and within the ring, the usual verrucate puncture. Prothorax widest before the middle.....**nanula**.

Maculae nearly as in the preceding species except that the interior ring is smaller, stronger, and at a greater distance from the retal lines, and the maculae are more broken up near the middle. Prothorax widest behind the middle.....**simiola**.

Maculae much larger than in any of the preceding species, very distinct throughout the disk; retal lines very fine, within them scarcely any trace of an elevated ring, their surface being flat and very finely and strongly granulose. Near the middle of the disk there are two minute impressions, and toward the base, a narrow and distinct longitudinal canalication.

ænescens.

A. strigata Lec.—Tr. Am. Phil. Soc. 1859, p. 215.—Form broad; sides parallel. Color bronzed above, metallic greenish beneath; elytra obscurely punctate and very strongly and roughly asperate, also irregularly undulated throughout; pronotum distinctly more than twice as wide as long widest at or very slightly behind the middle; sides broadly areuate, feebly sinuate just behind the middle. Antennae long and slender, first two joints very feebly reticulated, second very slightly elongate, oval, very much shorter than the third, third and fourth sub-equal in length, the latter about twice as long as wide. Prosternal intercoxal process very wide, lateral terminal teeth very broad and strong, apex slightly acute; apical tooth long and slender, acuminate at tip, sides almost parallel, almost filling the cavity of the mesosternum; sides of the latter not parallel, rounding behind; maxillary palpi long and rather slender, second joint longer than the third, the latter much longer than wide, fourth much shorter than the second and third together. Length 5.5–7.0 mm.; width 2.2–2.8 mm.

California, 7.

Besides the sexual character indicated above, another very remarkable one may be mentioned beautifully displayed in the present species, viz.: the inferior genital armor in the male is not punctate but finely

reticulate, while in the female it is highly polished and strongly and sparsely punctate.

A. aneogaster L. et G.—*Mon. Anth.* p. 32.—Form rather narrow and elongate; sides parallel. Color very obscure and dull blackish-bronze above, aeneous beneath; elytra much less strongly asperate and more feebly undulated; pronotum widest far behind the middle, more than twice as wide as long; sides broadly arcuate, not at all sinuate behind the middle. Intercoxal process of the prosternum narrower, lateral terminal teeth broad and rather short, very acute at apex; apical tooth very long and conspicuous, sides nearly parallel, leaving a large cavity in the mesosternum unfilled; sides of the latter parallel. Antennae much shorter and more robust, first two joints very feebly reticulate, second nearly one-half longer than wide, much shorter than the third, the latter distinctly longer than the fourth, fourth but slightly more than one-half longer than wide; maxillary palpi long, second joint but very slightly longer than the third, the latter distinctly longer than wide, fourth joint very long and slender, nearly as long as the second and third together. Length 5.5–6.0 mm.; width 2.1–2.2 mm.

Arizona (Morrison), 4.

This species is very distinct, and, as the prothorax seems to resemble that figured for *aneogaster* by Laporte and Gory, I have chosen this name for it. The expression employed in its description "d'un noir pourpre très-foncé," seems to strengthen this conclusion.

A. nanula n. sp.—Form rather narrow; sides parallel. Color above dull bronze, beneath metallic greenish; elytra finely and very strongly asperate, rather feebly undulated; pronotum very slightly more than twice as wide as long, sides rather strongly rounded, widest a little before the middle, sides thence nearly parallel for a short distance. Prosternal intercoxal process rather wide, more coarsely reticulate, more deeply emarginate at the sides, lateral terminal teeth narrower, longer and more pronounced, very acute at apex where there is, as usual, a distinct callosity, general form of the teeth that of an equilateral triangle; apical tooth scarcely longer than the lateral, narrow, acuminate at tip, nearly filling the entire cavity of the mesosternum; the latter rounded behind as in *strigata*. Antennae long and slender, two basal joints rather strongly reticulate, second distinctly longer than wide, but slightly shorter than the third, the latter about as long as the fourth, fourth about one-third longer than wide, remaining joints more strongly serrate than in the preceding species; maxillary palpi moderate, second joint much longer than the third, the latter scarcely longer than wide, fourth rather short and robust, much shorter than the two preceding together. Length 4.2–5.0 mm.; width 1.6–1.9 mm.

California, 6.

Easily distinguished by its small size, narrow form, and pronotum widest before the middle.

A. simiola n. sp.—Form broad and depressed; sides parallel. Color above dark and obscure brownish-bronze, beneath metallic greenish; pronotum twice as wide as long, widest behind the middle, much less strongly emarginate anteriorly, sides very broadly arcuate, irregularly and coarsely sub-serrate near the middle; elytra feebly undulated, asperities much less prominent than in *nanula*. Prosternal intercoxal process very broad, feebly emarginate at the sides, lateral apical teeth very short and broad, rather obtuse at the apices which are very strongly callous; apical tooth rather short, rapidly acuminate toward tip, filling nearly the entire cavity in the mesosternum; the side-pieces of the latter very arcuate, nearly closing the cavity behind. Antennae robust, first two joints rather strongly reticulate, second slightly longer than wide, very slightly shorter than the third, third and fourth equal in length, the latter as wide as long; maxillary palpi short and robust, second joint longer than the third, the latter scarcely longer than wide, fourth scarcely perceptibly shorter than the second and third together. Length 4.8 mm.; width 2.1 mm.

California, 1.

Distinguished from *nanula* by its much broader and more depressed form and by the shape of the pronotum.

A. aenescens n. sp.—Form moderately broad; sides parallel. Color above bright bronze, beneath obscure aeneous; pronotum distinctly more than twice as wide as long, sides broadly arcuate, distinctly sinuate for a short distance immediately behind the middle; elytra much smoother and less asperate or undulate than in the preceding species, the fine deep sparse punctures being very distinct and the interspaces moderately convex, finely and strongly granulate. Lateral terminal teeth of the prosternal process slightly wider than long, acute at tip; terminal tooth small, narrow, nearly entirely filling the cavity of the mesosternum, the latter almost closed behind; maxillary palpi very short and robust, third joint scarcely as long as wide. Antennae having a cupreous lustre, first two joints strongly reticulate, second nearly globular, very slightly shorter than the third, third and fourth equal in length, the latter but very slightly longer than wide. Length 4.8 mm.; width 2.0 mm.

California, 1.

This species is distinguishable at a glance by its smooth surface, brilliant bronzed color, and very large reticulations of the pronotum with comparatively feeble retal lines.

LYCTUS Fabr.

L. parvulus n. sp.—Form slender, convex; sides parallel. Color throughout black, legs and abdomen dark picco-fuscous, apical margins of the segments narrowly pale testaceous; pubescence rather short, coarse and sparse, pale fulvous, arranged serially on the elytra; sculpture of head and prothorax scabrous, cellular, the intervals being a fine network of narrow raised lines. **Head** small, much wider than long; eyes large, very convex;

interocular surface moderately convex, declivous toward the epistomal suture which is transverse and very strongly marked, terminating laterally at the supra-antennal tuberculations which are very strong; epistoma short, four times as wide as long, strongly sinuate anteriorly; labrum very short, strongly sinuate; antennae much longer than the width of head, slender, two basal joints moderately robust, slightly elongate, equal in length, third much longer than the fourth, fourth and fifth sub-equal, seventh longer than the sixth or eighth, the former longer than the latter, ninth equal to the seventh, last two joints more robust, compressed, equal in length, the tenth triangular, the eleventh conoidal, both as wide as long; last joint of the maxillary palpi twice as long as the third, moderately slender, acuminate. **Prothorax** widest at one-third the length from the apex where it is one-half wider than the head and about as wide as long; sides strongly arcuate anteriorly, strongly convergent and straight posteriorly; basal angles obtuse, not rounded, base one-third longer than the apex, arcuate except near the basal angles; apex very feebly arcuate; apical angles obsolete from above; disk moderately convex, scarcely impressed along the middle except near the base where there is a very narrow short canalication. **Elytra** at base about as wide as the pronotum; sides parallel and straight for five-sixths the length from the base, then obtusely rounding behind; humeral angles narrowly rounded; disk sub-cylindrically convex, nearly twice as long as the head and prothorax together, two and one-third times as long as wide, shining, strongly and rather closely punctate; punctures elongated longitudinally and arranged serially; near the suture they are smaller and more confused. **Scutellum** minute, wider than long, tuberculiform. **Abdominal** segments moderately convex, decreasing almost uniformly in length, finely and strongly granulo-rugulose, more coarsely so toward base, very sparsely pubescent. **Legs** short and slender; first joint of the posterior tarsi very minute, last equal in length to the first four together; anterior coxae mutually one-fourth as distant as either from the anterior margin of the prosternum. Length 2.8-3.2 mm.

Arizona (Morrison), 2.

Differs very greatly from *planicollis* Lec. in size, shape of the pronotum and sculpture, especially that of the under surface of the abdomen, this being much coarser in *parvulus*. In both these species the outer apical angles of the anterior tibiae are slightly prolonged; in *Trogoxylon*, however, they are not prolonged, but merely very acute.

SERICA MacLeay.

S. parallela n. sp.—Form sub-cylindrical; sides parallel; color pale yellowish-terruginous, legs and under surface slightly paler, concolorous; integuments opaque throughout, not iridescent. **Head** one-half wider than long; occiput very finely sparsely and feebly punctate; clypeus strongly rather finely and not rugulose punctate; epistomal suture very fine, clearly defined, roundly angulate posteriorly, anterior margin sinuate in the middle and reflexed; eyes very large, convex; last joint of the maxillary palpi three times as long as wide, slightly clavate, rather obtusely acuminate at

tip; third joint of the antennae very slightly longer than the fourth, club slightly longer than the remainder; there are near the eye on the upper surface several short setae which sometimes extend in a curved line across the head along the clypeal suture, and there are also a few scattered setae on the disk of the clypeus. **Prothorax** from above about twice as wide as long; sides very slightly convergent from base to apex, and rather evenly and distinctly arcuate; apex about two-thirds as long as the base, transversely and strongly emarginate, angles acute; base broadly areolate, feebly sinuate at each side of the middle, angles slightly obtuse and rather strongly rounded; disk glabrous, moderately convex, finely and rather feebly punctate; punctures distant by from two to three times their own widths; lateral margins very narrowly reflexed and having a row of a few long erect setae. **Scutellum** very flat, much longer than wide, sparsely punctate. **Elytra** across the humeri slightly wider than the pronotum; sides parallel and nearly straight; together very abruptly and obtusely rounded behind; disk two-thirds longer than wide and three times as long as the pronotum, convex, glabrous; longitudinal costae fine, not punctate, rather feeble, intervals narrower, feebly impressed, finely and irregularly punctate; epipleurae having a row of rather closely placed erect setae. Under surface opaque, finely and feebly punctate, nearly glabrous except on the coxae and last ventral segment where there is a rather long line and somewhat conspicuous pubescence. **Legs** slender, long slender posterior tibial spurs but slightly unequal in length; posterior tarsi very long and slender, each joint having throughout its length beneath two acute unequal carinae, the larger one being finely granulose; first joint slightly longer than the second; claws rather long, deeply cleft at tip, terminal portion strongly bent, inner tooth robust, having the tip acute and very oblique. Length 8.0-9.0 mm.; width 4.3-4.7 mm.

Atlantic City, New Jersey, 2.

This species can be distinguished from *sericea* by its smaller size, much paler color, and very large prominent eyes, and also by the shape of the posterior tarsal claw which is slightly shorter, more robust, and with the apical portion finer and prolonged further beyond the inner in *sericea*. The surface when viewed perpendicularly is not iridescent, but a slight amount may be observed when it is viewed very obliquely. The large eyes referred to above is apparently not a sexual character, as the sexes may be very readily separated by the longer or shorter antennal club, and there is then seen to be no very marked difference in the size of the eye. It may prove a constant character for grouping apart some of the species in this difficult genus, as there is another species represented in my cabinet allied to *tristis* but having much larger eyes.

S. porcula n. sp.—About twice as long as wide, sub-cylindrical, dark reddish-brown, legs and under surface slightly paler; shining throughout, not iridescent; glabrous above. **Head** but slightly wider than long; occiput rather sparsely finely and irregularly punctate; clypeus very densely and

confluently so, the latter two-thirds wider than long, sides rather strongly convergent anteriorly and strongly arcuate, apical margin strongly sinuate, edges reflexed, scarcely more strongly so anteriorly than along the sides; eyes small, not prominent; last joint of the maxillary palpi equal in length to the first three together; third joint of the antennae scarcely more than two-thirds as long as the fourth, fifth twice as long as the sixth, conical, irregularly hopper-shaped. **Prothorax** twice as wide as long; sides slightly convergent from base to apex and moderately arcuate, straight toward the basal angles which are narrowly rounded; apex slightly more than two-thirds as long as the base, broadly and not strongly emarginate, bottom of the emargination broadly arcuate; base broadly arcuate, very feebly sinuate at each side of the middle; disk moderately convex, polished, finely and somewhat irregularly punctate, narrowly impunctate along the middle toward the base, punctures smaller and more distant in the middle. **Scutellum** as wide as long, triangular, acutely rounded at tip, punctate except broadly along the middle. **Elytra** at base as wide as the pronotum, widest at two-thirds the length from the base; sides very feebly arcuate; together abruptly and very obtusely rounded behind; disk convex, very slightly more than one-half longer than wide, about three times as long as the pronotum; longitudinal costae very feeble, broadly convex, impunctate, polished, intervals much narrower, finely and very irregularly punctate; punctures round, rather feebly impressed. Under surface somewhat finely, sparsely, and irregularly punctate throughout; legs slender; first joint of the posterior tarsi very slightly longer than the second; claws long and slender, deeply and very narrowly cleft at tip, teeth of about equal length, the outer very fine and acute, straight near the tip, the inner robust, obliquely acuminate at tip. Length 7.0 mm.

Arizona (Morrison), 2.

The usual rows of setae along the lateral edges of the pronotum and elytra are present. The relative length of the third antennal joint may suffice to create a division in the genus.

DIPLLOTAXIS Kirby.

D. levicula n. sp.—Form moderately robust. Color throughout dark reddish-brown, tarsi very slightly paler; dorsal surface glabrous, moderately shining, under surface having a few widely scattered erect robust setae which are very short. **Head** four-fifths wider than long; occiput broadly convex, coarsely and confusedly punctate, punctures somewhat transversely coalescent, scabrous and not very deep; clypeal suture transverse in the middle, bent posteriorly at the sides to the eyes, rather well marked; clypeus very densely and coarsely punctate throughout, transversely truncate and very feebly sinuous anteriorly, bent rather abruptly posteriorly at the sides to the eyes just before which the margin is slightly sinuous, margin somewhat strongly reflexed throughout from eye to eye; labrum six times as wide as its median length, broadly and somewhat strongly sinuous anteriorly; disk having a strongly elevated transverse ridge; last joint of the maxillary palpi slender, fusiform, as long as the two preceding together; antennae pale

testaceous throughout, very short, not as long as the head, club scarcely as long as the first two joints together, second joint not one-half as long as the first. **Prothorax** widest at two-fifths the length from the base where it is distinctly more than twice as wide as long; sides almost equally convergent anteriorly and posteriorly and very feebly arcuate; apex distinctly shorter than the base, broadly emarginate; base broadly arcuate, very feebly sinuate toward each basal angle, the latter very obtuse and very slightly rounded; disk rather convex, finely and closely punctate; punctures round, shallow and variolate, separated by two to three times their own widths. **Scutellum** small, ogival, as long as wide. **Elytra** at base very slightly narrower than the pronotum, widest at two-thirds the length from the apex where they are but very slightly wider; sides very feebly arcuate; disk abruptly and very broadly rounded behind, slightly less than one-half longer than wide and about three times as long as the pronotum, very minutely granulo-reticulate, punctate; punctures impressed, rather large, arranged in rows, the sutural row being composed of smaller punctures much more closely placed; between this and the next regular row there is a wide area of larger punctures irregularly disposed; along the middle of the epipleurae there is a row of stout erect setae. **Legs** rather long and slender; tarsi very slender, first joint of the posterior equal in length to the second, more robust and strongly clavate, third very slightly shorter, fifth about one-fourth longer than the first; claws very strongly compressed, strongly toothed, tooth slightly shorter and more robust than the apical portion; posterior tibial spurs equal in width, slender, very unequal in length. **Abdominal** segments impunctate except a close and somewhat irregular row of very large setigerous punctures arranged transversely along the middle of each, those of the last segment being scattered over nearly the entire disk; pygidium small, semi-circularly rounded throughout beneath, disk very coarsely punctate, punctures very shallow and variolate, surface irregularly undulated, upper margin entirely exposed by the elytra. Length 7.5 mm.; width 4.0 mm.

Arizona (Morrison), 1.

D. popino n. sp.—Form moderately slender. Color throughout rather dark brownish-red, head slightly darker, tarsi slightly paler than the tibiae; dorsal surface moderately shining, rather sparsely but distinctly clothed with long erect rather coarse setae which are slightly longer, but scarcely more dense, beneath. **Head** about one-third wider than long, moderately convex, coarsely and very densely punctate; punctures somewhat transversely coalescent on the front, rugulose or scabrous; clypeal suture narrow and well-defined, transverse, bent slightly posteriorly near the eyes and feebly sinuate for a short distance in the middle; clypeus strongly transverse, apical margin broadly emarginate through three-fifths of its width, sides very widely divergent to the eyes, forming at the sides of the emargination two short rounded teeth, margin strongly reflexed throughout, most broadly so at the apical projections; labrum bilobed, very transverse, having a transverse discal ridge, apical margin very deeply and narrowly sinuate; last joint of the maxillary palpi somewhat innate, elongate, nearly as long as the two preceding together, the latter equal in length; antennae short, first joint

much more than twice as long as the second, club fully as long as the first two joints together. **Prothorax** widest at two-fifths its length from the base where it is slightly more than twice as wide as long; sides almost equally convergent anteriorly and posteriorly, very feebly sinuate in the former, straight in the latter sense; apex slightly shorter than the base, broadly and feebly emarginate; base broadly arcuate; apical angles acute and not at all rounded, posterior obtuse and very slightly rounded; disk moderately convex, very coarsely and somewhat irregularly punctate, punctures deeply impressed and generally separated by two to three times their own widths. **Scutellum** small, scarcely longer than wide, narrowly rounded behind. **Elytra** at base as wide as the pronotum, widest at two-thirds the length from the base where they are nearly one-fourth wider; sides straight; disk abruptly and very broadly rounded behind, scarcely more than one-third longer than wide, convex, very coarsely and deeply punctate; punctures round, deeply impressed, arranged in widely distant double or triple rows, the intervals being irregularly punctate; between the clearly defined sutural row and the suture there is a row of more widely distant punctures. **Abdomen** rather finely sparsely and evenly punctate throughout; pygidium entirely exposed, slightly wider than long, parabolically rounded beneath, surface coarsely and rather closely punctate, fringed beneath with a dense line of short yellowish setae. **Legs** rather long and slender; tibiae having a cluster of teeth just beyond the middle exteriorly; first and second joints of the posterior tarsi equal in length, the former much more robust and clavate; claws strongly compressed, wide, sides nearly parallel, cleft at tip, notch slightly more than one-fourth as long as the claw, inner tooth much more robust than the outer. In the male the outer tooth is longer and more slender. Length 8.5-9.5 mm.; width 4.0-5.0 mm.

Arizona (Morrison), 2.

This species should apparently be placed in a distinct subgenus together with LeConte's *puberulus* from the same region, not only on account of the claws rather cleft at tip than properly toothed, and the hairy vestiture, but more especially because of the prominent anterior angles of the clypeus, and the deeply sinuate or bilobed labrum.

ANOMALA Sam.

In looking over Dr. Horn's revision of the American species of this genus, I find that this author combines *luteipennis* Lec. and *bi-notata* Gyll. As I have very good sets of each of these forms before me I feel prepared to maintain their specific distinctness. They differ in the following characters, which are independent of sex:—

In *luteipennis* the form of the body is more robust and the pronotum is proportionally much wider, the sculpture of the head and pronotum is coarser while that of the elytra is finer, the last joint of the maxillary palpi is very noticeably shorter and stouter, and the last joint of

the posterior tarsi when compared with the first two combined is much longer and more slender than in *binotata*. In addition we have many minor differences, for example the color and elytral maculations which are very different, and also the sparser pubescence of the under surface in *binotata*, and the more convex occiput in *luteipennis*.

STRIGODERMA Burm.

S. pimalis n. sp.—Rather depressed; sides nearly parallel. Color very variable, median portions of the sterna usually darker, black to pale testaceous-brown, always strongly opalescent with metallic green or red which is more evident in the dark specimens; elytra glabrous, pronotum clothed sparsely with long fine pubescence; under surface sparsely and more coarsely pubescent, more coarsely and very sparsely so on the abdomen; integuments polished. **Head** very slightly longer than wide; interocular surface moderately convex, very coarsely deeply and closely sculptured, with very short impressed and vermiculate channels except along the base of the occiput where the punctures are isolated; first two joints of the antennae fuscous, the remainder dark piceous, club shorter than the remainder; last joint of the maxillary palpi much longer than the three preceding together, robust, sub-cylindrical, obtusely acuminate at tip; sides of the mentum narrowly and deeply emarginate. **Prothorax** slightly wider than long; sides almost evenly arcuate, slightly more strongly so anteriorly; basal angles broadly rounded, apical acute and scarcely rounded; apex about two-thirds as long as the base, the former broadly emarginate, the latter strongly arcuate in the middle, very feebly sinuate toward the basal angles; disk moderately convex, narrowly margined throughout its circumference, sparsely and rather coarsely punctate, the punctures becoming larger and more coalescent toward the sides; having at each side near the apical angles an oblique canaliculate impression, and, just before the middle, a rounded punctiform impression, just behind which there is another broadly impressed oblique impression parallel to the one at the anterior angles, the two posterior often coalescent; median canaliculation broadly impressed nearer the apex than the base, not attaining either. **Scutellum** very slightly wider than long, sparsely and finely punctate. **Elytra** nearly one-half wider than the pronotum; sides parallel and very slightly arcuate; humeral protuberances prominent, elongated posteriorly; each elytron evenly rounded behind; disk depressed, deeply striate; striae coarsely foveolate, punctures very shallow and in close contact; intervals very slightly wider than the striae, in the form of very convex ridges; disk two-fifths longer than wide and four-fifths longer than the head and pronotum together. **Pygidium** strongly rugulose; ridges transverse. Larger claw of anterior and middle tarsi cleft at tip. Length 11.0 mm.

Arizona, 5.

This species, until now confounded with *arboricola*, I find to differ in many characters irrespective of color and shape. In *pimalis* the two teeth formed by the cleft at the tip of the middle tarsal claws are

equal in length, while in *arboricola* they are very unequal in length and much more unequal in thickness. Perhaps the most decisive point of difference is in the sexual characters; the first and sometimes also the second ventral segments in the males of *arboricola* are ornamented with a transverse series of broad deeply impressed longitudinal canaliculations, while in the males of *pimalis* there is no trace of this formation, but a mere trace of two very narrow exceedingly feeble distant and partial longitudinal impressions. There is also a decided difference in the nature of the abdominal pubescence, this being much more abundant and finer in *arboricola*. In color and form the two species differ very greatly, *pimalis* being relatively longer and narrower, with the sides much less arcuate. They also differ greatly in the sculpture of the scutellum.

DISONYCHA Chev.

D. procera n. sp.—Form elongate narrow; sides parallel. Color of head black, with a diffused band of fuscous between the antennae, pronotum pale reddish, with narrow paler flavate margins, elytra having a broad sutural vitta, a very broad discal one which does not attain the apex, and a broad lateral vitta not attaining the reflexed side margins and not attaining the apical angles, all of black, remaining portions bright yellowish-white, and so narrow as to give the appearance of black elytra with narrow silvery vittae; under surface black, except the prosternum and its side pieces which are pale flavo-testaceous, and the last ventral segment which is fuscous, the remaining segments also have at each side a small diffused patch of dark fuscous; femora dark rufous, tibiae and tarsi black, antennae intense black throughout; upper surface glabrous, polished, under surface covered somewhat densely with very short fine and inconspicuous pubescence; elytral epipleurae black, outer edge pale flavate. **Head** slightly wider than long, median portions impunctate; occiput having a very small median impression, between which and each eye, there is a large irregular impression containing three or four large punctures, also in the middle of the front between the middle points of the eyes, a small deep impression with four short radiating canaliculations, and between this and each eye a few small scattered punctures; labrum much wider than long, strongly sinuate anteriorly; antennae one-half as long as the body, covered densely with very fine short pale pubescence, second joint longer than wide, oval, one-half as long as the third, the latter three-fourths as long as the fourth. **Prothorax** distinctly more than twice as wide as long; sides feebly convergent anteriorly, feebly arcuate; anterior angles slightly thickened, rounded; apex transverse, feebly indented near each apical angle; base broadly arcuate, broadly and feebly trisinnate, basal angles narrowly rounded, each bearing an erect seta; disk broadly convex, almost impunctate, very minutely and feebly reticulate, transparent, not maculate except a vague longitudinal median spot. **Elytra** at base as wide as the pronotum, widest at two-thirds

the length from the base where they are but very slightly wider; sides nearly straight; apical angles obtuse and slightly rounded; disk abruptly and obtusely rounded behind, rather broadly convex nearly twice as long as wide, and more than five times as long as the pronotum, feebly and sparsely punctulate and very minutely sub-granulate, polished; each elytron has in the median black vitta, beginning at one-fifth the length from the base and terminating at one-fourth the length from the apex, two long narrow ridges with an intervening canaliculation; lateral margins narrowly reflexed. **Legs** robust; posterior femora very robust, strongly compressed; tibiae finely and densely pubescent; first joint of the posterior tarsi but slightly shorter than the remainder combined. **Abdominal** segments very finely and densely ruguloso-punctulate. Prosternal intercoxal process slightly dilated and depressed at tip, pubescent. Length 6.8 mm.; width 3.0 mm.

Milford, Delaware, 1.

The coarse granulation of the under surface of the elytra shining through the transparent substance of the latter, gives to the narrow pale vittae a most beautiful appearance when examined with sufficient power; these vittae are of a pure silvery white when the insect is living, but subsequently turn to a yellowish color. The species is one of the most distinct, and, according to Mr. Crotch's table of this genus, should apparently follow *alternata* in the catalogue.

BRUCHUS Linn.

B. cubiculus n. sp.—Form slightly elongate. Head and entire under surface black; pronotum black except a large spot near the basal angles and a smaller one near the apical angles which are obscure rufous; elytra mottled with black and rufous, the most prominent black spots being a small humeral, a broad medial one not attaining the suture, and a much larger and irregular apical spot; pubescence very sparse, cinereous. **Head** strongly deflexed, much longer than wide, abruptly constricted behind the eyes into a rather long neck, entire surface finely and strongly ruguloso-punctulate; interocular surface abruptly slightly below the surface of the eyes, much narrower than the latter, having a broadly obtuse but very distinct longitudinal carina; eyes coarsely granulated, large, lenses very convex; antennae shorter than the head and prothorax together, first four joints fuscous and slender, remainder strongly compressed, black, with the joints strongly serrate externally, becoming much more strongly so toward tip and also wider, very compact, terminal joint resting obliquely along the tooth of the preceding joint, pubescence very fine and short, cinereous, second joint oval, slightly longer than wide, much shorter and more robust than the third, third slightly longer and less robust than the fourth. **Prothorax** widest at base where it is about one-half wider than long; sides strongly convergent anteriorly and very feebly arcuate; apex less than one-half as wide as the base, broadly and very feebly arcuate; base strongly arcuate, feebly sinuate at each side of the middle with the intermediate edge at the middle very broadly arcuate, almost truncate, also more strongly

sinuate near each basal angle, the two lateral sinuations being separated by a very broad and feeble tooth; disk strongly convex, not elevated along the middle, strongly ruguloso-punctulate, having at the base a short and strong medial canalliculation, also feebly impressed at the base on each side of the middle. Scutellum wider than long, transversely sub-oval, not densely pubescent. Elytra at base very slightly wider than the pronotum; sides parallel and very feebly arcuate; each elytron broadly rounded behind; disk distinctly longer than wide, not impressed along the suture, moderately convex; striae strong and impressed, scarcely punctate; intervals nearly flat, strongly ruguloso-reticulate, shining; humeri very prominent. Pygidium very large, much longer than wide, triangular, sides all broadly arcuate, disk strongly and coarsely ruguloso-punctulate, black, rufous along the base, sparsely pubescent, more densely so at the base near the elytra, apex narrowly rounded. Ventral segments abruptly and broadly rufous at the sides near the elytra, the rufous color extending on the last segment throughout its extent, remainder black. Femora not dentate; posterior tibiae having two large strong and unequal terminal teeth and also several very minute ones; first joint of the posterior tarsi cylindrical distinctly arcuate more than three-fourths longer than the remainder, second much longer than the third. Length 1.5 mm.

Arizona (Morrison), 1.

Much smaller than *impiger* Horn, after which it should be placed in the catalogue; the shape of the pronotum is very different in the two species.

In this connection it should be stated that there are two species of *Bruchus* which may be easily confounded, viz., *hibisci* Oliv. and *alboscutellatus* Horn. I have identified a series in my cabinet as the last-named species, although they were taken in Pennsylvania and Delaware and vary in size from 1.7 to 2.2 mm. Dr. Horn gives the locality as Georgia, Louisiana and Missouri, and, as he states the length to be 2.5 mm., the species is seen to have a great range of variation in length as well as an extended distribution. The scutellum is smaller than that of *hibisci* and the form of body more slender; the posterior femora has a large tooth and between it and the tip two minute denticles almost equidistant from each other and the large tooth, and also near the latter and toward the base of the femur a second smaller and much shorter tooth.

EPITRAGUS Latr.

E. ovalis n. sp.—Form moderately robust, oval, rather strongly convex; head and pronotum black, elytra dark rufous, under surface dark picaceous-brown, legs and antennae not paler; pubescence of upper surface very short and rather dense, bright fulvous, less conspicuous on the elytra; integuments sub-opaque. Head as long as wide; sides from the posterior limits of

the eyes straight and rapidly convergent anteriorly: supra-antennal ridges flat above, transverse anteriorly and disappearing in the general surface of the clypeus which is declivous anteriorly, produced, and very strongly rounded at the apex, almost angulate: eyes flat, rather large, having just within each on the front a very fine carina: interocular surface feebly convex, broadly impressed on each side within the antennal ridges, very deeply densely, and slightly unevenly punctate, punctures round, rather more sparse along the middle, and much smaller on the epistoma: labrum transverse, feebly sinuate anteriorly: antennae slightly shorter than the pronotum, outer joints strongly compressed, second joint nearly two-thirds as long as the third, three to five decreasing in length, seven to ten slightly produced outwardly at apex. **Prothorax** widest at the base where it is about two-fifths wider than long; sides very feebly arcuate, straight in the posterior half: apex broadly emarginate, about three-fourths as long as the base, angles acute; base strongly arcuate in the middle, sinuate in the middle of each side, and thence straight and transverse to the basal angles which are right and not at all rounded: disk strongly convex, densely finely and coalescently punctate, punctures round, deep and somewhat scabrous toward the sides, interspaces very minutely granulose. **Elytra** at base very slightly wider than the pronotum, widest in the middle where they are about one-half wider than the pronotum: sides rather strongly arcuate, strongly convergent and nearly straight to the apex which, conjointly, is somewhat obtuse but scarcely rounded: disk from above two and one-half times as long as the pronotum, convex, strongly declivous toward the apex, finely feebly and rather densely punctate, punctures almost uniformly distributed; striate, striae scarcely perceptibly impressed and very slightly more densely punctate, darker in color; surface also confusedly creased. Under surface finely punctate, the metasternum sparsely and more coarsely so, the abdomen very densely; prosternum and its side-pieces equally strongly and confusedly ruguloso-punctate. **Legs** slender: anterior tibiae slightly prolonged externally at tip, terminal spurs almost exactly equal, long and stout: first joint of the corresponding tarsi slightly longer than the next two together: first joint of the posterior much longer than the next two together and very slightly shorter than the last; claws very long and slender, perfectly simple. Length 9.5 mm.; width 4.2 mm.

Texas, 5.

The description is taken from the female. There is a very narrow median space toward the base which is very sparsely punctate, but which is scarcely noticeable; the anterior angles are acute but not produced, and the surface is very evenly convex throughout; in the male the punctuation is less dense. I cannot identify it with any of the species described in the *Biologia Cent.-Amer.*

BLAPSTINUS Latr.

B. pimalis n. sp.—Form rather slender, moderately convex. Color black above, piceous-black beneath, legs slightly paler, dark fuscous, au-

tennae scarcely paler except toward base where they are slightly piceous; pubescence above rather fine, short and sparse, recumbent, dark fulvous, more conspicuous beneath, cinereous. **Head** distinctly wider than long; anterior angles very broadly rounded; apical margin narrowly and feebly sinuate; eyes small; surface feebly convex, rather coarsely densely deeply and slightly confusedly punctate, punctures slightly elongate; antennae as long as the pronotum, rather slender, slightly geniculate, outer joints distinctly compressed, second one-half as long as the third and three-fourths as long as the fourth, about as long as wide, seventh sub-globular, eighth slightly wider than long, ninth still wider, ninth and tenth equal in width, eleventh slightly narrower, conoidal, very slightly longer than wide, joints four to nine sub-equal in length; labrum very short and transverse, rather deeply sinuate anteriorly. **Prothorax** widest at the middle where it is about one-half wider than long; sides evenly and feebly arcuate; apex slightly shorter than the base, broadly and feebly emarginate, angles from above right and slightly rounded; base broadly arcuate in the middle, distinctly sinuate near the basal angles which are right and very slightly rounded; disk broadly convex, narrowly and acutely margined at the sides and along the base, coarsely deeply very densely and nearly evenly punctate; punctures perforate, elongated, interspaces nearly flat, very minutely granulo-reticulate. **Elytra** at base as wide as the pronotum, slightly wider at two-thirds the length from the base; together thence gradually and acutely rounded behind; sides very feebly arcuate anteriorly; disk about twice as long as the head and prothorax together, coarsely striate; striae feebly impressed, punctate; punctures round, rather fine, feebly impressed, distant in the rows by nearly twice their widths, intervals feebly convex, finely and feebly ruguloso-punctulate, moderately shining. Under surface finely and sparsely punctate; prosternum deeply and very densely punctate, scabrous, side-pieces very densely and longitudinally rugulose; first three ventral segments decreasing very gradually in length, fourth shorter; sutures between the last three segments very deeply impressed. **Legs** rather slender; first joint of the posterior tarsi longer than the next two together. Length 4.7-5.0 mm.

Arizona (Morrison), 5.

The pubescence of the elytra is rather coarser and more conspicuous than that of the head and pronotum. In general form this species resembles *pulverulentus* Mann., being only a little shorter and more robust; it differs from that species in its rougher and more dense sculpture and especially in the form of the pronotal punctures, which are circular in *pulverulentus*, and in its very much deeper and denser rugulosity of the prosternal side-pieces; it should probably follow that species in the catalogue.

MORDELLA Linn.

M. deserta n. sp.—Form rather robust; sides nearly parallel. Pubescence very coarse, close, recumbent and sericeous, setiform, very pale fulvo-

cinereous on the flanks of the head and pronotum, piceous on the middle portions of the disk, also fulvo-cinereous in two broad lateral vittae extending from the humeri of the elytra to the apex and slightly increasing in width through the basal third, also on the scutellum and very narrowly along the suture; on the remainder of the elytral surface dark piceous-brown by reflected light, dark reddish-purple by transmitted light; integuments uniformly piceous-black, very finely feebly and closely punctate, much more finely so on the prothorax than on the elytra. **Head** slightly wider than long; interocular surface broadly and very evenly convex throughout; eyes continuous in curvature with it and somewhat large, rather finely granulated; anterior margin of the epistoma narrow and very feebly arcuate, slightly less than one-half as long as the distance between the eyes; last joint of the maxillary palpi more than twice as long as wide, so obliquely truncate as to be scalene in outline, truncated edge very broadly arcuate; antennae short, scarcely longer than the width of head, first and second joints nearly equal in length, shorter than the third, first four joints sub-cylindrical, five to ten decreasing in length, narrowed toward base, trapezoidal, the former slightly longer than wide, the latter distinctly transverse, eleventh longer than wide, oval in outline, obtusely rounded at tip, joints five to eleven strongly flattened. **Prothorax** one-third wider than long, rather strongly and evenly convex; sides feebly and evenly arcuate; apex very slightly shorter than the base, broadly and somewhat angularly arcuate, the latter strongly and abruptly arcuate through the middle third. Scutellum slightly wider than long, evenly and acutely rounded behind, sides feebly arcuate, surface flat, finely and asperately punctate. **Elytra** at base just visibly narrower than the pronotum; sides parallel and nearly straight for three-fourths the length from the humeri, thence rather obtusely rounded behind, each elytron evenly and rather acutely rounded at apex; disk conjointly very slightly more than twice as long as wide. **Legs** and under surface of the body black, with fine fulvo-cinereous pubescence; posterior tarsi longer than the femora, first joint much longer than the next two together, slightly shorter than the tibiae; tibiae and first three tarsal joints densely fimbriate at tip with short stout equal spinules; claws feebly arcuate, not at all cleft nor pectinate, but having on the inner edge two or three very minute tuberculiform denticulations; spurs of posterior tibiae rather long, very stout, acute, straight and very unequal. Length from tip of anal style 4.5 mm.; width of pronotum 1.7 mm.

Arizona, I.

According to the table given by Mr. J. B. Smith, this species would enter the first of his groups in the second division of *Mordella*, and I see nothing there which will at all fit the above description.

XYLOPHILUS Latr.

X. densus n. sp.—Form elongate, rather slender, sub-cylindrical, intense black throughout, antennae piceous, last joint pale testaceous, femora piceous, tibiae and tarsi paler, dark testaceous; pubescence very fine, short.

sub-recumbent, plumbeous, rather dense but not at all conspicuous, uniform in color throughout, much more sparse beneath; integuments shining. **Head** moderate much wider than long; base broadly and roundly emarginate throughout; basal angles slightly prominent, narrowly rounded; eyes very large, coarsely granulated, glabrous, at less than one-third their length from the tips of the basal angles, inner edges feebly sigmoid, strongly convergent anteriorly; interocular surface finely strongly and evenly punctate, punctures round, perforate, distant by about twice their own widths, interspaces feebly sub-granulose, flat; antennae rather distant at base, robust, one-third longer than the width of head; excavations deep, narrowly margined, entering the eye as a rather feeble emargination; first joint moderately robust, slightly elongate, oval, second very slightly narrower, sub-globular, third slightly narrower, much elongated, about as long as the next two together, four to six slightly wider, quadrate, seven to eleven abruptly wider, increasing slightly in width, forming a five-jointed club, seventh very slightly wider than long, tenth one-half wider than long, eleventh conoidal, moderately elongate; last joint of the maxillary palpi nearly twice as wide as long, transversely truncate and spongy at the apex, triangular, convex outwardly, slightly concave internally, remaining joints very narrow. **Prothorax** widest near the middle where it is one-third wider than long; sides strongly convergent and nearly straight anteriorly, less strongly convergent and feebly arcuate to the base which is nearly transverse; basal angles obtuse, not at all rounded, somewhat prominent; apex broadly areolate, about two-thirds as long as the base; disk broadly convex, finely very densely and strongly punctate; punctures perforate, round, generally separated by their own widths or less; near the base there is on each side of the middle a large deeply impressed lunate area, the two being completely divided. **Scutellum** small, nearly circular. **Elytra** three-fourths wider than the pronotum; sides parallel and nearly straight; humeral angles rounded; together rather abruptly and obtusely rounded behind, leaving the tip of the pygidium exposed; disk broadly convex, distinctly more than twice as long as wide, rather finely very deeply and nearly evenly punctate; punctures perforate, round near the base, finer and more elongate near the apices, generally separated by twice their own widths, interspaces flat, extremely minutely punctulate; each elytron is narrowly margined along the suture, and is broadly impressed in the middle near the base and slightly swollen between the impression and the scutellum. **Legs** slender; posterior femora strongly toothed on the internal edge at two-thirds the length from the base, the opposite outer edge is also slightly swollen. **Abdomen** finely punctate and minutely reticulate. Length 2.0 mm.

Glenolden, near Philadelphia, I.

I can distinguish but four ventral segments besides the very short pygidium, the first two being perhaps connate and together as long as the remaining three. The only species which can be confounded with this is *impressus*, after which it should stand in the catalogue; it differs from that species, according to Dr. LeConte's description, in size color and form.

NOTOXUS Geoff.

N. delicatus n. sp.—Form slender, rather convex. Pale testaceous, head and prothorax slightly darker, on the disk of each elytron near the middle and very near the base there is a rounded suffused spot of slightly darker tint; also at or just behind the middle a transverse very narrow band of fuscous tint, bent forward near the suture so that the anterior point on the suture is distinctly in front of the middle, also at the apical fifth a narrow band of the same color, somewhat broader and much more regular, slightly bent forward toward the elytra, apices pale, under surface very pale reddish flavate, legs same, antennae slightly darker; pubescence fine, very dense and recumbent with a few erect scattered setae. **Head** slightly longer than wide, very broadly sinuate behind; eyes moderate, very coarsely granulate, three-fourths their own length in advance of the posterior angles; interocular surface broadly and strongly impressed, rather densely pubescent, coarsely alutaceous or reticulate; supra-ocular carinae very fine rather feebly convergent anteriorly; antennae longer than the head and prothorax together, second joint rather robust, one-half longer than wide, two-thirds as long as the third, very much shorter than the fourth, outer joints compressed. **Prothorax** very slightly longer than wide; sides very arcuate anteriorly, straight and moderately convergent posteriorly; disk very convex, very finely and feebly punctate, basal groove transversely and posteriorly angulate, narrow, very strong, not attaining the basal margin; horn much shorter than the pronotum, narrow, not constricted at base, rather acutely rounded anteriorly, edge reflexed, finely and rather distantly dentate throughout the circumference, crest rather feebly elevated, long, narrow, acute anteriorly where the surface is slightly declivous, edge broken, finely dentate. **Elytra** at base one-fourth wider than the pronotum, widest slightly behind the middle where it is nearly two-thirds wider than the pronotum; disk conjointly evenly rounded behind; inner apical angles narrowly rounded; rather convex, feebly impressed at the basal third, two and one-third times longer than wide, coarsely closely and evenly punctate; punctures rounded and impressed. **Legs** slender; first joint of the posterior tarsi very slightly longer than the remainder.

Male.—Terminal segment narrowly truncate at tip; surface feebly reflexed but scarcely impressed.

Female.—First segment relatively a little shorter; terminal obtusely acuminate at tip; first joint of the posterior tarsi much longer than the remainder; thoracic horn much wider, strongly dilated toward tip and constricted at base. Length 2.8 mm.

Atlantic City and Cape May, N. J., 3.

A very fine distinct little species which apparently belongs immediately after *bifasciatus* in the catalogue; it is not rare along the seacoast of New Jersey. The bands of the elytra are very narrow and often very pale in color.

ANTHICUS Payk.

A. facilis n. sp.—Moderately slender, black throughout, legs and antennae very dark piceo-testaceous; pubescence somewhat coarse, sub-erect, rather long and dense, pale fulvous in color; integuments polished. **Head** moderate in size, slightly wider than long, truncate behind; sides behind the eyes parallel and feebly arcuate; basal angles moderately rounded, prominent; eyes small, convex, rather coarsely granulated, at more than their own length from the base; interocular surface convex, finely deeply and evenly punctate; antennae two-thirds longer than the head, slender, basal joint one-half longer than wide, joints two to six equal in width, elongate, narrower than the first, nearly equal in width, seven to eleven abruptly wider, equal in width, forming a slightly prominent five-jointed club, joints seven to ten equal, slightly wider than long, eleventh longer, acuminate. **Prothorax** widest at less than one-third its length from the apex where it is slightly narrower than long; sides here strongly arcuate and convergent to the apex, less convergent and feebly sinuate to the base; apex prolonged slightly as a narrow transverse band but slightly more than one-half as long as the base, the latter broadly arcuate; disk strongly convex, slightly narrower than the head, finely very deeply and somewhat unevenly punctate; punctures round, perforate, interspaces flat, polished. Scutellum very minute. **Elytra** at base distinctly wider than the head; sides parallel and slightly arcuate for four-fifths the length from the base; together obtusely rounded at tip, leaving the tip of the last ventral segment and pygidium exposed; inner apical angles slightly rounded; disk twice as long as wide, broadly convex, slightly impressed along the suture near the base, coarsely very deeply and rather densely punctate; punctures round, perforate toward the base, becoming impressed and more feeble near the apices. **Abdomen** alutaceous, feebly shining, extremely minutely and feebly punctulate toward the base, finely and sparingly pubescent; hairs cinereous and recumbent; first segment in the middle nearly as long as the next three together; metasternum rather coarsely and very deeply punctate. **Legs** slender; first joint of the posterior tarsi as long as the remainder; claws small, slender. Length 1.8 mm.

Near Chester, Pennsylvania, 3.

Taken under rubbish on the shores of the Delaware River in early spring. It is easily distinguished by its small size, black color, and coarse deep and dense punctuation.

RHYNCHITES Herbst.

R. naso n. sp.—Form rather slender. Color above intense black, beneath bluish-black, legs same, tarsi not paler, antennae slightly paler and piceous toward base, black toward tip. Pubescence fine, short, rather sparse, semi-erect, longer and coarser but more sparse on the abdomen, more dense and cinereous on the tibiae and tarsi. **Head** rather longer, slightly wider than long, rather convex, deeply coarsely and closely ruguloso-punctate; eyes rather large and slightly prominent, somewhat finely granulated;

beak very long and slender, nearly as long as the elytra and fully one-third longer than the head and pronotum together, cylindrical except at the tip where it is dilated and flattened; mandibles very conspicuous, tridentate without, sparsely truncate at tip, and having within two minute teeth near the tip; between them on the apex of the beak are two porrected tubercles; surface strongly rugulose or longitudinally channeled, the channels confusedly coalescing at the base, above there is a longitudinal carina deeply canaliculate along the crest; sides of the head finely rugulose in the form of long vertical crowded folds; antennae three-fourths as long as the beak, slender, inserted at one-third the length from the eye, second joint long and slender, much longer than the first, very slightly longer and thicker than the third, club abrupt, not very compact, joints almost equal in length and slightly longer than wide. **Prothorax** as long as wide, widest at one-third its length from the base; sides feebly arcuate, more strongly so near the base; apex and base equal in length, but very slightly shorter than the greatest width; disk sub-cylindrical, transversely and very feebly impressed at the anterior fourth, very coarsely closely and deeply punctate, intervals about one half as wide as the punctures, convex and polished; sides of the punctures irregularly and finely indented. **Elytra** widest at two-thirds the length from the base where they are five-sixths wider than the pronotum; humeri prominent, rather rounded; sides behind them feebly and broadly sinuate; disk rather abruptly and broadly rounded behind, more than one-third longer than wide, very convex toward tip, flat or very feebly impressed above and near the base, highly polished, punctato-striate; striae feebly impressed, punctures large, very deep, close and almost perforate, intervals three times as wide as the punctures, feebly convex and finely undulated. **Abdomen** transversely and feebly rugulose. **Legs** very long and slender; tibiae fimbriate at tip with short nearly equal spinules; claws robust, distinctly toothed or cleft within at one-half their length from the base. Length (exclusive of beak) 2.8 mm.

California, 1.

The contrast between the very coarsely and deeply punctate pronotum and the finely and vertically rugulose or strigilate sculpture of the sides and under surface of the head is one of the greatest which I have observed in two adjoining surfaces of the same insect. I cannot see any species to which it can be allied, but it may for the present be placed immediately after *hirtus* Oliv., from which it differs by its more dense pronotal punctuation, and in the elytral intervals not being serially punctulate; it also appears to have a much longer beak.

ANTHONOMUS Germ.

A. moleculus n. sp.—Form rather robust. Black throughout, antennae piceous toward tip, paler and brownish-testaceous toward base, legs black, tarsi very slightly paler, piceous, upper surface covered not very densely with small elongate cinereous scales which are more dense beneath,

except on the abdomen where they are much more sparse, and, except near the sides, are so narrow as to almost lose the appearance of scales. **Head** small, finely and strongly granulate; eyes moderate, slightly prominent, rather coarsely granulate; beak somewhat robust, as long as the head from the anterior limit of the eyes and prothorax together, very feebly enlarged from base to tip, the latter appreciably flattened, surface strongly granulose, very obscurely and longitudinally ruguloso-punctulate, not striate; near the tip there is a small polished space and four short setae, two apical and two lateral; antennae attached slightly beyond the middle point, scape much longer than the funicle, very slender, rather abruptly clavate at tip, funicle 6-jointed, first robust and elongate, distinctly longer than the next two together, second longer than wide, slightly narrower and distinctly longer than the third which is wider than long, club compact, elongate, oval, acuminate at tip. **Prothorax** widest at one-third the length from the base where it is almost twice as wide as the medial length; sides rather strongly arcuate, feebly convergent toward the basal angles and feebly sinuate near the apex, the latter about one-half as long as the base, broadly emarginate; base nearly transverse; disk convex, very feebly constricted throughout at the apical third, very coarsely deeply and closely punctate, interspaces about one-third as wide as the punctures, shining. Scutellum small, oval, very slightly longer than wide, strongly convex. **Elytra** widest at one-third the length from the base where they are one-third wider than the pronotum; sides very feebly arcuate; humeri narrowly rounded; base transverse and elevated slightly above the pronotum; disk very convex, from above not three times as long as the pronotum and nearly two-fifths longer than wide; striae very feebly impressed, very coarsely closely and deeply punctate, more feebly so toward the apices, intervals much wider than the punctures, nearly flat; inner apical angles slightly rounded. **Pygidium** exposed, nearly twice as wide as long, broadly rounded beneath, coarsely and very strongly granulose. Fifth ventral segment distinctly longer than the fourth, third fourth and fifth sutures curved backward at the sides successively to a greater degree; claws very deeply and widely cleft. Anterior femora having a distinct but small tooth beneath at two-thirds the length from the base, remaining femora not toothed; anterior tibiae obliquely truncate at tip and armed interiorly with a short acute apical tooth which is slightly recurved. Length 1.6 mm.; width 0.9 mm.

Pennsylvania, near Philadelphia, 1.

On comparing this specimen with Dr. LeConte's type of *robustus*, I had come to the conclusion that it was distinct on account of the narrower form and slightly different vestiture, and this opinion is somewhat strengthened on reading the original description wherein it is stated that the femora are not toothed, and the second and third joints of the funicle are nearly equal. It is, however, very closely allied to *robustus* which is described from Kansas. The second ventral segment is as long as the third and fourth together, the latter equal in length.

ELLESCHUS Steph.

E. californicus n. sp.—Form long and slender, piceous or rufopiceous, covered densely with very elongate narrow scales which are disposed transversely on the pronotum and longitudinally on the elytra, generally yellowish-cinereous, sparser along a median line on the pronotum; elytra having a transverse rectangular dark spot on the suture just behind the middle; between this and the base there are a few faint mottlings; under surface more sparsely covered with very thin scale-like white hairs. **Head** small, slightly wider than long, convex very densely and coarsely punctate; eyes large, moderately prominent, somewhat coarsely granulate, separated by much less than their own width; beak rather short and robust, glabrous and polished in the apical two-thirds, where the punctures become very small, isolated, and distinct, absent from a narrow medial region and from the extreme tip, the latter bearing about six fine erect setae; antennae testaceous throughout, scape slender, bent at tip, scrobes very deep, oblique, first joint of the funicle slightly shorter than the next three together, second slightly longer than the third, club short, oval, very compact. **Prothorax** widest in the middle where it is very slightly wider than long; sides thence very feebly convergent and nearly straight to the base, more strongly convergent and feebly sinuate near the apex, the latter nearly three-fourths as long as the base, both broadly and very feebly arcuate; disk strongly convex, coarsely deeply and very densely punctate; punctures round. **Scutellum** small, longer than wide, more densely squamulate, ogival. **Elytra** at base one-third wider than the pronotum; sides parallel and straight for two-thirds the length, then convergent; each elytron acutely rounded at the inner apical angle; disk strongly convex transversely, feebly so longitudinally, more than twice as long as the head and pronotum together and about twice as long as wide; striae somewhat feebly impressed, very coarsely deeply and closely punctate; punctures somewhat elongate-oval, intervals nearly flat, three times as wide as the punctures. **Abdomen** flat, coarsely and very feebly punctulate. **Legs** short and robust, dark piceo-testaceous throughout; tibiae short, obliquely truncate, having a single interior terminal spine, fimbriate at tip with short equal spinules. **Claws** very small, strongly arcuate, having a short distinct tooth near the base. Length (exclusive of beak) 2.6 mm.

California, 2.

Of *Elleschus* there are in my cabinet three forms, viz.: A small species 1.8 mm. in length, pale in color and very densely punctate on the pronotum, abundant near the Atlantic seaboard; another represented by eight very uniform specimens from Kansas, 2.4 mm. in length, with less dense pronotal punctuation, and a third, above described, which differs from the other two by the distinct punctures of the beak and the much coarser pronotal punctuation, as well as in its more elongate cylindrical form and larger size. The first of those above mentioned is probably *ephippiatus*, the second may be distinct and if so is probably undescribed.

BRACHIYTARSUS Sch.

B. paululus n. sp.—Form short and stout, oval; pubescence short, very coarse and dense, piceous-brown mottled with cinereous of which a long narrow sutural spot at the base of the elytra is the most conspicuous, pubescence of under surface testaceous; integuments deep black throughout; antennae pale testaceous throughout, femora piceous-black, tibiae fuscotestaceous, tarsi slightly darker. **Head** and beak together two-thirds longer than wide, slightly inflexed; surface moderately convex; punctures variolate, round, somewhat scabrous, very indistinct and excessively shallow; eyes moderate in size, rather prominent; beak beginning at the eyes, flat, wider than long, trapezoidal, limited laterally by the straight elevated margins; labrum small, wider than long, broadly rounded anteriorly, slightly paler in color; antennae slender, about as long as the head, third joint much longer than the fourth, about as long as the second. **Prothorax** from above widest at the base where it is about one-sixth wider than long; sides rather strongly convergent to the apex near which they are almost straight, feebly arcuate in the middle and distinctly sinuate for a short distance in front of the basal angles which are acute and quite prominent; apex broadly arcuate, about one-half as long as the base; disk very convex, impressed along the somewhat reflexed and acute basal ridge, very coarsely moderately closely and somewhat irregularly punctate, punctures round, variolate, and very shallow; basal ridge obtusely and posteriorly angulate in the middle, sides straight and posteriorly flexed near the basal angles, properly terminating at the latter. **Elytra** at base equal in width to the pronotum; sides parallel and feebly arcuate for two-thirds the length from the base, thence more convergent, conjointly abruptly and obtusely rounded behind; disk moderately convex, two-fifths longer than wide and about two-thirds longer than the pronotum; striae narrow, deeply impressed, coarsely but not very distinctly punctate, intervals slightly convex, finely ruguloso-punctate. Scutellum minute, oval, slightly transverse. Pygidium slightly wider than long, feebly convex, coarsely and very feebly punctate. **Abdominal** segments closely and rather feebly punctate, punctures of unequal sizes. **Legs** rather robust; tibiae sparsely fimbriate at tip with short stiff setae; posterior tarsi equal in length to the tibiae, first and second joints equal in length, the latter slightly more densely pubescent, fourth slightly longer and thinner, narrow at base, third one-half as long as the second, deeply bilobed, densely pubescent beneath; claws moderate, deeply cleft at the sides. Length 1.3-1.5 mm.

Millford, Delaware, 4.

The smallest species described from our territories and somewhat allied to *tomentosus*, from which it differs in its smaller size and mottled elytra; the basal carina properly terminates at the basal angles which are slightly callous, but the lateral edges of the pronotum are acute and well marked for a very short distance anteriorly, much less however than one-third the pronotal length. The posterior margin of each elytron is distinctly sinuate near the interior apical angle, causing the latter to have the form of a very small acute cusp.

NOTES AND ERRATA.

PART I.

- Page 8.—The species described as *Harpalus opacus* is in reality an *Anisodactylus*. There is one discal puncture on the elytra at the posterior third, and two setigerous punctures at each anterior angle of the epistoma. The specimen described is not a male but a female; I have since discovered a male amongst some discarded duplicate material; it is more shining than the female type.
- Page 11.—*H. concictor* should probably be placed as a synonym of *canonicus*, and *canonicus*, *lustralis* and *anesceus* placed as varieties of *viridicinctus*, at least until renewed study can be made with greatly increased material.
- Page 31.—I am informed by Mr. Fanvel that Dr. LeConte's *Edaphus nitidus* has not four basal pronotal foveae but six, and that *E. luculentus* is probably a synonym. In order to decide this question, however, it is necessary to examine Dr. LeConte's original type of *E. nitidus* which I have been unable to do.
- Page 50.—*Pl. parvulum* is perhaps a very small and singularly deformed specimen of *excaratum*, and the name should therefore be entered as a synonym of that species until future collecting can decide upon its true relationship.
- Page 57.—6th line from bottom, for "middle" read "base."
- Page 58.—After Fig. 7, for "antenna" read "maxillary palpus."

REVISION OF THE CUCUJIDAE.

Tr. Am. Ent. Soc. XI.; Feb. 1884.

Synonymical notes.

Through the kindness of M. A. Grouvelle, who has provided me with types of many species of this family, I am enabled to present the following remarks:—

- Page 72.—*Sil. quadricollis* Guér.—This is not the species indicated but *Cathartus cassiae* Reiche.
- Page 73.—*Sil. advena*, *rectus*, and *opaculus* should be read *Cathartus advena*, *rectus*, and *opaculus*.
- Page 76.—By renewed observation I am quite positive that *Prostomis americana* Cr. is an absolute synonym of *mandibularis* Fab.

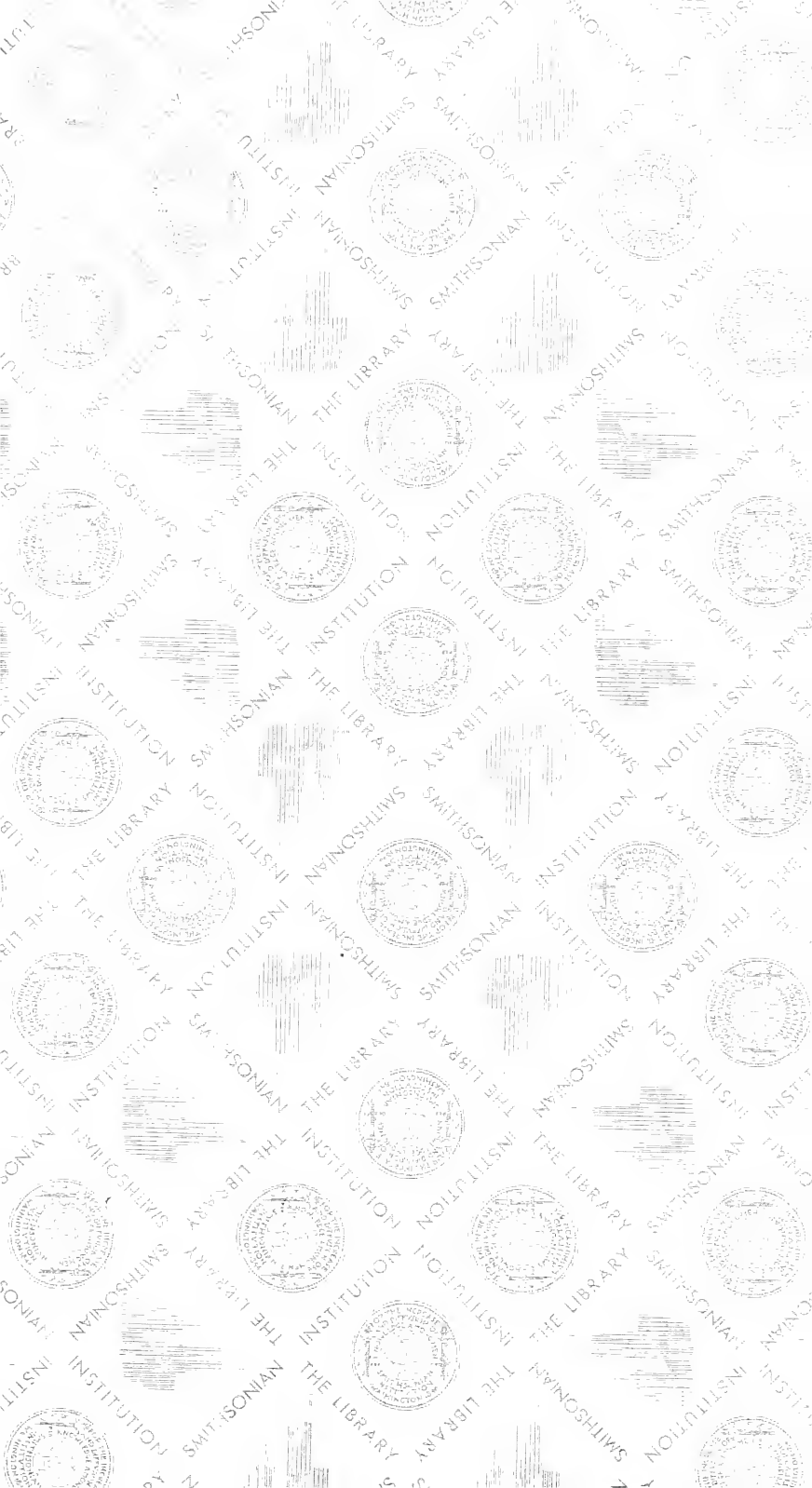
M. Grouvelle considered that *Cath. opaculus* Lec. might be a synonym of *Cath. quadricollis* Guér., but from a direct comparison of the types I find that they are quite distinct. The above author also informs me that *Lamoph. longicornis* Mann. is a synonym of *pusillus* ♂.

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