

as wide, the sides parallel, the basal angles distinctly rounded; eyes larger, at one-half more than their own length from the base, the punctures relatively coarse and less sparse; antennae similar; prothorax distinctly more elongate, wider than the head, the sides more nearly parallel, straight, the punctures coarser, rather sparse, the medial series similarly impressed; elytra much larger, distinctly elongate, two-fifths wider and a third longer than the prothorax, the sides straight and feebly diverging, the punctures fine and feeble, more close-set, the series very uneven and ill-defined. Male with the surface of the fifth and sixth ventrals wholly unmodified throughout, the latter not impressed at tip, the apex rather narrow, with a gradually formed subtriangular sinus, one-fourth as wide as the tip, distinctly wider than deep, with the bottom angle obtuse. Length 3.8 mm.; width 0.7 mm. Mississippi (Vicksburg) and Indiana (Cab. Levette)....*leviceps* n. sp.

The male of *analisis*, from Morgan City, has the shallow cuspidiform emargination of the sixth ventral rather deeper, more abruptly formed or more triangular than the Texas males, and the eyes are a trifle smaller, but there are no other tangible differences.

Paralathra n. gen.

This genus is somewhat composite, for, with a general habitus which is not very distinctive and suggestive of *Lathrotaxis*, it has the gular sutures of *Lathrobiella* and the hind tarsi somewhat as in *Lathrotaxis*, from which it differs in the form of the gular sutures, densely punctate and dull abdomen and narrower neck. The general surface is decidedly more convex than in *Pseudolathra*, the latter also having the gular sutures much more widely separated at base or more strongly divergent. I am compelled therefore to regard the single species as a distinct genus; it may be described as follows:—

Body rather stout, parallel, polished, the abdomen dull, pale and bright rufous in color, the head dark rufo-piceous, the abdomen infuscate, becoming rufescent at tip, the legs and antennae pale; head rather well developed, somewhat wider than long, parallel and nearly straight at the sides, truncate at base, with the angles distinctly rounded; eyes large and well developed but feebly convex, at about a third more than their own length from the base, the punctures extremely sparse, not very coarse; antennae nearly half as long as the body, slender, feebly incrassate distally, the medial joints not quite twice as long as wide;

prothorax very slightly wider than the head, but little longer than wide, the sides parallel and nearly straight, the apical and basal angles narrowly and subequally rounded, convex, the punctures fine, very sparse, coarser in a more close-set series along the median smooth line, the series wholly unimpressed; elytra slightly elongate, a fourth wider and longer than the prothorax, the sides just visibly diverging throughout and nearly straight, the punctures fine, rather sparse, arranged in somewhat close-set, broadly impressed series, except toward tip where all sculpture becomes very feeble; abdomen broad, as wide as the elytra. Male unknown; female with the sixth ventral narrow, evenly rounded at tip. Length 4.6 mm.; width 0.88 mm. Colorado (Greeley). *filicornis* n. sp.

A single specimen only of this species was received from Mr. Wickham some years ago.

Linolathra n. gen.

The comparatively few known species of this genus have a very distinct habitus, due to their small size, narrow and rather convex parallel form, polished surface, with very coarse and sparse elytral punctures, and distinct but not close-set abdominal sculpture. They are strongly suggestive of *Dacnochilus* and are really much more closely related to that genus than to *Lathrotaxis* or *Lathrobiella*. The four species represented in my cabinet may be readily known as follows:—

- Head and abdomen black..... 2
 Head and abdomen pale in color..... 4
 2—Tip of the abdomen rufous. Body parallel; prothorax, elytra and legs pale and bright rufous, the elytra not definitely darker toward base; head scarcely as long as wide, the sides subparallel and feebly arcuate, the angles well rounded; base subtruncate, the neck scarcely half as wide as the head; eyes convex, at rather less than twice their own length from the base, the punctures somewhat coarse, very sparse; antennae moderately thick, very feebly incrassate, distinctly longer than the head and prothorax, the medial joints less than half longer than wide; prothorax small, slightly elongate, somewhat narrower than the head, the sides parallel and feebly arcuate; anterior angles distinct, the basal rounded, the punctures moderately coarse, forming one or two shorter curved lateral series and a well marked close series along the median impunctate area, the latter series impressed toward base; elytra quadrate, parallel, much wider than the head, a third wider and nearly a fourth longer than the prothorax, the punctures coarse, impressed, sparse, disposed in three or four series, the sutural being very widely separated from the next discal series; abdomen slender, much nar-

rower than the elytra, rather shining. Male with a small, abruptly formed, semicircular emargination at the apex of the fifth ventral, the notch fully twice as wide as deep and a tenth as wide as the apex, the adjacent surface glabrous, just visibly impressed along the middle for a short distance; sixth segment longitudinally impressed along the middle, the impression shallow but well defined, gradually narrowing anteriorly throughout and extending nearly to the base, the apex with a broadly rounded and gradually formed sinus, three-fifths as wide as the apex and four or five times as wide as deep. Length 5.0 mm.; width 0.7 mm. Texas (Austin and Del Rio).....*gaudens* n. sp.

Tip of the abdomen not paler..... 3

3 — Head less distinctly narrower than the elytra; antennae longer, thicker and distinctly incrassate distally. Body parallel, moderately slender, bright testaceous in color, the legs concolorous, the antennae infuscate except at base and apex; elytra abruptly black in basal three-fifths to half; head slightly wider than long, the sides parallel and feebly arcuate; base arcuate-truncate, the angles obtuse but scarcely rounded; eyes at nearly twice their own length from the base, the punctures very sparse; antennae unusually developed, thick, the median joints about one-half longer than wide, slightly longer than head and prothorax, the latter slightly elongate, parallel, distinctly narrower than the head, the anterior angles not rounded, the basal rather broadly; sides straight, the punctures fine, very sparse laterally, with a single slightly impressed series of larger punctures along the median smooth space; elytra scarcely longer than wide, a fourth wider and about a fifth longer than the prothorax, punctured nearly as in the preceding species but rather more closely and less coarsely; abdomen narrower than the elytra. Male with sexual characters as in *gaudens*, except that the emargination of the fifth ventral is still smaller, much more gradually formed and three or four times as wide as deep and with the entirely similar impression of the sixth shorter, coming far from attaining the segmental base. Length 4.6 mm.; width 0.7 mm. Texas (Columbus). [= *horni* Duviv.].....*dimidiata* Say

Head smaller, always very much narrower than the elytra; antennae thinner and only feebly incrassate; but as long as the head and prothorax. Body slightly more slender, nearly similar in coloration, except that the elytra are variable in ornamentation, some examples having a blackish though more or less medial cloud in almost basal half, others with the cloud almost obsolete; head fully as long as wide, rather coarsely but very sparsely punctate toward the sides, the latter generally feebly converging from the eyes to the rounded basal angles; prothorax distinctly elongate, subparallel, with broadly rounded basal angles, only very slightly narrower than the head, the punctures rather coarse, widely scattered near the sides, more distinct in the subimpressed series along the medial smooth area as usual; elytra nearly as in *dimidiata* but narrower and distinctly elongate; abdomen narrower than the elytra. Male with the emargination of the fifth ventral very gradually formed, shallow, broadly rounded, three or four times as wide as deep and an eighth or ninth as wide as the segment; sixth segment with the impression shorter and broader, conical, with its apex broadly

rounded and not acute as in the preceding species, the shallow and broadly rounded apical sinus nearly similar, fully three-fifths as wide as the apex. Length 4.4 mm.; width 0.65 mm. Virginia, Tennessee, Mississippi (Vicksburg) and Texas (Austin).....*flitarsis* n. sp.

4 — Body slender, polished, pale yellowish-testaceous in color, the abdomen sometimes slightly piceous with the apex broadly rufescent; head parallel at the sides, the angles obtuse but only slightly rounded, the base arcuate, the punctures fine and very sparse; antennae as long as the head and prothorax, rather slender and only very feebly incrassate distally; prothorax slightly elongate, only just visibly narrower than the head, the sides subparallel and nearly straight, the apical angles very narrowly, the basal broadly, rounded; surface with a few coarse punctures forming an arcuate series near the sides anteriorly and others forming the usual series bounding the median impunctate area; elytra distinctly elongate, subparallel, two-fifths wider and a third longer than the prothorax, the punctures fine and extremely sparse, arranged in a few series as in the preceding species; abdomen slightly narrower than the elytra, more minutely and more closely punctulate than in *flitarsis* and the other species. Male not at hand; female with the sixth ventral very broadly and feebly rounded behind. Length 4.0 mm.; width 0.62 mm. Arizona (Tucson).....*lituaria* Lec.

The species described by Say under the name *Lathrobium dimidiatum*, is improperly identified in our cabinets, the name being applied to the species called *flitarsis* in the table. *Flitarsis* appears to be rather inconstant in other respects than the coloration of the elytra, for example in the convergence of the sides of the head behind the eyes, some examples having the sides parallel without regard to sex. The male sexual characters, are, however, virtually constant, and so no division can be attempted. Dr. Sharp records *dimidiata* from Mexico, but the species is probably not the same, although congeneric, as may also be the case with *pusilla* Shp., from Tabasco.

Lathrobiella n. gen.

This genus is the most extensive of the plicate *Lathrobia* and is composed of small species, frequently closely allied among themselves. It has the same geographical distribution as *Lathrotaxis*, although inclined to a more northern range, and, up to the present time, is wanting as far as known in California, where *Lathrotaxis* is represented by a single very isolated species, *atronitens* belonging to the Sonoran fauna

and not truly to that of California. The species represented in my cabinet may be divided for convenience into several sections, as shown in the table, based largely upon general habitus. The section represented by *ambigua* Lec., is very distinct in facies from the others. The species may be known by the following characters: —

- Species of the *ventralis* type. Head small; prothorax large, parallel, with all the angles rounded, the elytra large, with the punctures finer, more close-set and sometimes not distinctly serial. 2
- Species of the *collaris* type. Head small; prothorax nearly as in the preceding, the anterior angles generally less rounded, the surface more coarsely punctured; elytra wider and longer than the prothorax but usually smaller than in the *ventralis* type, with the punctures coarser, sparser and arranged in more or less impressed series. 3
- Species of the *aemula* type. Head moderately small; prothorax oblong, with all the angles more or less rounded; elytra much less developed, but little wider and longer than the prothorax, with the punctures arranged in close-set impressed series. 7
- Species of the *ambigua* type. Body smaller and more depressed than in the preceding sections, the head subequal in width to the prothorax, the latter elongate, parallel, narrow, with the sides straight, the anterior angles right and not obviously rounded; elytra longer and much wider than the prothorax, with the punctures rather irregularly serial. 10
- 2 — Body moderately stout, black, the prothorax slightly piceous, the entire abdomen paler, dark piceo-rufous, the legs and antennae pale; surface polished, the abdomen densely dull; head about as long as wide, the sides behind the eyes distinctly converging and straight to the basal angles, which are obtusely rounded, the punctures coarse and sparse; eyes rather prominent, at one-half more than their own length from the base; antennae moderately slender, feebly incrassate distally, as long as the head and prothorax, the medial joints about one-half longer than wide; prothorax much wider than the head, distinctly longer than wide, the sides parallel and very feebly arcuate, the punctures not very coarse but deep and distinct, sparse, more aggregated narrowly along the median smooth line; elytra parallel, distinctly elongate, two-fifths wider and longer than the prothorax, the punctures not very coarse but deep and strong, rather close-set, the series indistinct and extending only slightly behind the middle; abdomen slightly narrower than the elytra, parallel, straight at the sides, minutely and very densely punctulate. Male unknown; female with the sixth ventral broadly subangulate at tip, the angle obtusely rounded. Length 4.7 mm.; width 0.88 mm. Texas (Galveston) *nigricans* n. sp.
- Body rather more slender and elongate, shining with the abdomen densely dull, pale rufo-testaceous in color, the head black, the elytra black but rufo-piceous narrowly along the suture and broadly toward base, the abdomen infusate; legs and antennae pale; head as long as wide, the sides behind the eyes very feebly converging and straight to the obtuse

- but only slightly rounded basal angles, the base truncate; punctures sparse, rather coarse; antennae nearly as in *nigricans* but rather thicker, the medial joints less than one-half longer than wide; prothorax more elongate, distinctly wider than the head, parallel and very feebly arcuate at the sides, the punctures only moderately sparse, rather coarse and distinct, unevenly serial along the median smooth area; elytra much elongated, parallel, fully a third wider and longer than the prothorax, the punctures small but distinct, rather close-set, serial except toward tip, sometimes rather confused throughout; abdomen parallel, distinctly narrower than the elytra. Male with the fifth ventral unmodified, the sixth feebly impressed along the middle, the sides of the impression obtusely rounded and not abrupt, the apex with a subtriangular sinus with rounded angle, nearly a third as wide as the apex, somewhat wider than deep and apparently eccentric and asymmetric, being to the right of the centre — estimating from the segmental base — and with its right side more strongly diverging from the axial line than the left; female not at hand. Length 4.5 mm.; width 0.8 mm. New Jersey. [= *Lathrobium tricolor* Csy.?] *ventralis* Lec.
- Body larger and much stouter, the head black; prothorax and elytra uniform and concolorous, rufo-piceous, the abdomen piceous-black, becoming rufous at tip and narrowly at the apex of each segment; legs and antennae testaceous; head nearly as in *ventralis*, the eyes rather larger, the nearly straight sides equally feebly converging and meeting the broadly arcuate base in obtuse angles, which are scarcely at all rounded; prothorax distinctly elongate, much wider than the head, parallel, the sides broadly arcuate, the punctures rather coarse and not very sparse, not lineate along the smooth area; elytra large, much elongated, subparallel, a third wider and two-fifths longer than the prothorax, the punctures not coarse but distinct, impressed, rather close-set and partially serial; abdomen broad, equal in width to the elytra, finely and densely punctulate. Male unknown; female with the sixth ventral very obtusely subangulate and rounded at tip. Length 4.9 mm.; width 0.92 mm. Pennsylvania *barda* n. sp.
- 3 — Antennae half as long as the body in the male, rather shorter in the female, slender, but very slightly incrassate distally, the medial joints nearly twice as long as wide. Body rather stout, only moderately convex, colored as in *collaris*; head fully as long as wide, coarsely and sparsely punctate, parallel at the sides, the angles rounded; prothorax large, only very slightly longer than wide, smaller and straighter at the sides in the female, much wider than the head, the sides feebly convergent from apex to base and broadly, evenly arcuate throughout; anterior angles rather distinct, the punctures fine and very sparse, lineate along the median smooth space; elytra depressed, slightly elongate, the sides feebly diverging and straight throughout, a fourth wider and a third longer than the prothorax, the punctures strong, though not very coarse, not close-set, arranged in even impressed series, confused toward tip; abdomen broad, scarcely narrower than the elytra, minutely, densely punctulate. Male with the fifth ventral unmodified, the sixth not impressed but broadly glabrous toward the middle, the apex with a large triangular notch much wider than deep, two-fifths as wide as

- the apex, gradually formed, with the angle distinctly rounded, the lobes of the apex evenly and rather strongly rounded. Length 4.6-5.4 mm.; width 0.88 mm. Iowa and Nebraska (Lincoln)....*gracilicornis* n. sp.
- Antennae distinctly less than half as long as the body; the medial joints less elongate.....4
- 4 — Prothorax smaller when compared with the elytra, its sides frequently almost straight.....5
- Prothorax larger, the sides parallel and always distinctly arcuate.....6
- 5 — Prothorax parallel and broadly arcuate at the sides; body moderately stout, convex, polished, bright rufous, the legs and antennae pale, the head black, the abdomen piceous-black, dull rufescent at tip; head as long as wide, parallel and straight at the sides, with broadly rounded basal angles, coarsely and sparsely punctate; antennae in the male as long as the prothorax and elytra combined, only moderately slender, scarcely at all incrassate, the medial joints three-fourths longer than wide, a little shorter and thinner in the female; prothorax in the male only slightly elongate, rather distinctly wider than the head, finely but distinctly, very sparsely punctate, the punctures irregularly subserial along the smooth area, narrower in the female, with the sides almost straight; elytra distinctly longer than wide, the sides subparallel and almost straight, fully two-fifths wider and longer than the prothorax in both sexes, the punctures not coarse but distinct, arranged in regular and scarcely impressed series almost throughout; abdomen much narrower than the elytra, densely punctulate. Male with the fifth ventral unmodified, the sixth glabrous and very faintly impressed along the middle, the apex with a very small triangular emargination, slightly wider than deep, with its angle narrowly rounded, about a sixth or seventh as wide as the apex, the lateral lobes strongly rounded; female with the sixth ventral broadly parabolic at tip. Length 5.7 mm.; width 0.95 mm. Oregon.....*oregonensis* n. sp.
- Prothorax parallel and virtually straight at the sides — at least in the female; — body rather more slender and parallel, bright rufous throughout, except the head which is black, the piceous-black abdomen rufescent at tip; head rather well developed, somewhat wider than long, parallel at the sides, the basal angles only moderately broadly rounded; eyes rather prominent, well developed, the punctures coarse and sparse; antennae in the female but little longer than the head and prothorax, rather thick, distinctly incrassate distally, the medial joints two-thirds longer than wide; prothorax distinctly elongate, only slightly wider than the head, the sides subparallel and straight, the punctures unusually coarse, deep and conspicuous and only moderately sparse; elytra parallel, slightly elongate, a third wider and longer than the prothorax, with moderate punctures not very close-set in regular impressed series, confused toward tip; abdomen distinctly narrower than the elytra. Male unknown. Length 5.5 mm.; width 0.9 mm. Tennessee (Nashville).....*fallax* n. sp.
- 6 — Antennae nearly half as long as the body, rather thick, distinctly incrassate distally, the medial joints only slightly less than twice as long as wide; head small, as long as wide, parallel at the sides, the angles broadly rounded, the punctures coarse and sparse; prothorax a

- little longer than wide, much wider than the head in both sexes, the sides subparallel and feebly arcuate, the basal angles broadly rounded, the punctures fine, feeble, very sparse and inconspicuous; elytra parallel, distinctly elongate, about a fourth wider and a fifth longer than the prothorax in the male, relatively wider and longer in the female, the punctures not very coarse, strongly impressed and distinct, not very close-set in distinctly impressed series, confused toward tip; abdomen rather wide, but little narrower than the elytra, densely punctulate. Male with the fifth ventral unmodified, the sixth narrowly glabrous and subimpressed along the middle, the apex with a triangular emargination about as deep as wide, gradually formed, about a third as wide as the segmental apex, with its angle acute and not obviously rounded; lobes of the apex strongly, evenly rounded; female more abundant than the male, nearly similar but with a relatively smaller prothorax. Length 5.0-5.8 mm.; width 0.85-0.92 mm. Massachusetts, Rhode Island, New York, Pennsylvania, Indiana and Iowa.....*collaris* Er.
- Antennae rather stout, distinctly incrassate distally, nearly half as long as the body, with the medial joints about three-fourths longer than wide in the male; coloration as in *fallax*; head fully as long as wide, rather coarsely, very sparsely punctate, nearly as in *collaris* but with the basal angles less broadly rounded; prothorax as in *collaris* but shorter, only very slightly longer than wide, the sides distinctly arcuate, similarly finely and sparsely punctate; elytra distinctly elongate, the sides subparallel, a third wider and longer than the prothorax, the punctures smaller, feebler and less close-set than in *collaris* but similarly arranged, the series much less impressed; abdomen narrower, distinctly narrower than the elytra, densely dull and punctulate as usual. Male with the fifth ventral unmodified as usual, the sixth narrowly glabrous along the middle only in posterior half or slightly more, not distinctly impressed, the apex with a very small triangular notch about as deep as wide, only about a fifth as wide as the apex, the angle of the notch not distinctly rounded, the lobes of the segmental apex rounded, the notch apparently somewhat asymmetric, the right side — proceeding from the segmental base — being more divergent than the left; female unknown. Length 5.3 mm.; width 0.85 mm. North Dakota (Devil's Lake).....*vagans* n. sp.
- Antennae thick but filiform, not appreciably incrassate distally, only very slightly longer than the head and prothorax in the female, the medial joints nearly as in *vagans*; coloration as in that species; head small, nearly as in *vagans* throughout; prothorax rather large, distinctly wider than the head and longer than wide, the sides parallel, broadly arcuate, more rounded posteriorly and narrowed toward base as usual, the punctures small but deep and distinct, sparse; elytra much elongated, the sides subparallel, two-fifths wider and longer than the prothorax, the punctures very fine and feeble, inconspicuous, widely set in unimpressed series, confused toward tip; abdomen parallel, densely dull, much narrower than the elytra. Male unknown. Length 5.7 mm.; width 0.9 mm. Nevada (Elko), — Mr. Wickham.....*habilis* n. sp.
- 7 — Male sexual characters of the *collaris* type, a small triangular notch at

- the apex of the sixth ventral, the surface not obviously impressed.... 8
- Male sexual characters more pronounced, the notch of the sixth ventral larger and deeper, the surface impressed..... 9
- 8—Antennae more slender than in *collaris*, gradually, rather distinctly incrassate distally, much longer than the head and prothorax, the medial joints distinctly less than twice as long as wide; body decidedly more slender than in any of the preceding species, colored nearly as in *collaris*, the elytra more piceous, the abdomen dark and fuscous, scarcely paler at tip; head nearly as in *habilis*, the punctures rather small and very sparse; prothorax distinctly elongate and wider than the head, the sides parallel, evenly arcuate throughout, not more converging toward base, the apical and basal angles almost equally rounded; punctures very fine, sparse and inconspicuous; elytra much elongated, parallel, scarcely a fourth wider and about a third longer than the prothorax, the punctures very fine but distinctly impressed, not close-set in almost wholly unimpressed series; abdomen slender but only slightly narrower than the elytra, densely dull. Male unknown; female with the sixth ventral obtuse and very broadly ogival at tip. Length 5.0 mm.; width 0.8 mm. Virginia (Fredericksburg).....*merens* n. sp.
- Antennae as in *merens* but longer, stouter and much more strongly incrassate distally, extending nearly to the middle of the elytra; body still more slender, almost similarly colored, the head black, the prothorax bright testaceous, the elytra darker piceo-testaceous, the abdomen blackish, rufescent toward tip; legs and antennae pale; head nearly as in *merens* but with the basal angles very much more broadly rounded; prothorax similar but larger, distinctly elongate and wider than the head, parallel, the sides evenly and feebly arcuate, the four angles subequally rounded; punctures equally fine and sparse, except in the series along the median smooth area, where they are larger, the series distinctly impressed, except very near the base and toward apex; elytra subparallel, elongate, barely a fifth wider, and a fourth longer than the prothorax, the punctures small and arranged in broadly and distinctly impressed series; abdomen narrower than the elytra, minutely, densely punctulate but less dull than in some other species. Male with the fifth ventral wholly unmodified, the sixth narrowly glabrous and subimpressed along the middle, the apex with a triangular notch, much wider than deep, fully two-fifths as wide as the apex, gradually formed and with its anterior angle slightly blunt, the notch evidently eccentric and asymmetric, being situated slightly to the right of the centre and having its right side much more widely diverging than the left; female not known. Length 5.4 mm.; width 0.78 mm. North Carolina (Asheville).
- aemula* n. sp.
- 9—Body rather slender, fusiform, the head and abdomen piceous-black, the latter not rufescent at tip; prothorax dark testaceous to piceous, the elytra blackish-piceous, sometimes paler along the suture and at base; legs and antennae testaceous; head just visibly narrowed from the eyes to the moderately rounded basal angles, the sides straight; eyes well developed, the punctures rather coarse, very sparse; antennae extending to basal third of the elytra, rather stout, moderately incrassate, the medial joints scarcely more than one-half longer than wide;

- prothorax obviously elongate, much wider than the head, the sides parallel and straight, the basal angles rather more rounded than the apical, the punctures fine, very sparse, larger and more close-set in the unimpressed series limiting the medial smooth space; elytra elongate, a fourth to fifth wider and a third to fourth longer than the prothorax, subparallel at the sides, the punctures fine and not close-set, arranged in unimpressed series; abdomen distinctly narrower than the elytra, densely punctulate and dull. Male with a very small, extremely shallow sinus at the middle of the apex of the fifth ventral, the sixth strongly impressed along the middle, the impression rather abruptly limited laterally, gradually narrowing from the apex and disappearing near basal fourth, the apex with a large deep and abruptly formed triangular notch, two-fifths as wide as the apex and fully one-half deeper than wide, with its angle narrowly rounded, the notch wholly within the impression, which extends narrowing along its sides to the apex, the apical lobes narrowly rounded; female with the sixth ventral obtusely rounded at tip. Length 4.5 mm.; width 0.75 mm. Mississippi (Vicksburg).
- modesta* n. sp.
- 10—Eyes of normal size and prominence, situated at distinctly less than twice their own length from the base..... 11
- Eyes notably smaller than usual, situated at about twice their own length from the base..... 12
- 11—Body rather slender, the head black, the prothorax pale testaceous, the elytra pale flavo-testaceous, with a small piceous cloud at the scutellum; abdomen blackish, rufescent in apical third; legs and antennae pale; head rather wider than long, very sparsely punctate, the sides parallel; angles only moderately rounded; antennae rather stout, moderately incrassate distally, extending to basal third of the elytra, the medial joints less than one-half longer than wide; prothorax oblong-elongate, parallel, just visibly wider than the head, the punctures small but distinct, sparse, somewhat larger and close-set in the series bounding the medial smooth area; elytra evidently longer than wide, the sides diverging throughout and straight, fully two-fifths wider and longer than the prothorax, finely, very sparsely punctate, the punctures arranged in unimpressed series; abdomen rather wide, but little narrower than the elytra, minutely, closely punctulate but only moderately dull in lustre. Male unknown; female with the sixth ventral narrowly and strongly rounded at tip. Length 4.2 mm.; width 0.7 mm. New York (near the city).....*fragilis* n. sp.
- Body somewhat more slender; head obscure testaceous to piceous-black, the prothorax and elytra pale flavo-testaceous, the latter with a rounded piceous cloud about the scutellum; abdomen fuscous, paler toward tip, the legs and antennae pale; head as in *fragilis* but narrower and as long as wide, the basal angles still more narrowly rounded; antennae longer and more slender, extending fully to the middle of the elytra, only very feebly incrassate distally, the medial joints rather more than one-half longer than wide; prothorax narrower and relatively more elongate, subparallel and straight at the sides, only very slightly wider than the head, punctured as in *fragilis*; elytra similar in form though relatively larger, more strongly and closely punctate, nearly one-half wider and

two-fifths longer than the prothorax; abdomen narrower, more densely punctulate and dull, distinctly narrower than the elytra. Male with the fifth ventral wholly unmodified, the sixth elongate-ovigal in form, the very narrow apex with a minute and circularly rounded, very abruptly formed emargination, a third wider than deep, the lobes of the apex acute and not rounded, the surface adjacent with an ill-defined but distinct impression along the median line, strongest at apex and disappearing at two-fifths from the base; female nearly as in *fragilis*. Length 4.0 mm.; width 0.68 mm. Pennsylvania, Indiana and Mississippi (Vicksburg).....*rubida* n. sp. (Fvl. MS.)

12—Head slightly wider than the prothorax. Body very slender, the head and prothorax piceous-black, the elytra testaceous, with a piceous scutellar cloud; abdomen blackish, rufescent at tip, the legs and antennae pale; head well developed, sparsely, rather coarsely punctate, parallel at the sides, the angles rather broadly rounded; eyes very small, at two and one-half times their length from the base; antennae moderate, slightly incrassate, the medial joints scarcely one-half longer than wide; prothorax narrow and notably elongate, the sides just visibly converging throughout and straight, the punctures sparse but rather coarse, very close-set in a single impressed series at each side of the medial smooth area; elytra narrow and elongate, the sides straight, only just visibly diverging, the punctures fine, sparse, arranged in unimpressed series; abdomen not quite parallel, at base distinctly narrower than the elytra, but, posteriorly, fully as wide as the latter, finely but not very densely punctulate and feebly shining. Male with the fifth ventral wholly unmodified, the sixth broadly obtuse at tip, with a parabolic and gradually formed sinus, a third as wide as the apex, twice as wide as deep and symmetric, the adjoining surface narrowly and feebly impressed along the middle for a short distance; female unknown. Length 4.7 mm.; width 0.68 mm. Iowa.....*famelica* n. sp.

Head more or less distinctly narrower than the prothorax.....13

13—Form slender, subparallel, slightly depressed, pale testaceous throughout, the elytra sometimes clouded with piceous toward, but not attaining, the suture; head and abdomen piceous or black, the latter rufescent toward tip; head parallel at the sides, very sparsely punctate, the basal angles not broadly rounded; eyes at very slightly less than twice their own length from the base; antennae rather thick, extending nearly to the middle of the elytra, feebly incrassate, the medial joints barely one-half longer than wide; neck distinctly more than half as wide as the head; prothorax elongate, narrow, parallel, the sides straight, punctured as in *rubida*; elytra elongate, the sides feebly diverging and straight, two-fifths wider and fully a third longer than the prothorax, the punctures moderate, impressed, rather close-set in scarcely impressed series; abdomen narrower than the elytra, subequal thereto posteriorly, densely punctulate and dull. Male with the sixth ventral nearly as in *rubida*, the apex slightly more obtuse, the notch a little larger and twice as wide as deep and the impression of the surface broader, feebler and less defined. Length 4.2 mm.; width 0.7 mm. Iowa and Lake Superior.....*ambigua* Lec.

Form slender, parallel, nearly similar to the preceding but more convex,

blackish-piceous, the prothorax but slightly paler; elytra with a piceous scutellar cloud; abdomen rufescent at tip, the legs and antennae pale; head larger, coarsely and rather less sparsely punctate, parallel, the basal angles moderately rounded; eyes at twice their length from the base; antennae rather slender, nearly half as long as the body, feebly incrassate distally, the medial joints two-thirds longer than wide; prothorax elongate, scarcely visibly wider than the head, subparallel, all the angles well rounded, the punctures fine, sparse, more distinct and rather unevenly crowded in the feebly impressed series along the medial smooth area; elytra elongate, the sides straight and very feebly divergent, about a fourth wider and scarcely a third longer than the prothorax, punctured nearly as in *ambigua*; abdomen parallel, subequal in width to the elytra, finely but strongly, densely punctulate and rather dull. Male unknown; female with the sixth ventral very broadly rounded and obtuse at tip. Length 4.3 mm.; width 0.68 mm. Indiana? (Cab. Levette).

Integra n. sp.

Form slender and parallel, normally convex, larger than the two preceding, pale and bright testaceous in color, the head and abdomen black or slightly piceous, the latter rufescent at tip; head very sparsely, rather coarsely punctate, parallel, the basal angles rather well rounded; eyes at slightly less than twice their own length from the base; antennae moderately long and slender, only just visibly incrassate, the medial joints three-fourths longer than wide; neck one-half as wide as the head; prothorax oblong, parallel, the sides straight, all the angles rounded, distinctly elongate and slightly wider than the head, the punctures rather small but strong, only moderately sparse, not larger and only indistinctly seriate along the median smooth space; elytra slightly elongate, parallel and straight at the sides, a third wider and one-fourth longer than the prothorax, the punctures fine but distinct, rather close-set in very feebly impressed narrow series; impression along the sutural bead narrow but deep and conspicuous; abdomen subparallel, narrower than the elytra, finely, densely punctulate though slightly shining. Male unknown; female with the sixth ventral broadly rounded at tip. Length 5.2 mm.; width 0.78 mm. North Carolina (Asheville).....*angustula* n. sp.

The eccentricity and asymmetry of the secondary male sexual modifications seems to be a reality in many species of this genus, for it is unlikely that abnormalities of this kind would occur with such uniformity and with such constancy of character. In this connection the reader is referred to a pronounced asymmetry in the secondary sexual characters of *Palaminus*, alluded to some years ago by the writer. There are four quite distinct types of male sexual characters in *Lathrobiella*: first the usual triangular notch of the *ventralis* and *collaris* groups, also appearing in *aemula* and probably *merens*; second the more strongly marked modifications characterizing *modesta*—

rather a singular circumstance in view of the notable external similarity of this species to *aemula*; third the rounded sinus of *famelica*, and, fourth, the pointed sixth segment with very minute notch observable in *ambigua*, *rubida* and probably *fragilis*, these last species differing from the others also in the much more widely diverging gular sutures, less pronounced difference between the first and second joints of the hind tarsi and more depressed form, — so that they probably constitute at least a subgenus. The grouping in the table is arbitrary and based solely upon general habitus, in order to facilitate identification. The *ambigua* group, for example, contains several discordant elements.

Of the species allied to *collaris*, as given above — these being likely to prove most troublesome to the identifier, — it may be stated in short that *gracilicornis* is distinguished by its longer antennae, *oregonensis* by its larger and broader elytra, *follax* by the strong pronotal sculpture, *vagans* by sexual differences in the male and rather more slender form, and, *habilis*, by its almost completely non-incrassate antennae and very feeble elytral sculpture. There are other forms which appear to be offshoots of the *collaris* stem, but at present it would serve no useful purpose to describe them. *Collaris* is an abundant species, widely diffused through the northeastern parts of America and is one of the few plicate Lathrobiids thus far known to occur in the New England states.

Tricolor was stated some years ago by Dr. Horn to be a synonym of *ventralis* Lec., but I am by no means certain of the correctness of this synonymy, the unique type of *ventralis* differing considerably in color. Additional comparisons are desirable. The above description is drawn from the original types of *tricolor*.

Microlothra n. gen.

The few species assignable to this genus are readily distinguishable from those of *Lathrobiella* by the more parallel form, uniformly pale coloration, larger subpyriform head, with very small eyes and a general habitus which strongly recalls

Lathrobioma of the non-plicate series. It is probable that both of the known species are found with ants, at least at certain seasons, for a specimen of *pallidula*, given me by the late Mr. Jülich, was said to have been taken by him in an ant's nest. The degree of intimacy between various beetles and ants of course varies greatly, and, in many Staphylinids, such as those under discussion, there is but little evidence of true symbiosis, or it may be said at least, that the degree of association has not been carried sufficiently far to have modified their structure to any noticeable extent. The eyes, it is true, are unusually small, but they are perfectly formed and probably perform the full function of eyes as in other genera. The two species in my cabinet may be briefly described as follows: —

Form slender, parallel, pale testaceous throughout, polished; head as long as wide, very slightly enlarged toward base, the sides broadly arcuate; angles broadly rounded, the punctures not very coarse, sparse; eyes at fully three times their own length from the base; antennae rather thick, slightly longer than the head and prothorax, gradually and distinctly incrassate, the medial joints less than one-half longer than wide; prothorax somewhat narrower than the head, longer than wide, the sides very feebly converging from the distinct apical angles, sometimes broadly and feebly sinuate anteriorly, the basal angles rounded, the punctures fine, very sparse and feeble, sparsely subserial along the median smooth area; elytra slightly shorter than wide in the male and but little longer in the female, distinctly shorter than the prothorax in both sexes and obviously wider, the sides straight and strongly diverging, the punctures very fine, sparse and feeble, obscurely subserial in arrangement; abdomen at base as wide as the elytra or nearly so, distinctly wider posteriorly, finely, not densely punctulate and somewhat shining. Male with the fifth ventral wholly unmodified, the sixth broadly obtuse at tip, with a small simple subtriangular and gradually formed emargination, three times as wide as deep and a third as wide as the apex, the lobes of the latter broadly, feebly rounded; female with the sixth ventral evenly and strongly rounded at tip. Length 4.1 mm.; width 0.68 mm. Massachusetts (Lowell) and New York (Staten Island).....*pallidula* Lec.

Form still more slender, with smaller head and prothorax and much larger elytra; coloration and lustre similar; head fully as long as wide, rather finely, moderately sparsely punctate, broadening slightly toward base, the sides broadly arcuate, the angles widely rounded; eyes at three times their length from the base; antennae extending to basal third of the elytra, nearly as in *pallidula*; prothorax elongate, equal in width to the head, parallel, the sides very feebly arcuate; anterior angles distinct, the posterior narrowly rounded; punctures fine, feeble and

very sparse, forming a widely-set series along the median smooth space; elytra subparallel, distinctly longer than wide, a fourth longer and fully a fourth wider than the prothorax, the punctures small and sparse but arranged in widely and feebly impressed series; abdomen distinctly narrower than the elytra, subparallel, finely, not densely punctulate. Male unknown; female with the sixth ventral evenly and rather strongly rounded behind. Length 4.1 mm.; width 0.66 mm. Pennsylvania.....*rutilans* n. sp.

Neither of these species seems to be at all common and I have but four examples altogether.

Dacnochilus Lec.

The general habitus of this genus is similar to that of *Linolathra* and the coloration of the body also reminds us of the small slender species so named above. There are many structural features, also, that prove the very close relationship existing between the two genera, such as the hind tarsi, angular sutures and disposition of the elytral punctures. *Dacnochilus* differs especially in the form of the labrum, in the short obtrapezoidal form of the prothorax and presence of long stiff tactile setae bristling at the sides of the body — so greatly developed in *Acalophaena*. We have, as far as known, but a single species as described below: —

Form slender, convex and parallel, polished, pale testaceous throughout, except about basal half of the elytra, which is abruptly black; head well developed, wider than long, with a few coarse impressed punctures near the sides, the latter feebly diverging behind the eyes and slightly arcuate, the angles narrowly rounded; eyes large, prominent, at about a third more than their own length from the base; antennae distinctly longer than the head and prothorax, rather slender basally but gradually strongly incrassate distally, the medial joints less than one-half longer than wide; prothorax obtrapezoidal, distinctly wider than long, equal in width to the head, the sides very feebly arcuate, the anterior angles narrowly rounded, the basal more broadly, the punctures rather small, very widely scattered toward the sides anteriorly and widely spaced in a single series at each side of the median smooth area, elsewhere wanting; elytra not quite as long as wide, parallel, the sides feebly arcuate posteriorly, slightly wider and longer than the prothorax, the punctures fine and feeble, widely spaced in a very few widely separated series, each puncture bearing a stiff hair; abdomen behind the middle as wide as the elytra, slightly narrower at base, finely, very sparsely punctulate and polished. Male with the fifth ventral unmodified, except a small

and very feeble sinuation at the middle of the apex; sixth narrow, with a circularly rounded apical sinus, four or five times as wide as deep and half as wide as the apex, the edge finely beveled, the surface conically and moderately impressed along the middle before the sinus, the impression not abruptly formed and glabrous; female with the sixth ventral conical, transversely sinuato-truncate at tip. Length 5.5 mm.; width 0.85 mm. Texas (Galveston).....*laetus* Lec.

Other species of this genus occur in Mexico. The pleural fold of the elytra characterizing the preceding genera appears to be wholly obsolete in *Dacnochilus*, but the fine carina delimiting the epipleurae proper is well developed. In *Acalophaena* there is a feeble vestige of the pleural fold posteriorly.

Acalophaena Shp.

This remarkable genus, although evidently related to *Dacnochilus*, is much more highly specialized. The body is singularly compact longitudinally, broadly convex, with a relatively narrower neck than in *Dacnochilus* and with the abdomen densely punctulate, in striking contrast to that genus; the antennal joints are less narrowed toward base than usual or may be said to be almost subcylindric and the basal joint is not of the usually elongate cylindrical form, but is shorter and strongly compressed. Our only species known to me is the following: —

Form very broad, convex, polished, bristling with long setae at the sides, pale testaceous throughout, except the abdomen, which is infusate; head very transverse, trapezoidal, the sides strongly diverging to the narrowly rounded basal angles and almost straight; base very broad, truncate; eyes rather small, not prominent, at nearly twice their own length from the base, the punctures wholly wanting, except a few, small in size, sparsely scattered at the extreme sides; antennae very slender, only slightly incrassate, rather compact, as long as the head and prothorax, the latter not quite twice as wide as long, the sides slightly converging from apex to base and evenly arcuate; anterior angles distinct, the posterior broadly rounded; base and apex truncate; surface wholly sculptureless, except a few small punctures near the side margins, especially anteriorly; elytra two-thirds wider than long, the sides straight, slightly diverging at apex, slightly wider than the prothorax and nearly two-fifths longer; suture not beaded; surface not impressed along the suture, wholly sculptureless, except a few small punctures serially arranged at the extreme sides; abdomen short and broad, as wide as the

elytra, the sides converging rapidly from base to apex and broadly arcuate; segments very short; surface finely, densely punctulate and dull. Male unknown; female with the sixth ventral narrow, transversely truncate at tip. Length (contracted) 3.2 mm.; width 1.0 mm. Arizona. *compacta* n. sp.

There are other species of this genus in northern Mexico* but I do not know of any additional from our own territories. *Acaloph ena* was proposed by Dr. Sharp as a substitute for the preoccupied name *Calophaena* Arrib., (Bol. Acad. Nac., vii, p. 270), founded upon the Argentine *basalis* Arrib. The Mexican *angularis* Er. and the South American *polita*, *pagana*, *germana* and *picta*, of Sharp, included by Dr. Sharp, differ greatly from the two species here described in their slender form and relatively broader neck, and it is probable that they will prove to be generically different. It is a remarkable fact that *compacta* and *horridula* agree much more closely with *basalis*—the type of the genus—than those just mentioned. The very short compact form and unusual facies of *compacta* and *horridula*, would seem to indicate some specialized or restricted life habits, such for example as a termitophilous symbiosis, which is also ascribed by Arribáizaga to the typical *basalis*, while *angularis* and the others allied thereto, probably have habits not differing in any way from those of *Dacnochilus*.

LITHOCHARES.

The densely punctulate and dull sculpture, together with certain habital features of this subtribe, gives to the species a superficial similarity to the Medones—so much so that the genus *Lithocharis* has been included by Heyden, Reitter and

* One of these may be described as follows:—

Form and structure throughout as in *compacta* but larger, pale testaceous throughout, except the head and elytra which are black, the apex of the latter very narrowly—but more broadly toward the sides—testaceous; sculpture and tactile setae similar to those of *compacta*, the abdominal punctulation less dense and with the surface shining, each segment with a transverse median series of erect stiff setae not evident in *compacta*. Length. 4.4 mm.; width 1.2 mm. Mexico (Vera Cruz)....*horridula* n. sp.

Weise as a subgenus of *Medon*. They differ radically from the Medones, however, in the structure of the prosternum under the coxae, this sclerite ending posteriorly in an acute free point, coming far from attaining the mesosternum and formed as in the Lathrobia. The labrum, also, differs from anything known in the Medones and in fact is subtribally distinctive, for, although in several other subtribes, such as the Paederi and Medones, we occasionally observe a short sharp denticle at the bottom of the median emargination, there is no other group in which the median tooth becomes the most conspicuous feature or formed as it is here. In short, the distinctive character of the labrum in the Lithochares is a median tooth, without trace of lateral denticulation, while in the Medones it is the development of lateral teeth and absence of anything but a rarely observable and wholly different medial denticle. The Lithochares agree with the Medones, however, in having the anterior tarsi either dilated or undilated, departing from the uniformly dilated condition of the Lathrobia. We have but two genera as follows:—

Form rather stout, parallel, larger in size, moderately convex, finely, densely sculptured and dull in lustre; head oblong, well developed, broadly sinuato-truncate at base; eyes moderately large, not very prominent; labrum well developed, broadly arcuato-truncate, with a short, obtuse and dorsally swollen median tooth, not projecting beyond the general line of the apex and bordered at each side by a small emargination; gular sutures well separated anteriorly, gradually converging and most approximate and narrowly separated at the base; ligula densely fimbriate at tip with broad obtuse strigose and submembranous spicules; paraglossae compressed; labial palpi slender and elongate; maxillary palpi slender, elongate, the third joint elongate-oval, with the apical cavity small, the fourth joint very slender and aciculate, not very oblique; antennae slender, filiform, moderate in length, the joints obconical; neck barely two-fifths as wide as the head; prothorax obtrapezoidal, broadly produced in the middle at apex, truncate at the neck; prosternum short before the coxae; elytra well developed, longer and wider than the prothorax; abdomen with the segments only feebly impressed at base; legs slender, the anterior tarsi moderately dilated, densely padded beneath, the posterior three-fourths as long as the tibiae, with the first joint much longer than the second and subequal to the fifth, nearly as in *Dolichon*. America.. *Aderocharis*

Form rather more slender, less parallel, the head small, finely, densely dull in sculpture throughout; head broadly arcuato-truncate at base, the eyes large and conspicuous; labrum as in *Aderocharis* but with the

sinuation at each side of the median tooth broader and feebler; antennae, gular sutures and palpi similar; ligula densely fimbriate at tip with about six stout membranous spicules; neck scarcely more than a third as wide as the head; prothorax subquadrate; prosternum rather short; elytra large and well developed; abdomen narrower, the segments narrowly and feebly impressed at base; legs slender, the anterior tarsi not dilated, the posterior slender and shorter, the first joint only slightly longer than the second, equal to the fifth, the first four decreasing uniformly in length. Cosmopolitan. [= *Metaxyodonta* Csy.].

Lithocharis

The known species of these genera are comparatively few in number.

Aderocharis Shp.

This genus is rather well represented in Mexico by several species, but only one occurs widely distributed within our territories as follows: —

Body broad, parallel, only very moderately convex, dark red-brown in color throughout, the head black or blackish; surface throughout rendered very dull in lustre by fine, densely placed but not confluent punctures, which are granuliform on the elytra; head not quite as long as wide, parallel, the sides feebly arcuate, the angles rather narrowly rounded; eyes at nearly twice their length from the base; antennae scarcely as long as the head and prothorax, the latter not quite as wide as the head, slightly wider than long, with the sides distinctly converging from the very distinct apical, to the broadly rounded basal, angles, and straight; median impunctate line very fine but entire; elytra quadrate, parallel, a fourth wider and longer than the prothorax; abdomen parallel, nearly as wide as the elytra. Male with the fifth ventral just visibly sinuate toward the middle of the apex, the sixth broad, angularly emarginate throughout its entire width at apex, the emargination some seven times as wide as deep, with the angle only slightly rounded; seventh unusually developed, finely, longitudinally slit beneath nearly throughout its length; female with the sixth ventral rather narrowly and strongly rounded at tip. Length 6.5 mm.; width 1.3 mm. Pennsylvania, Virginia, North Carolina (Asheville), and Iowa.....

corticina Grav.

This species is moderately abundant and displays little or no variability.

Lithocharis Lac.

The species of this genus are but few in number, and, in several instances, cosmopolitan in distribution, being probably

continually transported in articles of commerce, as there is no variation, even of a varietal nature, to denote long establishment in any particular locality, but, whether originating in America or Europe, is a question not yet solved; the probabilities are that the genus was originally exclusively American. The three species in my cabinet may be readily known as follows from the male: —

Male with a fringe of short black spinules in median third of the fifth ventral. Body moderately slender, subfusiform, feebly convex, pale brown throughout and dull in lustre, the head black; punctures fine and extremely close-set, subgranuliform on the elytra; head rather wider than long, subparallel at the sides, the angles rather broadly rounded; eyes at not quite their own length from the base; antennae somewhat longer than the head and prothorax, the latter slightly wider than the head, a little wider than long, the sides parallel and feebly arcuate; base and apex broadly, equally and subevenly arcuate, the angles obtuse but only slightly rounded; median smooth line obsolete; elytra quadrate, parallel, two-fifths wider and longer than the prothorax; abdomen parallel with the sides broadly arcuate, narrower than the elytra throughout. Male with a large subparabolic emargination, much wider than deep, occupying the entire width of the sixth ventral, the surface along each side of the sinus broadly, feebly impressed and bearing a dense tuft of long pale hairs; apex of the fifth transversely truncate, the spinules in median third turned inward. Length 8.7 mm.; width 0.7 mm. America (from the Atlantic to the Pacific) and Europe. [= *Metaxyodonta alutacea* and *quadricollis* Csy.].

ochracea Grav.

Male without trace of median spinules at the apex of the fifth ventral.. 2
2 — Form similar to *ochracea*, the size somewhat smaller; coloration, lustre and sculpture similar; head similar to that of *ochracea*, the eyes large and at distinctly less than their own length from the base; gular sutures similarly strongly impressed but rather less approximate, being well separated; prothorax equal in width to the head, similar in form to that of *ochracea*; elytra large, quadrate, parallel, two-fifths wider and longer than the prothorax; abdomen arcuate at the sides behind the middle, scarcely narrower than the elytra. Male with the fifth ventral very feebly sinuate toward the middle of the apex; sixth with a large parabolic sinus, wider than deep, occupying the entire width, the surface at the sides not impressed, the lateral edges of the sinus bristling with very long close-set hairs. Length 2.9 mm.; width 0.62 mm. Southern California, — Mr. Fall.....**simplex** n. sp.
Form more slender, the size still smaller, darker and more piceous in color with the head black, but similarly dull in lustre and densely punctulate; head fully as long as wide, parallel and nearly straight at the sides, the angles similarly moderately rounded; eyes much smaller, at distinctly more than their own length from the base; antennae more slender and much shorter, not as long as the head and prothorax;

gular sutures less impressed, more approximate toward base; prothorax differing greatly in form, about as long as wide, the sides feebly converging from the base to the apex and slightly arcuate; apex more strongly arcuate than the base, the apical angles very obtuse and rounded, a little wider than the head; elytra slightly longer than wide, subparallel, two-fifths wider and nearly one-half longer than the prothorax, paler at the sides than on the disk; abdomen distinctly narrower than the elytra throughout. Male with the fifth ventral truncate at apex and unmodified, the sixth much narrower, rectilinearly truncate at tip and otherwise unmodified. Length 2.7 mm.; width 0.6 mm. Arizona.....*sonorica* n. sp.

The female in both *ochracea* and *simplex* has the apex of the sixth ventral broadly angulate, with the angle more or less rounded. The single specimen of *sonorica* before me has the apex of the sixth ventral truncate, and, as the sexual modifications are so simple, it may in reality be a female, but in any event it is a remarkably distinct species. The concealed ligula of the seventh ventral in *Lithocharis*, is spatuliform, narrowed toward tip, and densely clothed with silvery pubescence.

The Henshaw catalogue (3rd suppl., p. 10) lists a *Lithocharis debilis* Woll. I have been unable to find any such species described. The *debilis* of Erichson (Gen., p. 625) inhabits Colombia and the description does not correspond with any of our species as given above.

MEDONES.

The multitude of small species of more or less monotonous appearance, composing this group, are rather difficult to classify in a satisfactory manner, owing to the fact that the male sexual characters are usually simple and but slightly varied; the genus *Paramedon*, however, offers a very welcome exception in this regard. The group is much more highly developed in America than in Europe, comprising the following nineteen genera within the limits of the United States, only two of which — *Neomedon* and *Sciocharis* — are certainly known to extend for any great distance into Mexico: —

Gular sutures completely fused, forming a single coarse suture from the angulate post-mental piece to the base..... 2

Gular sutures always separated, sometimes very feebly impressed and occasionally altogether effaced and traceable only by differences in sculpture between the intersutural region and the remainder of the under surface of the head..... 3

2 — Labrum short and very broad, truncate, broadly, feebly sinuate at the middle and having six very small teeth or tooth-like undulations; species very large in size for the present group; paraglossae coarsely and angularly bilobed; palpi normal, the third joint of the maxillary fully a third longer than the second; eyes moderate; antennae rather thick, filiform, the third joint very much longer than the second; prosternum feebly and obtusely carinate posteriorly; tarsi moderately slender, the basal joint of the posterior distinctly longer than the second, the anterior distinctly dilated and spongy beneath in both sexes; integuments shining, simply and rather coarsely punctate, the neck one-half as wide as the head; male ventral characters very slight. Sonoran.....*Neomedon*
Labrum narrower, more rounded, with four acute and well developed teeth and a small median notch, which is acutely denticulate at the bottom; species moderate in size; paraglossae of the usual form, acutely bilobed; ligula setose at tip; eyes rather small; palpi normal; antennae rather thick, filiform, the third joint only slightly longer than the second; prosternum acutely carinate posteriorly; tarsi rather short and thick, the basal joint of the posterior much longer than the second, the anterior thickened but scarcely dilated; integuments very densely dull, the sculpture rather coarse and extremely dense; neck rather narrow, from rather more than a third to two-fifths as wide as the head; male unknown. Sonoran.....*Polymedon*

3 — Labrum bidentate..... 4

Labrum quadridentate..... 13

Labrum without teeth, though having the usual small median notch..... 18

4 — Antennae with the two basal joints normally thick, the remainder very slender, filiform and verticillate; labral teeth small but distinct and approximate, the notch small; species generally dull in luster, with close fine sculpture..... 5

Antennae normal, equally or subequally thick throughout, sometimes feebly enlarged toward tip..... 6

5 — Gular sutures moderately separated, gradually converging and most narrowly separated toward base; eyes more or less well developed, the neck rather broad but usually less than half as wide as the head; prosternum not carinate except posteriorly; tarsi moderately short and somewhat thick, the basal joint of the posterior distinctly longer than the second, two to four decreasing in length, the anterior more or less distinctly dilated; species very numerous, small in size, always rather distinctly punctured, the male sexual characters simple, the fifth segment scarcely modified. South America to the warmer parts of North America.....*Sciocharis*

Gular sutures very widely separated and most approximate anteriorly, thence widely diverging to the base of the head; eyes rather small; neck nearly half as wide as the head; prosternum not at all carinate; tarsi short and moderately thick, the first joint of the posterior distinctly longer than the second, two to four equal and about as long as

- wide, the anterior not in the least dilated or thickened; species very minute, not distinctly punctured; male sexual characters nearly as in *Sciocharis*, except that the apex of the fifth segment is lobed in the middle. Southern Atlantic States.....**Sciocharella**
- 6—Labral teeth small and inconspicuous; prosternum never carinate throughout its length except in a few abnormal members of *Medon*.. 7
Labral teeth long, acute and very conspicuous; prosternum carinate throughout its length; gular sutures converging and most narrowly separated basally.....12
- 7—Basal joint of the posterior tarsi equal in length to the second, the first four short and subequal, the anterior very slightly dilated; palpi normal; gular sutures rather narrowly separated, evenly, feebly arcuate, very rapidly diverging at base, most narrowly separated at a little before the middle; antennae rather thick, gradually enlarged distally; the third joint distinctly longer than the second; eyes moderate; neck about half as wide as the head; prosternum not at all carinate at any point; integuments very coarsely, densely sculptured and dull, the species small in size. Nearctic regions, east of the Rocky Mountains.
- Trachysectus**
- Basal joint of the hind tarsi distinctly longer than the second, the tarsi more elongate.....8
- 8—Labrum with a rather broad sinus at the middle including the two teeth, which are very small and not as anteriorly prominent as the sides of the labrum; species small, with the elytra very small, shorter and narrower than the prothorax; eyes rather small; neck two-fifths as wide as the head; gular sutures well separated and subparallel but obsolete or very feeble; antennae short, moderately thick, filiform, not enlarged distally, the basal joint thicker than the remainder; prosternum rather strongly carinate except anteriorly; posterior tarsi very slender and filiform, the anterior slightly dilated; integuments rather coarsely, densely sculptured and dull. Appalachian region.....**Hemimedon**
- Labrum with a narrower median notch, the two teeth more advanced than the lateral parts of the edge and not included within the sinus.....9
- 9—Anterior tarsi not dilated but only more or less strongly thickened; sexual characters very feeble.....10
- Anterior tarsi strongly dilated, especially in the male; sexual characters strongly marked.....11
- 10—Gular sutures distant, broadly arcuate, becoming very widely divergent toward base and most narrowly separated well before the middle; species small, slender in form, polished and sparsely punctate, the elytra subequal to the prothorax in size; antennae moderately thick, somewhat enlarged distally; labrum very broadly, angularly emarginate, with a small feeble median sinus, the teeth very minute; eyes rather well developed; neck a little less than half as wide as the head; anterior tarsi spongiolate beneath in both sexes; hind tarsi slender and filiform. Europe.....***Hypomedon**
- Gular sutures of the same form as in *Hypomedon* but subobsolete; species minute, slender, polished and sparsely, rather coarsely punctate, the elytra shorter than the prothorax; antennae normal in structure; labrum small, truncate, with a distinct rounded median sinus and two well

- developed aciculate teeth; eyes very small; neck barely two-fifths as wide as the head; anterior tarsi scarcely thickened, not at all spongiolate beneath; hind tarsi very slender, filiform. Europe.....***Micromedon**
- Gular sutures more or less approximate, gradually converging and most narrowly separated near the base of the head; species small to moderately large in size, generally very finely, rather closely punctured and only moderately shining; eyes very small; antennae moderately thick, gradually enlarged distally; neck about two-fifths as wide as the head; hind tarsi moderately slender. Palaearctic and Nearctic regions..**Medon**
- 11—Gular sutures converging and most narrowly separated basally; species small or moderate in size, of rather stout form, shining, the punctures fine and well separated; antennae as in *Medon*; eyes well developed; neck rather wide, almost half as wide as the head; prosternum only carinate at the posterior cusp; elytra larger than the prothorax; posterior tarsi moderately slender. Pacific coast regions....**Paramedon**
- 12—Body moderately small in size, very slender, dull in lustre but not distinctly punctate, parallel, the elytra subequal to the prothorax; gular sutures widely separated; paraglossae coarsely, angularly bilobed, the ligula simple at apex; palpi nearly normal, the second joint of the labial compressed, the fourth joint of the maxillary small; antennae moderate in length, slender, filiform, not appreciably enlarged distally, the third joint but little longer than the second, the first rather longer than the next two combined though but little thicker; eyes very small; neck unusually narrow, scarcely a third as wide as the head; prosternum strongly carinate. Sonoran.....**Medonodonta**
- Body somewhat stout and more convex, moderately large in size, polished, strongly but not densely punctured; gular sutures narrowly separated; oral organs nearly as in the preceding, the eyes well developed; antennae long, rather slender, feebly enlarged distally, the third joint distinctly longer than the second, the first somewhat elongate but not much thicker; neck two-fifths as wide as the head; elytra larger than the prothorax; hind tarsi rather longer than usual, moderately slender, the anterior noticeably dilated. Pacific coast regions.....**Oxymedon**
- 13—Gular sutures rather approximate, converging, most narrowly separated basally. Body moderately small in size, subdepressed, rather stout, subalutaceous, very finely, rather closely punctured, the elytra much larger than the prothorax; lobes of the paraglossae rather obtuse at apex; third maxillary palpal joint unusually inflated, somewhat compressed and scarcely longer than the second; antennae rather thick, feebly enlarged distally, the third joint but little longer than the second; eyes moderately developed; neck scarcely two-fifths as wide as the head; prosternum carinate; posterior tarsi short and rather thick, the first joint almost as long as the next two combined, the anterior distinctly dilated; labrum with four large and conspicuous acute teeth, the small deep rounded median notch with a minute obtuse denticle at the bottom, the structure throughout nearly as in *Polymedon*. Appalachian region.....**Tetramedon**
- Gular sutures more or less widely separated, parallel or broadly arcuate, becoming more widely divergent basally.....14
- 14—Labrum with a small rounded median notch limited by the two inner

- teeth, which are long, very acute and prominent, the outer teeth very minute and sometimes rather widely separated from the inner. Body moderately large in size, depressed, shining or alutaceous, the sculpture very fine; head rather small, the elytra large; outer lobe of the paraglossae longer than the inner, both pointed; third maxillary palpal joint long, rather slender and compressed; eyes rather well developed; antennae moderately long and slender, scarcely visibly enlarged distally, the joints subcylindrical; neck a little less than half as wide as the head; prosternum strongly carinate posteriorly; hind tarsi very long and slender, filiform, four-fifths as long as the tibiae, the basal joint almost as long as the next two combined; anterior tarsi slightly dilated, more distinctly in the male. Nearctic regions. **Platymedon**
- Labrum with the usual small median notch and four very small teeth, the latter much less unequal among themselves and frequently very difficult to perceive. 15
- 15 — Elytra small, not longer than the prothorax; eyes small. 16
- Elytra well developed, always longer than the prothorax, the eyes large. 17
- 16 — Body minute in size, polished, sparsely punctured, the gular sutures wholly obsolete and traceable only by the absence of punctures on the intervening surface; antennae short, the basal joint stout, the remainder very slender but unusually clavate distally; neck rather less than half as wide as the head; palpi short; prosternum tumid but scarcely carinate posteriorly; hind tarsi short, moderately stout, the basal joint nearly as long as the next two combined, the anterior feebly dilated. Caribbean region. **Medonella**
- Body very small in size and of slender form, shining though rather coarsely and closely sculptured; gular sutures fine and sometimes subobsolete; antennae longer, normal, thicker, feebly enlarged distally; neck two-fifths as wide as the head; palpi longer and well developed; prosternum rather strongly carinate except anteriorly; hind tarsi longer, very slender and filiform, the basal joint distinctly shorter than the next two combined; anterior tarsi slightly thickened but not at all dilated. Pacific coast regions. **Oligopterus**
- 17 — Body moderate to very small in size, slender, more or less finely and closely sculptured, the gular sutures fine; head small as a rule; antennae rather short, moderately stout, filiform, scarcely thickened distally; neck two-fifths as wide as the head; prosternum strongly carinate posteriorly; hind tarsi long and very slender, filiform, the basal joint nearly as long as the next two combined, the anterior not at all dilated and but feebly thickened even in the male. Pacific coast regions. **Caloderma**
- 18 — Body moderate to small in size, rather slender, frequently dull in lustre and extremely finely, usually closely punctulate; head small, the elytra at least as long as the prothorax; palpi well developed, the lobes of the paraglossae small; mentum unusually elongate; gular sutures very fine and remotely separated, most approximate anteriorly and thence widely diverging to the base; antennae rather thick, filiform, not appreciably enlarged distally; eyes well developed; neck two-fifths as wide as the head; prosternum carinate posteriorly; hind tarsi rather short, somewhat stout, the basal joint longer than the second, the

anterior more or less strongly dilated in both sexes. Palaearctic and Nearctic regions. [= *Ramona* Csy.] **Pseudomedon**

Body minute in size, feebly, not very densely sculptured, the head and elytra larger than the prothorax; palpi well developed; gular sutures as in *Pseudomedon* but less widely separated; mentum shorter, strongly transverse; antennae short, unusually enlarged or claviform distally; eyes well developed; neck fully two-fifths as wide as the head; prosternum scarcely at all carinate; hind tarsi rather long, very slender and filiform, the basal joint distinctly shorter than the next two combined, the anterior merely thicker, not at all dilated. Regions bordering the Gulf of Mexico. **Lena**

The European *Hypomedon* Rey, is included for comparison and completeness; it is undoubtedly distinct from *Medon* and not a subgenus as stated by Heyden, Reitter and Weise in the catalogue of those authors. *Micromedon* (n. gen.) is founded upon the European *Medon seminigrum*, of Fairmaire. It is more closely related to *Hypomedon* than any other genus, but differs greatly in habitus and in labral structure, as well as in its non-spongiose anterior tarsi and minute eyes.

Neomedon Shp.

The genus *Neomedon*, as outlined by Dr. Sharp in the "Biologia," has the body subdepressed, the labrum short, broad, scarcely or not at all emarginate and minutely trituberculate at each side, the first joint of the posterior tarsi one-half longer than the second and the anterior slightly dilated. In view of these characters, in connection with the comparatively large size of the species, and the fact that the genus appears to extend to the northernmost limits of the regions covered by the "Biologia," leads me to believe that the following species, from which the generic diagnosis of the above table is taken, is truly a member of the genus under consideration:—

Body stout, subdepressed, parallel, black in color, the elytra, legs and antennae more or less bright rufous, the surface distinctly shining, with the punctures of the head coarse, rounded and distinctly separated, those of the pronotum finer but almost as close-set and about equal to those of the elytra, the abdomen very minutely and densely punctulate, head large, distinctly wider than long, parallel and straight at the sides; the basal angles rather broadly rounded, the base broadly sinuate;

prothorax small, strongly obtrapezoidal with the sides straight, much wider than long and distinctly narrower than the head, the angles distinct and only moderately rounded; elytra quadrate, subequal in width to the head, the sides parallel and feebly arcuate. Length 7.5 mm.; width 1.35 mm. Arizona (Williams), — Mr. Wickham. *arizonense* n. sp.

The secondary male sexual characters are very simple, consisting of a large and broadly rounded shallow sinus at the tip of the sixth ventral segment. The species seems to be rather rare and I have only seen two specimens thus far.

Polymedon n. gen.

This genus is also represented within our limits by a single species, which is very abundant, but, rather singularly, the only sex known to me is the female and I have searched in vain for the male through the numerous specimens in my cabinet. The male sexual characters are, however, probably simple. I have not been able to indentify *Polymedon* with any of the many Mexican genera made known by Dr. Sharp, and it is probably a local type, confined to the arid parts of the Sonoran regions. The type species may be described as follows:—

Body moderately stout and convex, parallel, dark red-brown throughout, the elytra rather more rufous; integuments densely dull because of the rather coarse and mutually subcontiguous punctures, the elytra feebly shining and less densely punctate, the abdomen very minutely punctulate and also slightly shining; head moderately large but not quite as wide as the elytra, parallel and feebly arcuate at the sides, the basal angles broadly rounded; prothorax much narrower than the head and almost as long as wide, feebly obtrapezoidal, the sides straight, the angles obtusely rounded; elytra subquadrate, scarcely as long as wide, about a fourth wider than the prothorax and almost two-fifths longer, the sides parallel, feebly arcuate posteriorly. Length 4.5 mm.; width 0.9 mm. Arizona.....*tabacinum* Csy.

The specimens at hand are from various parts of Arizona, and, in some, the head is relatively a little smaller, with the neck somewhat wider, but I can discover no other specific differences.

Sciocharis Arrib.

A part of the large collection of Staphylinidae brought back from Brazil by Mr. H. H. Smith, placed in my hands for examination some years ago, revealed a most astonishing variety in this genus and I remember mounting about twenty species; to state therefore that there are more than a hundred species within the limits of Brazil alone, ought to be a very conservative estimate. *Sciocharis* is probably equally well represented throughout Central America and Mexico, so that it may be said to be one of the largest — possibly the largest — genus of American Paederini. In the United States of America, it is represented, as far as known to me at present, by the three following species, the first of which belongs more properly to the fauna of Mexico: —

Second antennal joint much thicker but not longer than the third; punctures much finer, dense, the lustre dull; body rather stout; subdepressed, parallel, pale flavo-testaceous throughout, the head but little darker, the elytra with a large feeble piceous cloud, not extending to the sides, base or apex; head well developed, wider than long, parallel at the sides, the eyes at but little more than their own length from the base, the angles rather narrowly rounded; prothorax distinctly narrower than the head and wider than long, somewhat strongly obtrapezoidal with the sides straight, the angles very narrowly rounded and distinct, the basal broadly rounded; elytra quadrate, parallel, a fourth wider and nearly one-half longer than the prothorax and slightly wider than the head. Male not known. Length 3.0 mm.; width 0.75 mm. Texas (Brownsville), — Mr. Wickham..... *nubipennis* n. sp.

Second antennal joint much longer, as well as thicker, than the third; punctures of the head and pronotum stronger..... 2
2 — Color pale brown throughout, the head slightly darker, piceous; lustre dull; body parallel, moderately convex, the head well developed, as wide as the elytra, parallel and feebly arcuate at the sides, the eyes at nearly twice their own length from the base, the angles moderately rounded; prothorax distinctly obtrapezoidal, well developed, nearly as wide as the head, wider than long, the sides nearly straight, all the angles broadly rounded; elytra quadrate, parallel, about a sixth wider and a third longer than the prothorax. Length 3.0 mm.; width 0.65 mm. North Carolina (Asheville) and District of Columbia.

carolinensis n. sp.
Color blackish, the abdomen piceous, the legs dark brown and the antennae still paler; lustre alutaceous, the punctures dense; body subparallel,

moderately convex, the head moderately developed, wider than long but distinctly narrower than the elytra, parallel and straight at the sides, the angles right and only slightly rounded; eyes still rather smaller, somewhat convex, at twice their own length from the base; prothorax less developed, wider than long, a little narrower than the head, feebly obtrapezoidal, with all the angles broadly rounded; elytra quadrate, a fourth wider and two-fifths longer than the prothorax. Length 2.75 mm.; width 0.65 mm. Mississippi (Vicksburg).....*congruens* n. sp.

Both *carolinensis* and *congruens* are described from the male, in which sex the hind margin of the fifth ventral is transverse, becoming just visibly bisinuate at the middle, and the sixth has at the apex a broad notch, in the form of an incised cusp, with its sides rapidly flaring outward and arcuate, the point of the notch narrowly obtuse. In *congruens* the sides of the notch flare still more widely and the incisure is therefore relatively shallower than in *carolinensis*. The punctures of the head are rather irregular in form and deep, the narrow interspaces having some very minute scattered punctules which appear to bear the visible pubescence. The punctures of the pronotum, and, to some extent, of the elytra, are also peculiar, smaller than those of the head and equally close-set but circular, slightly elevated and bearing each a centrally placed hair. Although so generally distributed over the American continents, *Sciocharis* has not yet occurred in the regions bordering the Pacific Ocean.

Sciocharella n. gen.

The remarkable antennae characterizing this and the preceding genus are unlike anything else in the tribe and thoroughly isolate them. The present genus greatly resembles *Sciocharis*, though composed of much more minute species, but differs very radically in the form of the gular sutures and smaller eyes, as well as in its undilated anterior tarsi. The only species known to me at present is the following:—

Parallel, slender, moderately convex, alutaceous, pale flavo-testaceous throughout, except the head, which is piceous; punctures of the head and pronotum not distinct, very minute, of the elytra extremely minute, rather sparse; head nearly as long as wide, a little wider at base than across the slightly convex eyes, which are situated at rather more than

twice their own length from the base; sides almost perfectly straight, the angles somewhat obtuse but scarcely at all rounded; second antennal joint almost as long as the next two combined and much thicker, prothorax almost as long as wide, scarcely narrower than the head, but just visibly narrower at base than at apex, the sides nearly straight, the angles scarcely at all rounded; elytra quadrate, parallel, much wider than the head, a fifth wider and one-fourth longer than the prothorax. Length 1.75 mm.; width 0.33 mm. Alabama.

delicatula n. sp.

The male sexual modification of the sixth ventral is very nearly as in *Sciocharis*, being obtusely cuspidiform, with widely flaring arcuate sides of the emargination, but the apical margin of the fifth segment has a broadly rounded coplanar lobe, about a seventh as wide as the segment, projecting from the middle, which lobe is suggested by the very feeble bisinuation of the edge in some forms of *Sciocharis*. Other species of this interesting genus will doubtless be discovered in the course of careful collecting.

Trachysectus Csy.

This genus also has but a single known species, which is widely distributed throughout the colder parts of the North American continent, east of the Rocky Mountains. It may be readily known by its coarse and confluent sculpture and short tarsi, the first four joints of the posterior equal and the anterior slightly dilated:—

Rather stout, parallel, moderately convex, blackish-piceous, the elytra—rather broadly at tip,—antennae toward base and legs, rufous; prothorax also generally rufescent; surface feebly shining, densely sculptured, the head coarsely, with the punctures elongated by compression, the pronotum longitudinally rugose, the hairs borne from the minute granuliform punctules along the middle of the depressions or at the middle of the cephalic punctures, the punctures of the elytra sparser and smaller, asperate, of the abdomen extremely minute; head well developed, as wide as the elytra, a little wider than long, parallel and straight at the sides, the angles broadly rounded; eyes moderately developed, convex; prothorax much narrower than the head, obtrapezoidal, wider than long, the anterior angles obtuse but only slightly rounded; elytra quadrate, parallel, a fifth wider and two-fifths longer than the prothorax. Length 3.5 mm.; width 0.8 mm. Rhode Island and Virginia to Iowa and Minnesota.....*confluens* Say

The male has very simple sexual characters, the fifth segment being unmodified and the sixth having a small triangular median emargination. The under surface of the head is as coarsely and densely sculptured as the upper and the gular sutures are rendered conspicuous by reason of the fact that the narrow space between them is highly polished, sculptureless and concave, gradually broadening near the base. The name *confluens* is an Erichsonian emendation of the originally published "*confluenta*" of Say, (= *Lathrobium confluentum*).

Hemimедon n. gen.

In general appearance the species of *Hemimедon* strikingly resemble the Pacific coast *Oligopterus*, but the likeness is in great part superficial, as shown by the generic characters of the table, the labrum being quite different in structure. The genus appears to be very circumscribed in habitat, and, so far as known, limited in range to the more southern parts of the Appalachian mountain system. The two species before me are mutually as closely allied as those of *Oligopterus*, but may possibly be recognized by the following characters:—

Stouter in form and parallel, feebly shining, blackish-piceous, the abdomen black, the legs and antennae dark rufous; head well developed but distinctly narrower than the prothorax, slightly wider than long, the sides parallel and straight, the angles rather narrowly rounded; eyes at rather more than twice their own length from the base; punctures rather coarse and moderately dense; prothorax large and distinctly obtapezoidal, the sides broadly, feebly arcuate, the angles well rounded, the punctures finer than those of the head, well separated, the sculpture tending toward longitudinal rugulation; elytra small, slightly narrower than the head, much shorter than wide and much narrower and very much shorter than the prothorax, the sides rather strongly diverging from base to apex, the surface finely but strongly, rather closely and asperately punctate. Length 3.1 mm.; width 0.55 mm. North Carolina (Highlands) and Virginia (Pennington Gap).....*rufipes* n. sp.

Slender in form but similar in coloration and lustre to *rufipes*, the punctures of the head and pronotum less coarse and rather sparser, those of the latter notably feeble, of the elytra somewhat finer and denser but of the same character; head as long as wide, rather distinctly narrower than the prothorax, otherwise as in *rufipes*; prothorax much smaller, nearly as long as wide, only just visibly obtapezoidal, the sides feebly arcuate and the angles rounded; elytra similar to those of *rufipes*,

except that they are transverse, only very slightly narrower than the prothorax though much shorter. Length 3.2 mm.; width 0.45 mm. Virginia, — Mr. Ulke.....*angustum* n. sp.

The gular sutures are widely separated, most narrowly so well to the front, rapidly diverging toward base and are generally subobliterated. The male sexual characters are feeble, the fifth ventral segment unmodified, the sixth having a rounded apical sinuation occupying almost the entire tip, rather more than three times as wide as deep, with the edge of the sinus concavely beveled, gradually more broadly so around the bottom of the sinuation.

Medon Steph.

As far as known at present, the genus *Medon* is confined to the western part of the continent, with the exception of the very small *texanum*, which occurs in Texas and *americanum*, which appears to inhabit the Atlantic slope exclusively. The west coast species are much larger than the European *fuscum* and are generally very finely punctate, sometimes densely so and dull in lustre, while in the eastern *americanum*, the sculpture is comparatively coarse, much as in the palaearctic species mentioned.* The species are far less numerous than those of *Paramedon*, which largely replaces the European genus in America, and those before me may be recognized by the characters outlined in the following table:—

Elytra small, nearly as in <i>fuscum</i> , never materially larger than the prothorax; eyes very small; species confined to the Pacific coast regions..	2
Elytra large, notably larger than the prothorax; species distributed throughout the United States, frequently associated with ants.....	8
2—Body pale, castaneous or testaceous in color.....	3
Body black or blackish, the under surface of the head concolorous.....	6

* I have adopted the neuter ending for specific names in this and allied genera for the sake of constancy and uniform law in scientific nomenclature, holding that all generic names ending in *m* or *n* should require the neuter ending, in conformity with the general rule of the Latin language, and, in like manner, that all names ending in *is* or *a* should be feminine and all in *os* or *us* masculine, not even excepting such a name as *Venus*. In other words it is the form of the word which should be considered, when used as a generic symbol, and not its meaning in the original tongue.

- 3—Gular sutures gradually converging as usual, but remaining well separated toward the base of the head..... 4
 Gular sutures becoming so nearly fused as to be inseparable with certainty toward the base of the head..... 5
 4—Body very slender, pale testaceous, rather shining, the head very large as usual, nearly as long as wide, much wider than the prothorax, distinctly wider toward base than across the very small anterior eyes, the sides broadly arcuate and the basal angles widely rounded; punctures small but strong and close-set; prothorax distinctly obtrapezoidal, somewhat wider than long, the angles rounded and the sides very feebly sinuate toward the middle, more finely and sparsely punctate than the head; elytra small, quadrate, only very slightly wider and longer than the prothorax, rather closely and rugosely punctate; under surface of the head pale rufous, convex, shining, finely and sparsely punctate, the gular sutures strongly impressed and distinct. Male unknown. Length 4.5 mm.; width 0.75 mm. California (Hoopa Val., Humboldt Co.).

sinuatocolle Csy.

Body much less slender and more depressed, dark testaceous in color throughout and rather less shining, the head relatively not so large, wider than long, the eyes more prominent and the sides behind them more nearly parallel and feebly arcuate, the width subbasally scarcely perceptibly greater than across the eyes, the angles broadly rounded; punctures finer, rather close-set; prothorax nearly as in *sinuatocolle* but without visible sinuation at the sides and less markedly narrower than the head; elytra distinctly longer, quadrate, a fifth or sixth wider than the prothorax and nearly a third longer, similarly punctate; under surface of the head rather strongly and closely punctate, the gular sutures less impressed and with the intervening space longitudinally impressed toward base. Sinus at the middle of the sixth male ventral of the usual form, deep and broadly rounded at the bottom. Length 4.5 mm.; width 0.85 mm. Idaho (Coeur d'Alène),—Mr. Wickham.

helenae n. sp.

- 5—Body moderately slender, larger in size and less depressed, dark castaneous in color throughout, slightly dull in lustre, the punctures—particularly of the head—being close-set; head large, not swollen at base, the sides behind the small and anterior eyes being parallel and broadly, evenly arcuate; basal angles only moderately broadly rounded; prothorax much narrower than the head, wider than long, obtrapezoidal with the sides nearly straight, the angles rounded; elytra small, quadrate, only very slightly wider, though obviously longer, than the prothorax and distinctly narrower than the head; under surface of the head rather strongly, moderately closely punctate, pale in color, the double gular suture deeply impressed. Male sexual characters of the usual form, the semicircular notch of the sixth ventral moderately large. Length 4.7 mm.; width 0.8 mm. California (Sta. Clara Co.).....*lepidum* Csy.

Body rather stout, somewhat depressed, parallel, dark castaneo-testaceous in color throughout and moderately shining; head moderately large, wider than long, inflated toward base, where it becomes much wider than across the eyes, the basal angles broadly rounded; punctures fine

- but strong, close-set, the interspaces more polished and less dull or minutely reticulated than in *lepidum*; prothorax more finely and a little less closely punctured, obtrapezoidal with the sides straight, wider than long and distinctly narrower than the head, the angles rounded; elytra quadrate, somewhat wider and distinctly longer than the prothorax, subequal in width to the head; under surface of the latter convex, finely, rather sparsely punctate, the double gular suture toward base only feebly impressed. Sinus of the sixth ventral a little larger and relatively broader than in *lepidum*, broadly rounded. Length 4.4 mm.; width 0.8 mm. California (Lake Tahoe).....*lacustre* n. sp.
 6—Head very large, much wider than the elytra, fully as long as wide, finely, strongly and closely punctate, the sides behind the eyes feebly arcuate to the rounded basal angles, the width just before the latter a little greater than across the very small and anterior eyes; prothorax well developed, much narrower than the head, distinctly wider than long, obtrapezoidal with the sides nearly straight, the angles rounded, the punctures finer and much sparser than those of the head; elytra notably small, not as long as wide, scarcely visibly wider and only very little longer than the prothorax, about four-fifths as wide as the head, distinctly wider at apex than at base; under surface of the head shining, finely, more sparsely punctate; gular sutures very approximate, converging to the base and well impressed. Notch of the sixth ventral of the usual form in circular arc; fifth segment with some stiff black bristles arranged transversely on the disk near the apex, the single series rather widely interrupted at the middle, the apical margin truncate, just visibly sinuate at the middle. Length 3.9 mm.; width 0.68 mm. California (Sonoma and San Mateo Cos.).....*convergens* Csy.
 Head large but smaller than in *convergens* and only slightly wider than the elytra; body black or piceous-black throughout, the legs and antennae rufous..... 7
 7—Prothorax as in *convergens*, distinctly wider than long, obtrapezoidal in form with the sides straight and the angles only moderately rounded; head rather wider than long, moderately inflated and broadly arcuate at the sides behind the very small eyes, distinctly wider before the broadly rounded basal angles than across the eyes; elytra not quite as long as wide, a little wider at apex than at base, distinctly wider and longer than the prothorax but obviously narrower than the head; under surface of the latter finely, sparsely punctate, the gular sutures impressed, converging very gradually and very approximate. Sexual characters of the venter nearly as in *convergens*, the notch of the sixth segment circularly rounded, not quite half as wide as the segmental apex and about three times as wide as deep. Length 4.2 mm.; width 0.72 mm. Vancouver Island (Victoria),—Mr. Wickham.....*insulare* n. sp.
 Prothorax much narrower, only just visibly wider than long, with the angles broadly rounded and the sides but feebly converging from apex to base, both the head and prothorax minutely and unusually strongly reticulated and dull, the former finely and feebly but closely, the latter more finely and less closely, punctate; head narrower, as long as wide, not inflated basally, the long sides behind the eyes parallel and almost straight, the angles moderately broadly rounded; elytra about as long

as wide, nearly parallel, the sides straight, subequal in width to the head, a fifth wider and nearly a third longer than the prothorax; under surface of the head finely and rather closely punctate, the sutures as in the two preceding species. Sexual characters of the venter of the usual form, the inclined bristles of the fifth segment not arranged in a regular transverse series near the apical margin, the notch of the sixth circularly rounded, abruptly defined and rather more than three times as wide as deep. Length 4.7 mm.; width 0.72 mm. California (Lake Co.).....*puberulum* Csy.

8 — Eyes very small, always at much more than twice their own length from the base of the head..... 9
Eyes well developed, at scarcely more than twice their own length from the base; species very small.....13

9 — Sculpture coarse and close-set. Atlantic regions.....10
Sculpture very fine, the lustre alutaceous; species large. Rocky Mts.....11

10 — Body moderately slender, parallel, dull in lustre, pale red-brown throughout, the legs and antennae concolorous; head as long as wide, not inflated at base, the sides behind the eyes parallel and nearly straight, the angles well rounded, the punctures rather coarse and dense; prothorax distinctly obtrapezoidal with the sides nearly straight, obviously wider than long, slightly narrower than the head and with equally close-set but rather less coarse, rugulose punctuation, which partially obliterates the smooth median line, the angles rather narrowly rounded; elytra somewhat longer than wide, wider than the head, a fourth wider and three-fifths longer than the prothorax, the sides parallel and nearly straight; under surface of the head with the usual reniform punctures densely placed, the gular sutures very fine, not impressed, approximate and gradually converging to the base. Male not known. Length 4.2 mm.; width 0.72 mm. Pennsylvania.

americanum n. sp.

11 — Prosternum as usual, not carinate except posteriorly between the coxae; body rather stout, pale ochreo-testaceous throughout and dull in lustre, the punctures very minute and close-set throughout but rather more visible on the elytra and sparsest on the prothorax; head moderately large, as long as wide, the sides behind the eyes broadly arcuate and slightly convergent throughout to the basal angles, which are slightly more than right and scarcely at all rounded, the base truncate; antennae fully as long as the head and prothorax combined, rather stout; prothorax narrower than the head, somewhat wider than long, the sides subparallel and nearly straight, the angles very obtuse but only moderately rounded; elytra large, wider than the head, nearly a third wider than the prothorax and fully one-half longer, a little longer than wide, parallel; under surface of the head dull, densely, subrugosely punctured, the gular sutures fine, scarcely impressed, gradually converging to the base of the head, where they become narrowly separated. Length 4.5 mm.; width 0.8 mm. Colorado (Ouray), — Mr. Wickham.....*inquinum* n. sp.

Prosternum carinate throughout its length; basal angles of the head distinctly, though not very broadly, rounded; antennae somewhat long and thick as in *inquinum*.....12

12 — Body rather stout, parallel, dark rufo-ferruginous throughout, the head and pronotum shining, though finely, rather closely punctate, the latter less closely, the elytra finely, very closely and more distinctly, the abdomen extremely minutely and densely; head moderately large, almost as wide as long, the sides parallel and nearly straight from the eyes to the basal angles; neck half as wide as the head; prothorax large and well developed, subequal in width to the head, a little wider than long, the sides almost straight and parallel, the angles obtusely rounded; elytra large, much larger than the head, somewhat longer than wide, a fourth wider and one-half longer than the prothorax, the sides subparallel; under surface of the head more coarsely, closely and rugosely punctured, the sutures as in the preceding species, with the narrow intervening space becoming polished and impunctate toward base; prosternum convex longitudinally. Length 4.0 mm.; width 0.85 mm. New Mexico (Coolidge), — Mr. Wickham.

nitidulum n. sp.

Body somewhat stout and depressed, dullish in lustre, pale castaneous in color, the head above and the metasternum darker, piceous; punctures fine, feeble and very close-set on the head, sparse on the prothorax, minute and very dense on the elytra and abdomen; pubescence rather conspicuous; head moderate, as long as wide, parallel and nearly straight at the sides; prothorax a trifle narrower than the head, slightly obtrapezoidal, somewhat wider than long; elytra much wider than the head, quadrate, not longer than wide, notably wider and longer than the prothorax, parallel, the sides very feebly arcuate; under surface of the head rugosely and closely punctured but rather less coarsely than in *nitidulum*, the gular sutures similar but more impressed; prosternum flattened longitudinally, the carina more conspicuous than in *nitidulum*. Length 4.6 mm.; width 0.95 mm. California (Lake Tahoe).

opaculum n. sp.

13 — Body small, slender, parallel, polished, the elytra and abdomen duller, rufo-piceous in color throughout, the head usually darker; head and pronotum minutely but deeply and rather closely punctate, the latter but slightly less closely and equally strongly, with a broad smooth median line; head small, as long as wide, parallel and nearly straight at the sides, with slightly obtuse and distinctly, though not broadly, rounded basal angles; antennae slender, not as long as the head and prothorax combined; prothorax wider than the head, as long as wide, quadrate, the sides parallel and very feebly arcuate, the angles rounded; elytra quadrate, not longer than wide, but little wider though notably longer than the prothorax, parallel, sometimes broadly and nubilously paler toward the sides and narrowly at tip; under surface of the head shining, finely, sparsely punctate, the gular sutures very fine, almost obliterated, converging, becoming moderately narrowly separated posteriorly; prosternum convex, not at all carinate except posteriorly. Male with the fifth ventral unmodified, the sixth broadly sinuato-truncate throughout its width at apex, the sinuation very feeble; male rare, the female abundant. Length 2.9 mm.; width 0.5 mm. Texas (Austin and Columbus).....*texanum* n. sp.

The described species noted in the above table were previously regarded by the writer as forming "Group A" of *Lithocharis* (Bull. Cal. Acad. Sci., II, 1886), but are evidently congeneric with the European *Medon*. The species described under the names *inquilinum*, *nitidulum* and *opaculum* are apparently associated with ants, or, at least, the first is pinned with some specimens of a small piceous-black ant, having dark brown legs and antennae and 2.2 mm. in length; all three of them are probably rare and are represented at present by unique females. *Americanum* is also represented by a single female, the male being apparently much rarer than the female throughout the genus.

Paramedon n. gen.

This genus is composed of a large number of species confined principally to the true Pacific coast fauna but extending also into the adjacent elevated regions of the continent, having, in fact, a distribution almost precisely similar to that of *Orus*, of the Scopaei. It is closely allied to *Medon*, but has the anterior tarsi much more strongly dilated, especially in the male, and the male sexual characters are of a different character; in external appearance it differs in its rather stouter form with relatively larger elytra. In a previous paper by the author describing a few of the species (Bull. Cal. Acad. Sci., II, 1886), it was erroneously regarded as a section of *Lithocharis*. The species resemble each other to such a degree that it seems to be impossible to separate them in a recognizable manner by descriptions, without making extensive use of the secondary male sexual characters, which conspicuously modify the apex of the fifth ventral segment; these are fortunately sufficiently varied to enable us to do this with greater or less success. The large rounded emargination of the sixth ventral is, however, so constant in form as to be of very little use in classification. The gular sutures vary greatly in extent of separation, from almost complete contiguity, as in *kernianum*, to a very wide degree of separation, as in *gulare*. This enables us to divide the species into

two rather arbitrary sections. The sutures in the second section of the table are sufficiently separated to be readily observed with an ordinary hand lens. In the following table I have recognized twenty-seven species as valid: —

Gular sutures very approximate.....	2
Gular sutures more or less widely separated.....	15
2 — Species of the Pacific coast regions.....	3
Species peculiar to Arizona.....	14
3 — Median process projecting from the bottom of the broad sinus of the fifth ventral of the male abruptly limited at its sides.....	4
Median process not abruptly limited laterally, broadly arcuate or becoming gradually feebly sinuate medially.....	12
4 — Median process about one-third as wide as the sinus or but slightly wider.....	5
Median process much wider, always very much more than one-third as wide as the sinus and always broadly and distinctly sinuate.....	9
5 — The median process short, truncate, parallel-sided, scarcely more than a third as wide as the sinus, which is about three-fifths as wide as the segmental apex, the sides of the sinus between the process and the rectangular apices distinctly and evenly curved, and with the usual fringe of black spinules well developed; gular sutures fine, feeble, scarcely impressed, narrowly but perceptibly separated. Body moderately stout, pale rufo-testaceous throughout, the head above and beneath, prothorax, abdomen above and metasternum piceous-black; head not wider than the prothorax, parallel and nearly straight at the sides; prothorax a little wider than long, feebly obtrapezoidal and but little narrower than the elytra, the latter scarcely longer than wide, paler, rufous, the punctures sparse, the surface shining; abdomen more densely and finely punctured. Length 3.9 mm.; width 0.8 mm. Vancouver Island.....	<i>vancouveri</i> n. sp.
The median process wider and distinctly sinuate	6
6 — Head parallel and straight at the sides behind the eyes, which are unusually small, the basal angles rather narrowly rounded. Body dark testaceous in color, the abdomen blackish; surface shining, rather sparsely punctate, the elytra more finely and closely and the abdomen densely; gular sutures fine, approximate though sensibly separated, scarcely impressed; head distinctly wider than the prothorax, the latter sensibly wider than long, very feebly obtrapezoidal; elytra rather longer than wide, a fifth wider and nearly one-half longer than the prothorax. Sinus of the fifth segment well developed, about three-fourths as wide as the segmental apex, the process two-fifths as wide as the sinus, broadly sinuate at tip, with its lateral angles rounded, the sides diverging to the base; sides of the sinus between the process and rectangular apices feebly curved and with about eight black spinules. Length 3.7 mm.; width 0.85 mm. California (Siskiyou Co.).....	<i>shastanicum</i> n. sp.
Head parallel but more or less feebly arcuate at the sides behind the eyes, which are rather larger, the basal angles much more broadly rounded,	

- distinctly wider than the prothorax though less obviously so in *humboldtii*, the prothorax very faintly obtrapezoidal and distinctly wider than long, with the sides nearly straight..... 7
- 7—Punctures sparse, the surface more shining; body notably stout, blackish-piceous in color, the elytra paler and generally bright rufous, the legs testaceous; head large, the antennae as long as the head and prothorax, the elytra distinctly wider than the prothorax and as wide as the head, rather longer than wide; gular sutures fine, straight and parallel, approximate though sensibly separated and not impressed. Sexual characters of the male identical with those of *shastanicum*, the sinus of the fifth segment about two-thirds as wide as the segmental apex but with the process virtually similar. Length 4.0 mm.; width 0.95 mm. California (Sta. Cruz to Lake Co.).....*latiusculum* Csy.
- Punctures close-set, the surface more alutaceous; body less stout..... 8
- 8—Body more evenly parallel, the prothorax notably larger and only slightly narrower than the head or elytra, blackish-piceous, the prothorax, elytra, legs and antennae paler and piceo-testaceous; elytra obviously longer than wide, a fourth wider and rather more than one-half longer than the prothorax; gular sutures very approximate and distinctly impressed. Sinus of the fifth ventral broad and well developed but not very deep, the process scarcely at all more than one-third of its total width, broadly sinuate with rounded angles, its sides but feebly divergent to the base; fimbriate sides only very feebly, evenly curved and but slightly narrower than the process; surface of the segment feebly flattened toward the middle throughout, the flattened area more finely and sparsely pubescent. Length 4.2 mm.; width 0.8 mm. California (Sta. Clara Co.).....*malacum* Csy.
- Body less evenly parallel, the elytra being notably wider than the head and a fourth wider and one-half longer than the prothorax, not longer than wide, still more finely and closely punctured, dark rufo-testaceous, the head and abdomen blackish, the legs pale; abdomen notably narrower than the elytra; gular sutures fine but distinct, not distinctly impressed, very narrowly separated. Sinus of the fifth segment nearly as in *malacum*, but with the fimbriate sides evenly though more strongly curved, only slightly narrower than the median process, which is more broadly sinuate and nearly parallel-sided; surface of the segment not modified. Length 3.8 mm.; width 0.75 mm. California (Humboldt Co.).....*humboldtii* n. sp.
- 9—Gular sutures almost completely contiguous and distinctly impressed; head large, with the basal angles broadly rounded, notably wider than the prothorax.....10
- Gular sutures very narrowly but perceptibly separated and not or very feebly impressed; head only very slightly wider than the prothorax; species smaller in size.....11
- 10—Sinus of the fifth segment about three-fifths as wide as the apex, only moderately deep, the median process somewhat less than half as wide as the sinus, with rounded lateral angles, sinuate throughout almost in circular arc, the sinus five or six times as wide as deep; sides of the process slightly diverging to the base, the fimbriate sides of the sinus rather strongly curved. Body finely, not very densely punctate,

- except the abdomen which, as usual, is densely and more finely punctate, piceous, the elytra rather bright rufous, the legs pale; head behind the clypeal margin fully as wide as long, parallel and straight at the sides behind the rather well developed eyes; prothorax slightly wider than long, very feebly obtrapezoidal; elytra large, rather longer than wide, wider and longer than the head, a third wider and three-fifths longer than the prothorax. Length 4.5 mm.; width 0.9 mm. California (Kern Co.).....*kernianum* n. sp.
- Sinus similar in extent and depth, the median process a little larger, about half as wide as the sinus, more deeply but less broadly sinuate in sub-parabolic arc, but little more than four times as wide as deep, the sides feebly diverging from the rather narrowly rounded and subrectangular angles to the base, the fimbriate sides of the sinus feebly curved. Body finely, not very closely punctate anteriorly, blackish-piceous, the elytra but slightly paler, the legs brownish-testaceous; head not quite as long as wide, parallel and straight at the sides behind the eyes, which are rather well developed; prothorax slightly wider than long, nearly straight and parallel at the sides, the angles all rounded as usual; elytra but slightly wider than the head, rather longer than wide, a fourth wider and half longer than the prothorax. Length 4.6 mm.; width 0.8 mm. California (near San Francisco)....*consanguineum* Csy.
- 11—Head unusually narrow, rather longer than wide and only just visibly wider than the prothorax, parallel and straight at the sides behind the rather well developed eyes, the basal angles moderately broadly rounded; prothorax but little wider than long, the sides straight and almost parallel, the angles all rather less rounded than usual; elytra about a fourth wider and half longer than the prothorax, fully as long as wide; body unusually slender, piceous, polished and sparsely punctulate anteriorly; elytra and legs but little paler. Secondary sexual characters of the fifth ventral almost as in *consanguineum* throughout. Length 4.0 mm.; width 0.7 mm. California (San Mateo Co.).....*contignum* Csy.
- Head broader behind the clypeal margin, fully as wide as long, the sides behind the rather well developed eyes parallel and straight, with the basal angles rather broadly rounded; prothorax well developed; feebly obtrapezoidal, slightly wider than long, with almost straight sides and rather narrowly rounded angles, just visibly narrower than the head; elytra quadrate, scarcely a fourth wider and less than one-half longer than the prothorax; body moderately slender, blackish-piceous, the elytra and legs slightly paler, rufescent; integuments shining, very finely and not closely punctate anteriorly. Sinus of the fifth ventral three-fifths as wide as the apex, the median process very wide, nearly three-fifths as wide as the sinus, its sinus very broad, deep and parabolic, occupying the entire apex and about five times as wide as deep, its angles rather narrowly rounded and the sides but feebly diverging to the base; fimbriate sides of the segmental sinus rather strongly curved, the spinules about six in number. Length 3.7 mm.; width 0.75 mm. California (southern—probably Los Angeles Co.).....*subsimile* n. sp.
- Head still broader behind the clypeal margin, a little wider than long, the sides behind the unusually small eyes subparallel and broadly arcuate, the width just before the broadly rounded basal angles rather greater

than at the eyes; prothorax obviously narrower than the head, distinctly and rather strongly obtrapezoidal, somewhat wider than long, the sides nearly straight and the angles moderately broadly rounded; elytra scarcely wider and but little longer than the head, not quite as long as wide, a fifth wider and one-third longer than the prothorax; body moderately stout, piceous-black, prothorax slightly paler, the elytra and legs rufous, the head rather densely punctate, the pronotum more sparsely and shining. Sinus of the fifth segment unusually narrow, but little more than half as wide as the apex and shallow, the process unusually wide and large, three-fourths as wide as the sinus, broadly sinuate in its median three-fourths in circular arc; fimbriate sides of the segmental sinus very short, strongly curved and with about five spinules. Length 3.8 mm.; width 0.8 mm. California (locality unrecorded)..... **difforme** n. sp.

- 12 — Process slightly more than one-third the total width of the sinus, its sides diverging at an angle of 45° to the base, its sides at apex broadly rounded, its median sinus feeble in circular arc, broadly toward the middle; fimbriate sides of the principal sinus broadly, evenly and feebly curved; surface of the fifth segment not flattened. Body moderately slender, piceous-black, rather shining, finely and not closely punctate anteriorly, the prothorax slightly, the elytra and legs distinctly, paler; head rather small and narrow, as long as wide, the basal angles very broadly rounded, the sides thence to the well developed eyes straight and parallel; prothorax well developed, fully as wide as the head, parallel and straight at the sides, a little wider than long; elytra scarcely as long as wide, rather more than a fourth wider and fully one-third longer than the prothorax; gular sutures gradually becoming very approximate posteriorly, slightly impressed. Length 4.0 mm.; width 0.8 mm. California (Mendocino and Sta. Cruz Cos.).

retrusum Csy.

Process much wider, broadly arcuate throughout or becoming slightly truncate toward the middle, never distinctly sinuate..... 13

- 13 — Body less slender, piceo-rufous, the head darker and the abdomen black; head as wide as long, parallel and straight at the sides behind the eyes with the basal angles rounded, not evidently wider than the prothorax, the latter distinctly wider than long, parallel at the sides with rounded angles; elytra quadrate, much wider and longer than the prothorax. Process in the sinus of the fifth segment broadly, evenly arcuate throughout its width and fully half as wide as the sinus. Length 4.0 mm.; width 0.85 mm. California (Napa Co.). **sublestum** Csy.

Body slender, piceous, the prothorax and flanks of the elytra nubilously pale, the legs very pale; surface shining anteriorly; head rather wider than long, parallel and straight at the sides, distinctly wider than the prothorax, the basal angles rounded; prothorax straight and parallel at the sides, fully as long as wide, with broadly rounded angles; elytra rather longer than wide, nearly one-half wider than the prothorax and three-fifths longer; gular sutures quite distinctly, though narrowly, separated; parallel, except anteriorly, where they become rather abruptly divergent. Process of the fifth ventral very large, three-fifths as wide as the sinus, broadly arcuate throughout its width and becom-

ing slightly truncate toward the middle; fimbriate sides — making an angle of 45° with a transverse line — feebly curved. Length 3.9 mm.; width 0.7 mm. California (Sonoma Co.)..... **languidum** Csy.

- 14 — Moderately slender, fusco-testaceous, the head and abdomen black, the flanks of the elytra nubilously paler, the legs pale; anterior parts rather shining, the punctures small and not dense, fine and dense on the elytra and abdomen; head rather small, distinctly wider than long, the basal angles only moderately broadly rounded, the base broadly truncate, the neck a little narrower than usual, the sides behind the eyes straight and parallel, the eyes larger than usual, more than half as long as the distance thence to the base of the head; prothorax well developed, fully as wide as the head or a little wider, almost as long as wide, broadly rounded at apex, the sides parallel; elytra quadrate, a fourth wider and nearly one-half longer than the prothorax; gular sutures widely separated anteriorly, straight and gradually convergent thence nearly to the base, becoming very approximate, the space between them anteriorly densely and roughly sculptured, the intersutural area very feebly impressed. Length 3.9 mm.; width 0.8 mm. Arizona.

apacheanum n. sp.

- 15 — Species inhabiting the regions immediately bordering the Pacific Ocean..... 16

Species inhabiting the high Sierras and eastward..... 22

- 16 — Prothorax more or less distinctly wider than long..... 17

Prothorax smaller, oblong, fully as long as wide and apparently longer, always narrower than the head; species frequently very small in size, the neck narrower than usual..... 21

- 17 — Gular sutures very widely separated, the intervening space at the narrowest point wider than the maximum width of the third palpal joint..... 18

Gular sutures less widely separated, the intervening space slightly narrower than the width of the third palpal joint..... 19

- 18 — Body rather small and slender, feebly shining anteriorly with the head more alutaceous, dark testaceous in color, the head somewhat and the abdomen notably, darker, piceous, the elytra clouded with piceous; legs pale; head finely, rather closely punctate, convex, rather wider than long, very slightly wider than the prothorax, straight and parallel at the sides behind the rather small eyes, the basal angles broadly rounded; prothorax only just visibly wider than long, nearly straight and subparallel at the sides, sparsely punctate; elytra rather longer than wide, fully two-fifths wider and one-half longer than the prothorax; gular sutures broadly arcuate, feebly impressed, least separated at, or a little behind, the middle of the post-oral surface, which is rather finely and sparsely punctate. Median process in the apical sinus of the fifth ventral rather narrow, scarcely more than a third as wide as the sinus, broadly sinuato-truncate throughout its width at apex, its lateral angles well marked and rectangular, its sides short, rectilinear and parallel; surface with an arcuate series of long and widely spaced bristles at some distance before the process but otherwise unmodified; fimbriate sides of the segmental sinus distinctly curved, each having

about eight black spinules. Length 3.5 mm.; width 0.65 mm. California (near San Francisco) **gulare** n. sp.

Body nearly similar in form and coloration to the preceding, the head and abdomen blackish, the elytra brighter rufous and less clouded; head finely, less closely punctate, similar in form but with the eyes evidently larger, more obviously wider than the prothorax, the latter very distinctly wider than long, nearly parallel at the sides, the angles moderately rounded; elytra about as long as wide, a third wider and three-fifths longer than the prothorax; gular sutures broadly arcuate and slightly impressed, nearly as in *gulare* in form, the under surface of the head more coarsely, closely and subscabrously punctate. Median process of the fifth segment broader, nearly half as wide as the sinus, its apex truncate, becoming only just visibly sinuate toward the middle, its lateral angles rather broadly rounded and with the sides becoming parallel only at the base; fimbriate sides rather strongly curved, each with about six or seven perfect black spinules, surface with a sparse arcuate series of bristles before the process. Length 3.4 mm.; width 0.65 mm. California (probably the middle coast region) .. **distans** n. sp.

19—Head narrow, somewhat longer than wide and not wider than the prothorax in the female, the sides long, straight and parallel behind the moderately developed eyes, the basal angles moderately rounded. Body slender, the anterior parts finely, sparsely punctured and polished, piceous-black, the abdomen blackish, the elytra paler and brownish-rufous; prothorax only just perceptibly wider than long, nearly parallel and straight at the sides, the angles rather broadly rounded; elytra relatively much smaller than usual, about a fourth wider and scarcely one-half longer than the prothorax, scarcely as long as wide; under surface of the head polished, finely, sparsely punctured and convex, the gular sutures parallel and straight through the greater part of their extent and distinctly impressed. Male unknown. Length 4.0 mm.; width 0.65 mm. California (San Francisco) **luctuosum** Csy.

Head perceptibly wider than the prothorax in both sexes, rather wider than long, the sides parallel and straight behind the eyes, the basal angles moderately broadly rounded. 20

20—Smaller species, pale flavo-testaceous in color, more or less feebly clouded with piceous—notably on the posterior parts of the abdomen. Head only very slightly wider than the prothorax, finely, not densely punctate; prothorax rather large and well developed, notably wider than long and unusually strongly obtrapezoidal in form, the angles narrowly rounded; elytra rather small, quadrate, a fifth wider and about one-half longer than the prothorax; gular sutures straight. Median process of the fifth ventral short, about two-fifths as wide as the sinus, the latter relatively somewhat smaller and deeper than usual, the process very feebly, almost evenly sinuate at apex, its lateral angles narrowly rounded and with its sides parallel at base; fimbriate sides strongly curved and having unusually coarse black spinules; surface without the arcuate series of bristles before the process but clothed with very coarse black hairs throughout. Length 3.4 mm.; width 0.6 mm. California (Siskiyou Co.) **pallesceus** n. sp.

Larger species, piceous-black, the prothorax and elytra rufo-piceous, the

legs and antennae pale. Head distinctly wider than the prothorax in the female, the eyes only moderately developed and rather smaller than in the female of *pallesceus*; prothorax relatively smaller, scarcely more than just visibly wider than long, subparallel and nearly straight at the sides, the angles rounded; elytra relatively larger, somewhat longer than wide, fully a third wider and three-fifths longer than the prothorax, not paler in color than the latter; under surface of the head rather flat and somewhat strongly and closely punctate, the gular sutures fine, scarcely at all impressed, nearly straight and just visibly converging to a short distance from the base, the intersutural region paler in color. Length 4.0 mm.; width 0.72 mm. California (Sta. Cruz Co.) **conforme** n. sp.

21—Body slender, black, the anterior parts with a slight piceous tinge, scarcely at all paler on the elytra; head and prothorax polished, finely, sparsely punctate, the former rather wider than long, only slightly wider than the prothorax, parallel and nearly straight at the sides behind the unusually small eyes, the basal angles moderately broadly rounded; prothorax as long as wide, the apex oblique at each side of the neck, the apical angles broadly obtuse; elytra quadrate, almost one-half wider and longer than the prothorax; under surface of the head broadly convex, rather strongly but sparsely punctate, the gular sutures very fine, almost obliterated, wholly unimpressed and sensibly converging nearly to the base, where they are more narrowly separated than in any of the preceding species of this section. Median process of the fifth ventral very narrow but rather long, about a fourth as wide as the sinus, deeply sinuate at apex with its sides straight and nearly parallel and the angles acute; fimbriate sides of the segmental sinus long, very feebly curved, each with about ten or eleven unusually long black spinules. Length 3.5 mm.; width 0.6 mm. California (Sta. Clara Co.).

gregale Csy.
Body shorter and relatively less slender, the elytra scarcely picescent, the legs brown; surface shining, the abdomen dull; head very finely, not very densely punctured, as long as wide, evidently wider than the prothorax, the sides behind the rather small eyes parallel and broadly, distinctly arcuate, the basal angles broadly rounded; prothorax nearly as in the preceding but with the sides of the apex less oblique and more rounded and the obtuse apical angles more broadly rounded; elytra two-fifths wider and one-half longer than the prothorax, scarcely longer than wide; under surface of the head convex, polished, rather finely, sparsely punctate, the gular sutures fine, but slightly impressed, gradually and feebly converging nearly to the base almost as in *gregale*. Median process of the fifth ventral distinctly more than a third as wide as the sinus, deeply and evenly sinuate at apex from side to side, its angles acutely rounded and less than right, its sides straight and diverging thence to the base; fimbriate sides very feebly curved; surface having some long bristles before the process at each side of the middle, nearly as in *gregale*. Length 3.2 mm.; width 0.6 mm. California (Sta. Cruz to San Francisco) **mimulum** Csy.
Body very slender, dark rufo-piceous in color, the elytra piceous, the legs paler; surface rather shining, finely, sparsely punctate, the elytra and

abdomen more densely and subasperately punctate and duller; head small, narrow, as long as wide, scarcely perceptibly wider than the prothorax, the sides parallel and straight behind the rather small eyes, the angles well rounded; prothorax nearly as in *gregale* but with the obtuse apical angles more rounded; elytra somewhat longer than wide, about one-half wider and longer than the prothorax; under surface of the head rather finely and sparsely punctate, moderately convex, the gular sutures almost straight and parallel throughout the greater part of their extent, noticeably more deeply impressed and more widely separated than in either of the preceding species. Median process of the fifth ventral very large, fully one-half as wide as the sinus, deeply sinuate throughout its width at apex, with the angles narrowly rounded and rather less than right, its sides parallel to the base; fimbriate sides rather short, very slightly curved, each with about eight spinules; surface of the segment just before the process with a large uniserial cluster of very long close-set inclined bristles at each side of the middle. Length 2.9 mm.; width 0.55 mm. California (Los Angeles Co.).

debile n. sp.

- 22 — Head about as wide as the prothorax or just visibly wider..... 23
 Head very small, narrower than the prothorax..... 27
 23 — Body in great part dark piceous or blackish in color; gular sutures moderately separated..... 24
 Body testaceous in color throughout..... 26

24 — Head closely punctured and rather dull in lustre. Body piceous in color, the elytra and prothorax paler, sometimes dark testaceous with the head blackish; legs pale; head just visibly wider than the prothorax, a trifle smaller in the female, minutely, closely punctate, parallel and virtually straight at the sides behind the rather small eyes, the basal angles only moderately rounded; prothorax well developed, much less punctate than the head and more shining, very slightly wider than long, slightly obtrapezoidal in form, the angles rounded; elytra quadrate, barely a third wider and one-half longer than the prothorax; under surface of the head rather closely punctate, rufous in color. Median process of the fifth ventral somewhat more than two-fifths as wide as the sinus, evenly and moderately sinuate in circular arc throughout its width, its angles right and but slightly blunt, its sides diverging thence to the base; fimbriate sides of the segmental sinus feebly curved, each with about eight black spinules; surface before the process with a transverse straight line of coarse and well spaced inclined black bristles at each side of the middle. Length 3.9 mm.; width 0.72 mm. California (Lake Tahoe).....

tahoense n. sp.
 Head sparsely punctured and polished..... 25

- 25 — Piceous in color, the head blackish, the elytra and legs paler and testaceous; head somewhat wider than long, parallel and nearly straight at the sides behind the rather well developed eyes, about equal in width to the prothorax, the basal angles well rounded; prothorax distinctly wider than long and evidently obtrapezoidal, with the sides nearly straight, the angles narrowly rounded; elytra nearly as in *tahoense*; under surface of the head rather flat, moderately closely punctured, the gular sutures fine, feebly converging to about the

middle of the post-oral surface, where they are separated — as in the preceding species — by distinctly less than the maximum width of the third palpal joint. Median process of the fifth ventral two-fifths as wide as the sinus, moderately sinuate at apex in somewhat parabolic form, the sinus not extending quite to the side angles, which are right and but little rounded, its sides feebly diverging and straight thence to the base; fimbriate sides of the segmental sinus as in *tahoense*, the transverse discal lines of inclined bristles less developed. Length 3.8 mm.; width 0.73 mm. California (Truckee and Lake Tahoe).....

montanum n. sp.
 Piceous, though paler in color than the preceding, the head blackish and the elytra paler, the legs pale flavo-testaceous; head equal in width to the prothorax — even a little narrower in the female, parallel and straight at the sides behind the rather well developed eyes, the basal angles rather broadly rounded; prothorax distinctly obtrapezoidal with the sides nearly straight, obviously wider than long; elytra quadrate, a fourth to fifth wider than the prothorax; under surface of the head sparsely punctate, the gular sutures even less widely separated than in the two preceding species, and not at all impressed. Median process of the fifth ventral nearly as in *montanum* but somewhat wider, the fimbriate sides rather shorter and more strongly curved, the discal rows of bristles nearly similar. Length 4.0 mm.; width 0.7 mm. Idaho (Coeur d'Alene).....

boreale n. sp.
 26 — Moderately slender, larger in size, somewhat shining throughout, the punctures only moderately close-set on the head which is generally a little darker in color, very slightly wider than the prothorax, parallel and straight at the sides behind the rather small eyes and with well rounded basal angles; prothorax well developed, evidently obtrapezoidal and wider than long; elytra relatively rather small in size, a fifth wider and two-fifths longer than the prothorax; under surface of the head strongly, moderately closely punctate, the gular sutures rather strongly convergent, becoming parallel at about the middle of the post-oral surface, where they are separated by but little more than half the width of the third palpal joint, strongly impressed. Median process of the fifth ventral but little less than one-half as wide as the sinus, which is rather deep, its apex feebly sinuate in circular arc throughout the width, its angles right but well rounded, its sides diverging thence to the base; fimbriate sides moderately curved but less widely diverging than usual, each with some eight or nine black spinules. Length 4.4 mm.; width 0.75 mm. Arizona (Williams), — Mr. Wickham.

arizonicum n. sp.
 27 — Body small and moderately slender, piceous, the head blackish, the flanks and apex of the elytra broadly and nubilously pale testaceous, the legs pale as usual; surface shining throughout but with the punctures, even of the head and pronotum, close-set and minute; head small, about as wide as long, parallel and straight at the sides for a short distance behind the unusually large eyes, the basal angles broadly rounded; prothorax large, but just visibly wider than long, the sides subparallel and nearly straight, the angles rounded; elytra well developed, quadrate, a third wider and not quite one-half longer than the

prothorax; under surface of the head convex, black, shining, though rather closely punctulate, the gular sutures well impressed, widely separated, gradually converging nearly to the base of the head where they are separated by three-fourths of the maximum width of the third palpal joint. Male unknown; sixth ventral segment of the female strongly angulate at apex. Length 3.0 mm.; width 0.62 mm. Arizona (Pinal Mts.), — Mr. Wickham..... **pinalicum** n. sp.

The species of *Paramedon* will prove to be very numerous, being also abundant in individuals as a rule, and, as the males seem to be as well represented as the females, it generally happens that male characters are at hand for use in identification. All of the species here described are represented by males except four, viz.: *apacheanum*, *luctuosum*, *conforme* and *pinalicum*, and these are sufficiently distinct in other ways by reason of well marked divergencies, either in structure or habitat, to render them easy of identification; *conforme* and *luctuosum* are, however, mutually rather closely related. In some parts of the series the species become closely allied and will require care and study in identification, as for example in the case of *boreale* and *montanum*, which may be distinguished from each other by some noticeable differences in the male sexual characters, as well as by the more sparsely punctate under surface of the head in the former. In general the species are smaller than those of *Medon* and are equally monotonous in general appearance.

Medonodonta n. gen.

This genus and the succeeding are distinguished from those which precede in the group having the labrum bidentate, by the size and prominence of the teeth, which are very acute and project so far as to be conspicuous with an ordinary hand lens; they also have the neck somewhat narrower than usual, notably so in the present genus, the single representative of which may be defined as follows:—

Slender, parallel and distinctly depressed, alutaceous in lustre and pale and uniform red-brown in color throughout; punctures obsolete except toward the side of the head and on the elytra, where they are very minute; head well developed, wider than long, the sides parallel and broadly, evenly arcuate, with the basal angles more than right but not

rounded, the base truncate, becoming feebly sinuate in median third, the eyes at between three and four times their length from the base; antennae rather slender, filiform, with the joints elongate, about three-fourths longer than the head; prothorax strongly obtrapezoidal, slightly wider than long, only just visibly narrower than the head, the sides broadly and evenly arcuate, the angles obtuse but not much rounded; elytra very slightly longer than wide, just visibly narrower than the prothorax but rather distinctly longer, the sides subparallel and broadly, feebly arcuate, broadly rounding into the base; abdomen widest at the middle where it is as wide as the head and slightly wider than the elytra, the sides broadly and evenly arcuate. Length 4.3 mm.; width 0.68 mm. New Mexico..... **alutacea** n. sp.

The gular sutures are moderately widely separated, gradually and arcuately converging posteriorly and most narrowly separated basally; they are notably and very broadly impressed. The single type is a female and has lost all its legs.

Oxymedon n. gen.

In general facies the single known representative of this genus departs widely from *Medonodonta*, differing in form, convexity and sculpture to a notable degree, as well as in the much more approximate and scarcely at all impressed gular sutures. It may be described as follows:—

Body rather stout, parallel and convex, strongly shining, the punctures of the head not very coarse but strong and well separated, those of the prothorax scarcely smaller but notably feebler and rather less close-set, those of the elytra somewhat coarse and very strong, nearly like those of the head but sparser; color bright and uniform pale testaceous throughout, the head sometimes feebly picescent; head almost as long as wide, parallel and nearly straight at the sides, the angles broadly rounded, the eyes at a little less than three times their own length from the base, the latter becoming gradually transversely truncate toward the middle; antennae moderately slender and notably elongate, as long as the head and prothorax together, scarcely perceptibly and very gradually enlarged distally; prothorax slightly narrower than the head, as long as wide, the sides subparallel or just visibly convergent from apex to base and broadly arcuate, the angles all broadly rounded; elytra quadrate, parallel, and feebly arcuate at the sides, a fifth wider and one-third longer than the prothorax, rather wider than the head; abdomen parallel with the sides straight, not quite as wide as the head. Length 4.8 mm.; width 0.85 mm. California (Sisson and Truckee), — Mr. Wickham..... **rubrum** n. sp.

The male sexual characters are nearly as in the California species of *Medon*, the fifth segment being unmodified and the

sixth having a large, evenly and almost semicircularly rounded sinus, occupying virtually the entire apex and between two and three times as wide as deep, with its contour unmodified.

Tetramedon n. gen.

The labrum in this genus is remarkably similar to that of *Polymedon*, but in every other respect the two genera are altogether unlike, besides inhabiting quite different faunal provinces. The gular sutures in *Tetramedon* are moderately separated anteriorly, converging gradually to the base of the head, where they are very narrowly separated and are well impressed throughout. The single species known thus far is the following:—

Rather stout, parallel, somewhat depressed, moderately shining, black or piceous-black, the elytra bright rufous, except a large basal cloud near the scutellum, which is piceous, the legs and antennae pale red-brown; head well developed, wider than long, the sides parallel and broadly arcuate, the angles broadly rounded, the punctures not very coarse but deep and very close-set, mingled with larger circular punctures bearing stiffer setae; eyes at somewhat more than twice their own length from the base; antennae rather long and thick, subequal in length to the head and prothorax together; prothorax oblong, as long as wide, less than four-fifths as wide as the head and punctured like the latter but more finely and feebly, the sides straight and subparallel or just visibly convergent from apex to base, the angles obtuse and distinctly, though not very broadly rounded; elytra large, parallel, with slightly arcuate sides and well marked basal angles, which are widely exposed at base, distinctly longer than wide, slightly wider than the head, two-fifths wider and about one-half longer than the prothorax, moderately strongly and closely punctured; abdomen about as wide as the head, parallel, the sides just visibly arcuate, densely punctulate. Length 4.0 mm.; width 0.8 mm. New York (Hudson Valley).....**rufipenne n. sp.**

The unique type of this interesting species is a female, but the male secondary characters are probably of the usual simple form.

Platymedon Csy.

This genus was proposed by the writer some years ago to include a peculiar myrmecophilous Paederid of moderate size, somewhat depressed and of broadly parallel form, with char-

acters as stated in the table. Since then another member of the genus has occurred, and a specimen was kindly sent to me by Mr. Wickham as having been collected in eastern Nevada. The two species may be identified as follows:—

Stout, depressed, the sides slightly arcuate in general form, pale brownish-testaceous throughout, the head and abdomen rather darker; head and prothorax smooth, shining and subimpunctate, becoming finely punctulate and subscabrous broadly toward the sides, the elytra evenly, closely, minutely and asperately punctate; head much wider than long, somewhat transversely oval in form, the sides being parallel and broadly arcuate, the angles broadly rounded and the base transversely arcuate, the eyes moderately well developed, the sides and frontal regions bristling with a few black setae; antennae slender, as long as the head and prothorax in the male, shorter in the female; prothorax three-fifths wider than long, the sides just visibly converging from the very broadly rounded apical angles to the more obtuse but less rounded basal angles and nearly straight, distinctly wider than the head, the rounded contour of the apical angles having three or four long black bristling setae and the basal angles marked by another similar bristle; elytra much wider than long, slightly wider than the prothorax and about one-half longer, the sides strongly diverging and broadly arcuate from the rounded and scarcely at all exposed basal angles; apical margin conjointly broadly and angularly sinuate, the side margins without trace of bristling setae; abdomen short and broad, as wide as the elytra, the segments short and broad with the side margins rather thick, having numerous long bristling setae toward tip. Length 4.0 mm.; width 1.0 mm. Northern Illinois, Iowa (Iowa City) and Nebraska (West Point).....**laticolle Csy.**

Stout but more parallel, moderately depressed, pale red-brown throughout, the head and abdomen somewhat more piceous; elytra and prothorax alutaceous, finely but strongly, extremely densely and evenly punctate throughout, the latter with only vestiges of a narrow smooth median line, the head more shining, more coarsely, deeply and less closely punctured but evenly so throughout, except a narrow smooth median line, the abdomen finely, densely punctulate as usual; head but little wider than long, the sides much longer than in *laticolle* and nearly straight, the angles less broadly rounded and the base moderately arcuate; antennae longer and relatively stouter, as long as the head and prothorax even in the female; prothorax only just visibly wider than the head, about a third wider than long, the sides subparallel and feebly arcuate, the apical angles right and scarcely or only very narrowly rounded, the basal more broadly so, the bristling setae subobsolete; elytra about as long as wide, slightly wider than the prothorax and three-fifths longer, the sides diverging from the base and nearly straight, the apex only feebly sinuate; abdominal setae toward tip short. Male unknown. Length 4.6 mm.; width 0.9 mm. Nevada (Elko).....**nevadicum n. sp.**

The male secondary characters in *laticolle* are of a simple nature, the fifth ventral being unmodified, or only just visibly and broadly sinuate, and the sixth having a simple rounded sinus of moderate depth and about a third as wide as the apex. In *nevadicum* the outer labral teeth are relatively smaller and at a greater distance from the inner than in *laticolle*.

Medonella n. gen.

The single minute species, for which this generic name is proposed, is remarkable in having a type of antenna somewhat recalling *Sciocharis*, those organs being short, with the basal joint rather stout and of the usual length, the second short and less stout and the third and following still smaller and more slender; but the outer joints increase rather rapidly in size, the eleventh being about as stout as the first and the setae, though bristling, are very much shorter. It is also peculiar in that the rather widely separated gular sutures are completely effaced. The type of *Medonella* may be described as follows:—

Parallel, moderately convex and slender, polished throughout and pale rufo-testaceous, the abdomen slightly darker or picescent; punctures of the head fine, simple and sparse, of the pronotum still finer and sparser, of the elytra rather coarse, asperate and not close-set and of the abdomen unusually coarsely and sparsely asperate; head well developed, wider than long, parallel and straight at the sides, the angles right and but narrowly rounded, the base transversely truncate, becoming sinuate in the middle; antennae scarcely a third longer than the head in the female; eyes rather small but unusually convex; prothorax feebly obtrapezoidal, slightly wider than long, just visibly narrower than the head, the sides nearly straight and the angles rather obtuse, the anterior scarcely at all rounded; elytra small, about equal to the prothorax in length and width, the sides obviously diverging from the scarcely rounded basal angles and almost straight; abdomen at the middle rather wider than the elytra and fully as wide as the head, of the usual length, the sides parallel and very feebly arcuate; legs rather short. Length 1.8 mm.; width 0.3 mm. Florida (Biscayne Bay).
minuta n. sp.

The two specimens before me are females, the male being unknown as yet. The labral teeth are very difficult to observe, but the outer seem to be not only smaller than the

inner but short and very broadly obtuse. It is probable that other species of this genus will occur in Cuba and elsewhere in the Caribbean region.

Oligopterus Csy.

Although possessing a distinct habitus, the very small and slender species of this genus are closely allied to *Caloderma*, having similarly four minute labral teeth, the two inner—at each side of the median sinus—less minute than the two outer, the widely separated and feebly defined arcuate gular sutures mutually most approximate well before the middle of the under surface of the head and the anterior tarsi slender, filiform and not at all dilated but only slightly thickened, even in the male. The genus differs, however, in the very small elytra, which never exceed the prothorax in length, in the minute eyes, shorter metasternum and coarser sculpture of the abdomen above and beneath. The species are few in number, widely distributed over nearly the same geographical regions as *Caloderma* and are even more closely allied among themselves than the members of that genus; the species in fact resemble each other so closely that, were it not for the much more widely separated gular sutures of *remotus*, I would be disposed to consider them all as subspecies of a single generic type. The four forms in my cabinet may be outlined as follows:—

- Gular sutures separated by a minimum distance equal to about a seventh of the total width of the head, the latter well developed, as wide as long, somewhat wider than the prothorax, the sides parallel and straight, the angles rectangular and but slightly rounded; punctures small but strong, moderately close-set; prothorax obtrapezoidal, slightly wider than long, the anterior angles distinct, the punctures strong and similar to those of the head; elytra distinctly shorter than wide, equal in width to the prothorax and not quite as long, the sides feebly diverging from the base, the punctures close, strong and asperate; abdomen as wide as the elytra, finely, densely and asperately punctate; color dark rufo-piceous, the elytra darker and the abdomen black, the legs and antennae dark red-brown. Length 2.6 mm; width 0.4 mm. California (San Francisco).....*remotus* n. sp.
- Gular sutures similarly fine, feeble, arcuate and unimpressed but more approximate, mutually distant at their point of minimum separation by about a twelfth of the width of the head.....2

2—Body as in *remotus* but somewhat more slender, similar in coloration and sculpture, the head not distinctly wider than the prothorax, with the parallel sides slightly arcuate and the basal angles more broadly rounded; prothorax fully as long as wide, strongly obtrapezoidal with the angles distinct; elytra and abdomen as in *remotus* but still narrower. Length 2.7 mm.; width 0.4 mm. California (San Francisco to Sta. Cruz.).

cuneicollis Csy.

Body as in *cuneicollis* in coloration and sculpture but still more slender, the head slightly wider than the prothorax with the sides parallel and broadly, feebly arcuate, the basal angles scarcely rounded; prothorax as long as wide, strongly obtrapezoidal, the sides broadly arcuate; elytra equal to the prothorax in width and length, fully as long as wide, the sides diverging as usual, the basal angles rounded; abdomen as wide as the elytra, and, as usual, half as long as the body. Length 2.5 mm.; width 0.38 mm. California (Mokelumne Hill, Calaveras Co.),—Dr. Blaisdell.....

filum n. sp.

Body as in the preceding species but a little stouter than *filum*, pale rufo-testaceous with the legs and antennae concolorous, the abdomen piceous; surface more polished, with the punctures a little sparser and more feeble; head slightly wider than the prothorax, parallel and feebly arcuate at the sides, the basal angles distinctly rounded; prothorax very nearly as long as wide, only moderately obtrapezoidal, the angles slightly rounded; elytra rather flattened, not quite as long as wide or as long as the prothorax but as wide as the latter, the sides almost parallel but broadly arcuate. Length 2.5 mm.; width 0.4 mm. Montana (western),—Mr. Wickham.....

flexilis n. sp.

The male sexual characters are constant throughout the genus, as in *Caloderma*, and consist solely of a triangular notch, with its angle somewhat blunt or narrowly rounded and situated at the apex of the sixth ventral segment. The notch is smaller than in *Caloderma*, relatively deeper and more triangular.

Caloderma Csy.

Although widely separated in some characters, such as the dilated anterior tarsi of the male and absence of labral dentition, there can be no question that *Pseudomedon* is the nearest relative of *Caloderma*. The general form of the body, and, more particularly, the small head, are the same in both genera, but the gular sutures are much more widely separated in the former. The species of *Caloderma* are numerous, confined entirely to the regions west of the crest of the Rocky Mountains and are difficult to separate in some cases, which is also the condition in *Pseudomedon*,—a smaller but very

widely distributed genus. The species may be assigned to two groups based upon the sculpture of the prothorax, but those of the first group are mutually so closely allied, or at least similar in general appearance, that I prefer for the present to regard them as varietal modifications of a single species. The following table contains all the species now known to me:—

Prothorax densely sculptured with fine anastomosing longitudinal rugae. 2
Prothorax with distinctly defined punctures, very rarely exhibiting traces of a longitudinally rugulose sculpture..... 3

2 — Body subparallel, rather slender, dull in lustre, black or piceous-black in color throughout, the legs and antennae also dark; head distinctly narrower than the prothorax, as wide as long, the sides parallel and nearly straight, the basal angles rounded; eyes at about twice their own length from the base, the punctures rounded and distinct, relatively rather coarse and very dense; prothorax fully as long as wide, the sides parallel and broadly, evenly arcuate, the angles all broadly rounded; elytra much longer than wide, parallel, a fourth wider and two-thirds longer than the prothorax, very minutely but strongly, asperately and densely punctate; abdomen parallel, slightly narrower than the elytra, more shining than the anterior parts and sculptured in wavy transverse lines of excessively minute and close-set asperulate punctules; under surface of the head moderately strongly but rather sparsely punctured, the gular sutures arcuate, feeble, widely separated and distant at their most approximate point — which is well before the middle — by the maximum thickness of the third palpal joint. Sixth ventral of the male with a small rounded sinus at tip, the fifth unmodified. Length 3.3–4.0 mm.; width 0.6–0.65 mm. California (Sonoma to Los Angeles Co.).....

rugosa Csy.

Var A — Similar to the above but a little stouter and more evenly parallel, black, the prothorax, elytra, legs and antennae paler, brown; prothorax distinctly wider than long, less obviously wider than the head, more transversely truncate at apex, with the anterior angles more narrowly rounded; elytra large, much longer than wide but only a fifth or sixth wider than the prothorax; eyes larger than in *rugosa* and situated at less than twice their length from the base; gular sutures strongly arcuate, very feeble, at their closest point separated by much less than the maximum thickness of the third palpal joint. Length 3.6 mm.; width 0.65 mm. California (Sonoma and Calaveras Cos.).....

semibrunnea n. var.

Var B — Similar to *rugosa* but smaller and rather more slender, the prothorax more truncate at apex and with narrowly rounded angles; gular sutures more approximate, nearly as in *semibrunnea*; color black throughout. Length 3.3 mm.; width 0.55 mm. California (San Mateo Co.).....

angulata Csy.

Var C — Smaller and rather more slender than *rugosa*, dark brown in color with the pronotum, elytra, legs and antennae still paler; elytra

- not quite so elongate; punctures of the head rather less dense; gular sutures as in *angulata*. Length 3.1 mm.; width 0.55 mm. California (San Diego).....**continens** Csy.
- 3 — Elytra always much longer than the prothorax..... 4
- Elytra only very slightly longer than the prothorax, not longer than wide. 13
- 4 — Species very large and stout, the gular sutures broadly, feebly arcuate, approximate and distinctly impressed, black throughout, the legs and antennae brown, the elytra pale at apex; head rather coarsely, closely and normally punctate, scarcely visibly narrower than the prothorax, parallel and straight at the sides, as wide as long, the basal angles unusually broadly rounded; eyes normal, at about twice their own length from the base; neck rather less than two-fifths as wide as the head; prothorax somewhat strongly convex, finely, feebly, rather sparsely punctured and shining, a little wider than long, very slightly obtrapezoidal with the angles very broadly rounded; elytra large, quadrate, a fourth to nearly a third wider than the prothorax and one-half longer, very minutely, closely punctate. Sixth ventral of the male with the usual broadly rounded apical sinus. Length 5.2 mm.; width 0.9 mm. California (Los Angeles Co.).....**pollens** n. sp.
- Species moderate or small in size and of slender form, the gular sutures more arcuate, more widely separated and not or scarcely at all impressed; elytra longer than wide, parallel..... 5
- 5 — Pronotum black; species generally somewhat larger in size..... 6
- Pronotum pale in color; species frequently very small..... 11
- 6 — Elytra black or blackish, paler only at tip..... 7
- Elytra pale throughout..... 10
- 7 — Head distinctly narrower than the prothorax..... 8
- Head subequal in width to the prothorax or never more than just perceptibly narrower..... 9
- 8 — Prothorax much wider than long, parallel and broadly, feebly arcuate at the sides, finely but deeply, very closely punctured and rather dull in lustre, the angles moderately rounded; body much larger and distinctly less slender in form; head as wide as long, parallel and straight at the sides, very closely, rather coarsely punctured; elytra large, longer than wide, nearly a fourth wider and three-fifths longer than the prothorax. Length 3.4–3.9 mm.; width 0.6–0.68 mm. California (middle coast regions).....**mobilis** Csy.
- Prothorax only very slightly wider than long, slightly obtrapezoidal in form with the anterior angles but little rounded, finely and strongly but less densely punctate; body small and very slender, more parallel than in *mobilis*, the elytra being narrower when compared with the head and prothorax; head rather strongly but much more sparsely punctate; elytra a fifth wider and one-half longer than the prothorax. Length 3.0 mm.; width 0.5 mm. California (middle coast regions).....**reducta** Csy.
- 9 — Body rather stouter, nearly as in *mobilis* but smaller in size and more shining, the punctures distinctly less dense; head as wide as long, parallel and straight at the sides, the basal angles only slightly rounded, right; prothorax slightly wider than long, the sides just visibly converging from apex to base, the apical angles well rounded; elytra a fourth wider and fully three-fifths longer than the prothorax. Length

- 3.4–3.6 mm.; width 0.52–0.62 mm. California (Lake and Humboldt Cos.).....**luculenta** Csy.
- Body narrower and more parallel, more slender and rather smaller in size; head nearly as in *luculenta*; prothorax but slightly wider than long, rather distinctly obtrapezoidal in form, the apical angles but little rounded; elytra relatively smaller and narrower than in *luculenta*, but very slightly wider and one-half longer than the prothorax. Length 3.2 mm.; width 0.5 mm. Nevada (Reno), California (Truckee), Washington State (Spokane) and Idaho (Coeur d'Alène)....**peregrina** n. sp.
- 10 — Body relatively rather stout, parallel, black and somewhat shining, the elytra, legs and antennae castaneous-brown; punctures minute and close-set, coarser and more widely separated on the head, the latter well developed, as long as wide, but slightly narrower than the prothorax, parallel and straight at the sides as usual, the basal angles narrowly rounded; prothorax much wider than long, slightly obtrapezoidal, the angles distinct; elytra well developed, nearly a fourth wider and three-fifths longer than the prothorax. Length 3.8 mm.; width 0.62 mm. Nevada (Carson City), — Mr. Wickham.....**conjux** n. sp.
- 11 — Sides of the prothorax parallel, broadly and feebly arcuate. Body rather slender, parallel, moderately shining, black, the prothorax piceo-castaneous, the elytra still paler, especially so broadly toward tip; head noticeably narrower than the prothorax, rather strongly and closely punctured as usual, fully as long as wide, parallel and straight at the sides; prothorax but very little wider than long, minutely punctate, the angles less rounded than in *mobilis*; elytra about a fifth wider and three-fourths longer than the prothorax, parallel. Length 3.5 mm.; width 0.68 mm. California (middle coast regions).....**contracta** Csy.
- Sides of the prothorax more or less feebly convergent from the apical angles to the base; head as wide as the prothorax or somewhat wider; species smallest of the genus, slender..... 12
- 12 — Body black, the pronotum and elytra uniform and pale castaneous-brown, the latter only slightly paler at the extreme tip, the legs and antennae still paler; integuments shining; head as wide as the prothorax or just visibly narrower, as long as wide, shining, the punctures distinctly separated; prothorax almost as long as wide, the angles all well rounded; elytra but little longer than wide, nearly a fourth wider and barely one-half longer than the prothorax; abdomen somewhat wider than the prothorax. Length 3.0 mm.; width 0.6 mm. California (Humboldt Co.) to Washington State (Spokane).....**discolor** n. sp.
- Body black, the pronotum piceous, the elytra blackish-piceous, paler at the apices especially toward the sides; surface feebly shining; head large for the present genus, somewhat wider than the prothorax, coarsely and not very densely punctate, fully as wide as long, parallel and straight at the sides; prothorax small, almost as long as wide, the angles rounded, the sides only just visibly convergent; elytra distinctly longer than wide, fully a fourth wider and three-fifths longer than the prothorax, finely but strongly, not very densely punctured. Length 2.75 mm.; width 0.55 mm. California (Sta. Clara Co.).....**tantilla** Csy.
- Body pale testaceous throughout, the elytra still paler and more flavate and the abdomen piceous; surface rather shining; head well developed,

equal in width to the prothorax, as wide as long, straight and parallel at the sides, the basal angles rather broadly rounded, the punctures fine and somewhat sparse; prothorax a little wider than long, feebly obtrapezoidal, the angles moderately rounded, the punctures not conspicuous; elytra but little longer than wide, a fourth wider and one-half longer than the prothorax, rather strongly punctured, shining, the sides feebly diverging from base to apex. Length 2.9 mm.; width 0.53 mm.

California (southern), — Mr. Fall.....*mollis* n. sp.

Body very slender, parallel, piceous-black, the prothorax, legs and antennae dark testaceous, the elytra piceous-black, pale and subflavate in apical third or fourth; head rather wider than the prothorax, not densely punctate, shining, of the usual outline; prothorax rather small, inconspicuously punctured, feebly obtrapezoidal, the angles rather well rounded, somewhat wider than long; elytra narrow and much elongated, a fifth wider and three-fourths longer than the prothorax, rather strongly and closely punctured but distinctly shining as in the preceding. Length 2.6 mm.; width 0.45 mm. California (southern), — Mr. Fall.....*exilis* n. sp.

13 — Parallel, moderately stout, black, the head piceous, the prothorax, elytra, legs and antennae pale brown, the elytra still paler and more flavate at the apical margin; surface somewhat dull in lustre; head well developed, rather wider than long, equal in width to the prothorax, parallel and very feebly arcuate at the sides, with the angles rather narrowly rounded, the punctures fine but strong and close-set; prothorax a little wider than long, feebly obtrapezoidal with the sides nearly straight and the angles moderately rounded, the surface punctured like the head but still more densely; elytra not distinctly wider than the prothorax and scarcely a third longer, the sides straight and feebly diverging from the base, densely and subrugosely punctured; abdomen but very slightly narrower than the elytra. Length 3.2 mm.; width 0.6 mm. California (Sisson), — Mr. Wickham.

brevipennis n. sp.

Parallel but somewhat less stout and less densely punctate, similar in coloration, except that the prothorax and elytra are darker and more piceous; lustre slightly shining; head narrower, rather longer than wide, slightly narrower than the prothorax, parallel and nearly straight at the sides, the basal angles rather more broadly rounded, the punctures coarse and well separated; prothorax as in *brevipennis* but with the angles more broadly rounded and the punctures smaller than those of the head and only moderately close-set; elytra equal in width to the prothorax and barely a fifth longer, quadrate, with the sides very feebly diverging from the base; abdomen equal in width to the elytra. Length 3.4 mm.; width 0.57 mm. British Columbia (Yale), — Mr. Wickham.

quadripennis n. sp.

The described species included in the table were originally made known by the writer (Bull. Cal. Acad. Sci., II, 1886) in an unsystematic manner and without adequate knowledge of their mutual affinities. The systematic arrangement of the

species is a difficult matter and is rendered still less satisfactory because of the complete lack of variety in the male sexual characters; to such an extent is this true that the statement of these characters under each species would be of little or no value, for even in the otherwise isolated *pollens*, the only abdominal modification is the usual moderately deep, broadly rounded sinus at the apex of the sixth segment, which characterizes the entire genus. In my original description of *tantilla*, the prothorax is said to be "scarcely perceptibly wider than the head," but this is evidently a mistake, as the head is obviously very slightly wider than the prothorax, — a very exceptional character in the genus, although more frequent among the minute slender forms. For the present I have placed with the type of *brevipennis*, a specimen taken by myself at Lake Tahoe, differing only in a few undecisive points, such as the rather less abbreviated elytra, and another specimen from Coeur d'Alène, Idaho, which is somewhat more slender in form, less densely punctate and also with less abbreviated elytra. It is more than possible that each of these represents a species distinct from *brevipennis*, but the material at hand is insufficient to warrant a description of them, especially as all my representatives of this peculiar group, comprising *brevipennis* and *quadripennis*, are females. There is, however, little or no observable difference between the male and female in external form in those species represented before me by both sexes.

Pseudomedon Rey.

In the European Catalogue of Heyden, Reitter and Weise, this genus is attached as a subgenus to *Medon*, with which it has no close affinity whatever. It is more evidently allied to *Caloderma* than to *Medon*, especially in the form and wide separation of the gular sutures, general facies of the body and small head, but differs from both in its edentate labrum, very minute and dense sculpture and strongly dilated anterior tarsi. The species are few in number but occur throughout the United States, as well as the palaearctic regions, the

American species before me being identifiable by the following characters: —

- Addomen uniform in coloration and concolorous..... 2
 Abdomen pale, with the tip black..... 6
 2 — Body dark in color, the prothorax more or less distinctly narrower than the elytra, the latter fully as long as wide or somewhat longer..... 3
 Body pale red-brown in color throughout, the head a little darker, the prothorax large, fully as wide as the elytra, the latter not as long as wide..... 5
 3 — Prothorax pale, dull rufous in color; body more slender, black, the legs and antennae pale; dull in lustre throughout from the extremely minute, close-set punctules; head as long as wide, about three-fourths as wide as the prothorax, the sides behind the well developed eyes parallel and feebly arcuate, the basal angles broadly rounded; prothorax fully as long as wide, parallel and feebly arcuate at the sides, the angles broadly rounded; elytra about as long as wide, distinctly wider and longer than the prothorax. Length 4.0 mm.; width 0.65 mm. North Carolina (Asheville), New Jersey, New York and Rhode Island.

ruficollis n. sp.

- Prothorax dark and concolorous; anterior tarsi of the male very strongly dilated..... 4
 4 — Body parallel, black, dull in lustre, the prothorax never more than faintly piceous, black in maturity; elytra moderate, quadrate, only very slightly wider and about a fourth longer than the prothorax; head fully four-fifths as wide as the prothorax, rather wider at base than at the moderately developed eyes; prothorax relatively larger, but little wider than long, parallel. Length 3.3 mm.; width 0.7 mm. Massachusetts.

thoracicum n. sp.

- Body less parallel, the elytra relatively larger; black and dull throughout, the legs dark piceous; head very small, three-fourths as wide as the prothorax, nearly as in *ruficollis*; prothorax slightly wider than long, parallel and feebly arcuate at the sides, the angles rounded; elytra quadrate, fully a fourth wider and two-fifths longer than the prothorax. Length 3.75 mm.; width 0.75 mm. Nevada (Reno), California (Lake Tahoe) and Oregon (Albany).....*capitulum* Csy.

- 5 — Body, legs and antennae pale testaceous, the head piceous; dull in lustre throughout, rather stout and parallel in form; head unusually large, as wide as long, of the usual form, about four-fifths as wide as the prothorax, the latter very large, just visibly wider than long, fully as wide as the elytra, parallel, the sides feebly arcuate, the angles broadly rounded; elytra depressed, a little shorter than wide, but very slightly longer than the prothorax. Male not known but probably still stouter. Length 3.2 mm.; width 0.65 mm. Rhode Island (Boston Neck).

clarescens n. sp.

- 6 — Moderately stout, parallel, alutaceous, the elytra dull; pale testaceous, the head, elytra and last two ventral segments black; legs and antennae pale, the latter unusually long, half as long as the body; head rather well developed, five-sixths as wide as the prothorax, otherwise as in

the preceding species; prothorax as long as wide, the sides feebly arcuate, just visibly convergent from apex to base, the angles moderately rounded; elytra relatively small, as long as wide, about equal in width and length to the prothorax, the sides very slightly diverging from the base. Length 2.8 mm.; width 0.6 mm. Alabama (Eufaula).
alabamiae n. sp.

The sexual characters are simple, the male, as in *Caloderma*, having a small rounded or more or less angulate sinus at the tip of the sixth segment, becoming decidedly larger and triangular in *alabamiae*, and the anterior tarsi are more strongly dilated in that sex. Some of the Massachusetts specimens, described as *thoracicum* in the table, were sent to me by M. Sallé, under the name *obsoletum* Nord., and I have also taken it myself at Taunton, Mass. It differs from the true *obsoletum*, as represented by some Dalmatian examples sent me by Mr. Reitter, in its smaller size, relatively much larger prothorax and smaller elytra and in the deeper sinus of the sixth ventral of the male. The western *capitulum* resembles *obsoletum* much more closely in size and form, but has a deeper male sinus and relatively larger prothorax. The true *obsoletum* does not therefore occur in America, and its insertion in our catalogue is a result of careless and superficial comparative study, as has been the case in many other instances. Most of our faunistic catalogues are diminished considerably in value from this cause.

Lena Csy.

Although evidently allied to *Pseudomedon* by the structure of the labrum, gular sutures and hind tarsi, this genus departs widely in general facies, sculpture, in antennal structure and in its undilated anterior tarsi. The labrum is completely devoid of any trace of teeth but has a well developed median notch; the gular sutures are moderately separated at the front of the under surface of the head but thence gradually diverge widely to the base. The antennae are somewhat as in *Medonella*, being very short, with the third joint shorter and narrower than the second, the shaft gradually becoming notably thicker or clavate toward tip. The posterior tarsi are

moderately long, very slender and filiform, with the first four joints decreasing rapidly in length, the first almost as long as the next two combined, the fourth short, very oblique, extending slightly under the base of the fifth which is barely as long as the first and much more slender. The single widely disseminated species is not rare under old leaves and rubbish and may be defined as follows:—

Moderately stout, somewhat convex, parallel, pale flavo-testaceous throughout, sometimes feebly picescent beneath and on the abdomen; surface feebly alutaceous from a very minute reticulation, the elytra and abdomen rather more shining and sparsely punctate, the former somewhat coarsely and subrugulose, the head and pronotum not finely but extremely feebly and subobsoletely punctate; head well developed, somewhat wider than long, the sides parallel and nearly straight, the angles right and rather narrowly rounded; eyes moderately large; antennae short, about a fourth longer than the head in the female; prothorax distinctly narrower than the head, slightly transverse, distinctly obtrapezoidal, the sides straight, the angles obtuse and moderately rounded; elytra large, quadrate, much larger than the head, a fourth wider and one-third longer than the prothorax, parallel, the sides nearly straight, the basal angles right, but slightly rounded and rather widely exposed at base; abdomen parallel with the sides feebly arcuate, fully as wide as the elytra, the segments short, the fifth longer as usual. Length 2.0 mm.; width 0.45 mm. Texas (Austin, Houston and Brownsville) and Florida (Enterprise).....testacea Csy.

The specimens in my cabinet are females and I am therefore unable to describe the male, the secondary sexual characters of which are presumably very simple.

SCOPAEI.

The moderately numerous genera of this subtribe are composed on the whole of the smallest and most delicate species of the Paederini. They are especially developed in the American continents and comparatively poorly represented in the palaearctic regions. Some of the American genera are notable because of the elaborate secondary sexual modifications of the male, which in several cases such as *Scopaeopsis*, affect every segment of the abdomen. In many instances these secondary sexual characters extend to the entire form or relative sizes of the head, prothorax and elytra, as in

Lathrobium. The genera known to me by actual examples may be defined as follows:—

Neck moderately narrow, varying from a fourth to nearly a third as wide as the head..... 2
Neck extremely slender..... 4
2—Gular sutures parallel, broadly, feebly arcuate, moderately separated throughout but most approximate at the middle; labrum broadly truncate with the usual rounded median notch, bidentate or edentate; body parallel, moderately convex, always pale in color, the anterior thoracic angles distinct and subapical; tarsi moderately short, the posterior slender with the two basal joints subequal. Rocky Mountain regions.

Leucorus
Gular sutures more or less widely separated, more arcuate and most approximate anteriorly, diverging thence gradually to the base; labrum distinctly quadridentate; hind tarsi short, moderately slender, with the basal joint but little longer than the second; body black or blackish, polished and more or less sparsely punctate..... 3
3—Body thick and more convex, the legs thicker, the anterior tarsi dilated; thoracic angles broadly rounded and almost obliterated, the prothorax oval; labrum truncate; gular sutures distinct. Entire United States except the true Pacific coast fauna..... **Pycnorus**
Body slender, moderately convex, the legs slender; anterior tarsi not dilated though broader and thickened; prothorax oblong, the anterior angles more or less distinct; labrum rounded; gular sutures very feeble, sometimes nearly obliterated. Entire Pacific coast region..... **Orus**
4—Posterior tarsi rather short, moderately thick, with the basal joint never more than slightly longer than the second, the anterior very feebly dilated; labrum rounded in outline, distinctly quadridentate, the teeth simple; body slender, parallel and moderately convex..... 5
Posterior tarsi long, very slender, with the basal joint always distinctly longer than the second, the anterior not or very feebly dilated; body subparallel, strongly convex, the prothorax oval with the anterior angles obtuse or subobliterated and far from the apex..... 6
5—Body minute in size, variable in color, more or less alutaceous because of minute dense punctuation; prothorax suboblong, with the anterior angles more or less distinct; gular sutures moderately widely separated, most approximate anteriorly, gradually diverging thence to the base. Europe and America. [= *Leptorus* Csy.]..... **Scopaeus**
Body larger, black, polished, the punctuation less fine and rather sparse; prothorax oval, the anterior angles obliterated; gular sutures parallel, nearly straight, rather approximate throughout the length of the head. Entire northern United States..... **Scopaeoma**
6—Body very minutely punctulate and pubescent; labrum broadly rounded, large, very coarsely quadridentate and deeply cleft at the middle, the inner teeth each with an internal denticle at base, or, unequally bifid; gular sutures virtually coalescent from a short distance behind the support of the mentum. Eastern United States..... **Scopaeopsis**
Body polished, subglabrous and subimpunctate, with sparse erect tactile setae; labrum broadly rounded, with the usual small median emargi-

nation, the inner teeth distinct, simple and aciculate, the outer very minute or subobsolete; gular sutures very fine, rather widely separated, feebly arcuate, most approximate slightly before the middle. Sonoran regions.....*Scopaeodera*

I have been unable to obtain specimens of the Mexican *Euscopaeus* Shp., or of the true *Polyodontus* Sol., for comparison. In the catalogue of Heyden, Reitter and Weise, the latter of these genera is made the receptacle for most of the European Scopaei, but I can find no structural difference between the species so listed and those which are held to represent the true *Scopaeus*. It is my recollection that *Polyodontus* Sol., is a genus differing distinctly from *Scopaeus* and inhabiting Chile, but I have no means of confirming this at present.

Leucorus n. gen.

The prothorax in this genus is more oblong and with more apical and strongly defined anterior angles than in any other type of American Scopaei, and, from all other genera except *Orus* and *Pycnorus*, it is distinguishable at once by the wider neck, which varies from nearly a fourth to almost a third as wide as the head. From *Pycnorus* it departs widely in habitus, owing to the distinct thoracic angles, and, from both *Orus* and *Pycnorus*, it differs radically in the form of the labrum and obsolete external labral teeth. The color of the body is always pale ferruginous, differing conspicuously from the uniform black or piceous of the genera mentioned, and the few known species are confined as far as known to the regions west of the Mississippi River, excepting probably the true Pacific coast fauna. The four species in my cabinet may be defined as follows:—

- Elytra much longer and wider than the prothorax..... 2
 Elytra subequal in length to the prothorax and but little wider..... 3
 2 — Form rather stout, moderately convex, parallel, pale rufo-testaceous in color throughout the body, legs and antennae; lustre rather shining; head well developed, minutely, not densely punctate, slightly elongate, the eyes rather large but only feebly convex and not prominent, the sides behind them very feebly converging and just visibly arcuate to the broadly rounded basal angles, the truncate base obviously narrower than the width across the eyes; antennae evidently shorter than the head and

prothorax, rather slender but distinctly incrassate distally, the basal joint unusually elongate, nearly as long as the next three which diminish gradually in length; prothorax four-fifths as wide as the head, slightly longer than wide, the sides feebly converging from the obtuse and slightly rounded angles at apical fifth to the less obtuse and slightly rounded basal angles and straight, the punctures sparse and rather feeble but much larger than those of the head; elytra slightly longer than wide, distinctly wider than the head, a third wider and one-fourth longer than the prothorax, the sides very feebly diverging from the base, the punctures very fine and not close-set; abdomen but slightly narrower than the elytra, but little wider posteriorly than at base; gular sutures well separated, the intervening space with a small feeble impressed fovea just behind the mental support. Male with a deep elongate-oval excavation occupying median fourth of the fifth ventral, and having sharply defined side margins, extending to basal third or fourth, the excavation gradually narrowing and becoming obsolete near the base; bottom of the excavation flat and polished; posterior margin with a deep subquadrate notch, the sides of which are formed by obtuse prolongations of the sides of the excavation; sixth segment having a very deep and extremely narrow apical notch, acute at the bottom and three or four times as deep as wide. Length 3.3 mm.; width 0.7 mm. Arizona.....*ferrugineus* n. sp.

Form and coloration nearly similar to the preceding, the body narrower and the head and prothorax relatively smaller; head notably longer than wide, the eyes smaller than in *ferrugineus* but otherwise similar, the antennae more strongly incrassate distally; prothorax distinctly elongate, with the sides parallel, the anterior angles behind apical fifth and rather broadly rounded; elytra a third wider and longer than the prothorax, longer than wide; gular sutures well separated, the intermediate surface simple but more strongly micro-reticulate. Length 3.0 mm.; width 0.62 mm. Southern California.....*luridus* n. sp.

Form and coloration similar in general to the two preceding but with the prothorax relatively more developed and but just visibly narrower than the head, parallel at the sides, with the anterior and basal angles well rounded, the former at about apical fifth; sides of the head behind the well developed eyes more rapidly converging and broadly arcuate, the truncate base much narrower than the width across the eyes; antennae only very feebly incrassate; elytra but little longer than wide, slightly wider than the head, a fourth wider and one-fifth longer than the prothorax. Length 3.4 mm.; width 0.65 mm. Colorado (Cañon City), — Mr. Wickham.....*ochrinus* n. sp.

3 — Body parallel, rather darker testaceous, the abdomen somewhat dusky; lustre rather shining; head well developed, scarcely at all longer than wide, fully as wide as the elytra, the sides behind the somewhat smaller eyes parallel for a short distance, then broadly rounding to the truncate base; prothorax small, much narrower than the head, slightly elongate, the sides rather strongly converging from the well rounded angles at apical fifth to the rounded basal angles and straight; elytra obviously wider than the prothorax but only just visibly longer; abdomen at base as wide as the elytra, becoming wider behind. Male having

the secondary sexual characters comparatively feeble but of the same type as those of *ferrugineus*, the fifth ventral having a feeble, very narrow longitudinal impression along the middle, gradually becoming extinct before the middle of the length and not more than a tenth or twelfth as wide as the segment, the posterior margin transversely truncate, with a very minute feeble sinus at the posterior end of the impression; sixth segment having a very narrow deep and angular notch, nearly three times as deep as wide. Length 2.9 mm.; width 0.68 mm. Iowa.....*rubens* n. sp.

A female from Iowa, apparently belongs to the male described as *rubens* above, but shows that the sexual differences in general form of the body are very marked, the head being much smaller in the female and only just visibly wider than the prothorax, and the abdomen is parallel or nearly so and distinctly more slender. *Luridus* and *ochrinus* are at present represented by the female alone, but the divergencies of these species from *ferrugineus*, which is represented only by the male, do not lie altogether in the direction of the sexual differences as observed in *rubens*, and there seems to be but little doubt of their validity.

Pycnorus n. gen.

The species of this genus are few in number, widely distributed over nearly the entire country, except perhaps the northern Pacific coast, and may be distinguished from *Orus* by their stouter form, shorter and stouter tarsi, the anterior more strongly dilated as a rule, more widely separated and stronger gular sutures, by the short and broadly truncate labrum, and, finally and more particularly, by the obliterated anterior thoracic angles. From *Leucorus* they are still more readily distinguished by this last character, as well as by the larger, truncate and bidentate to virtually edentate labrum of that genus. The male sexual characters are distinctive of the genus, as may be seen below under the description of the type species. The three forms known to me may be thus outlined:—

Form moderately stout, parallel, convex, shining, black throughout, the legs piceous with the tarsi somewhat paler; head minutely, not densely

punctate, the pronotum and elytra more coarsely but sparsely so, the abdomen very minutely, densely punctulate. Head moderate, rather longer than wide, the sides parallel for about a length of the eye behind the latter, then gradually rounded and converging to the sinuate-truncate base, which is only about three-fourths of the width at the somewhat well developed eyes; basal angles obtuse but only moderately rounded; antennae a little shorter than the head and prothorax, moderately thick, very feebly and gradually incrassate distally, the basal joint but little longer than the next two combined; prothorax large, oval, a third longer than wide, parallel and broadly arcuate at the sides, the latter arcuately converging anteriorly to the neck, relatively larger and almost as wide as the head in the male, distinctly narrower in the female; elytra slightly wider than the head and a fifth wider than the prothorax, slightly elongate, more obviously so in the female, equal in length to the prothorax in the latter and slightly shorter in the male; abdomen subequal in width to the elytra. Male having all the abdominal segments sparsely clothed with longer stiff bristles at each side of the broadly flattened median third, the bristles inclined inwardly, the second segment impressed in median third almost to the base, the impression smooth and polished posteriorly and more thickly bristling with stiff hairs elsewhere, its side margins rather tumid and prominent at and behind the middle and having a dense tuft of hairs at the middle anteriorly; third segment very feebly impressed basally; fifth with a narrow and very feeble median sinus; sixth having a large simple sinus at the middle of the apex, about three times as wide as deep, the surface in the middle feebly, longitudinally and narrowly impressed; femora all thick, the posterior broadly concave on the posterior face, the lower edge of the concavity feebly serrate — as is also the inner edge of the hind tibiae — and having a large tooth near the trochanter; anterior tarsi rather strongly dilated. Length 3.2 mm.; width 0.65 mm. Massachusetts.....*dentiger* Lec.

Form slightly more slender than in *dentiger* but nearly similar in size, form and sculpture; hind angles of the head less broadly rounded; prothorax distinctly narrower than the elytra, the latter comparatively more elongate than in *dentiger*; legs brown in color. Male characters substantially similar, excepting that the emargination of the sixth ventral is a little less broadly rounded, the inner sinuate margin of the hind femora slightly more serrate and the hind tibiae not serrate internally. California (Pomona).....*armiger* Fall

Form stouter and less convex than in *dentiger*, not parallel, shining, black, the legs and antennae piceous throughout; head dull in lustre, slightly elongate, the sides parallel for a short distance behind the eyes, then broadly rounded into the base, the angles being much more broadly rounded at base than in *dentiger*; antennae slender, feebly incrassate; prothorax slightly though distinctly narrower than the head, parallel and broadly arcuate laterally, elongate-oval, more coarsely punctured than the elytra, the punctures sparse; elytra large, but slightly longer than wide, fully a fourth wider than the head, two-fifths wider than the prothorax and distinctly longer than the latter, subparallel and feebly

arcuate at the sides; sutural region broadly impressed throughout; abdomen parallel, obviously narrower than the elytra. Length 3.25 mm.; width 0.73 mm. Male unknown. Iowa.....*iowanus* n. sp.

There is a small, rounded and acutely pointed tubercle at the middle of the gular intersutural surface, just behind the oral cavity, which seems to be obsolete in the female of *dentiger*, but it is present in the unique female type of *iowanus*. The latter species is very distinct from the others in its much larger elytra and more broadly and evenly rounded basal angles of the head. The characters of *armiger* are taken from the original description of Mr. Fall.

Orus Csy.

The numerous species of this genus are of slender form and more or less shining surface, due to the sparse and coarser punctuation, they being distinguished from *Scopaeus* by this character as well as the broader neck and other features mentioned in the table. *Cervicula* constitutes a remarkable exception in regard to one of the most important structural characters distinguishing the genus from *Scopaeus* and several other genera of the group, the neck being very slender and precisely similar to that characterizing the genus mentioned. In all its other characters, however, it is a typical *Orus* and *cervicula* cannot, therefore, be held to unite *Orus* with *Scopaeus*. In geographical range *Orus* is confined to the regions bordering the Pacific Ocean, not penetrating eastward, as far as known, further than the crest of the Rocky Mountain divide. The species are larger and stouter than those of *Scopaeus*, which—if we except a small aberrant form recently named *Leptorus longipennis*, by Mr. Fall,—does not form a part of the true Pacific coast fauna. The species known thus far may be defined as follows:—

- Neck of the usual width, nearly a third as wide as the head..... 2
 Neck very slender as in *Scopaeus*.....14
 2—Prothorax elongate, never more than slightly shorter than the elytra.. 3
 Prothorax invariably very much shorter than the elytra..... 5
 3—Sides of the prothorax, from the obtusely rounded apical angles to the base, distinctly converging and straight. Body very slender, black

- throughout, the legs and antennae brown, alutaceous because of very minute reticulation, the elytra shining; head well developed, scarcely longer than wide, parallel and broadly arcuate at the sides, the angles broadly rounded, the base truncate; surface very finely and closely punctate throughout; antennae not as long as the head and prothorax, with joints two to four decreasing slightly in length; prothorax much longer than wide, distinctly narrower than the head, the obtuse rounded anterior angles situated at apical fourth or fifth; surface more coarsely and unusually closely punctured throughout, the median line feebly elevated toward base; elytra but little longer than wide and only about a fifth longer than the prothorax, though fully two-fifths wider, parallel, finely but strongly, asperately punctate; abdomen parallel and elongate, wider than the head; gular sutures fine but evident, somewhat widely separated, the intervening space more strongly and coarsely micro-reticulate than the remainder of the surface. Male unknown. Length 3.5 mm.; width 0.5 mm. California (Lake Tahoe).....*longicollis* n. sp.
 Sides of the prothorax parallel or not distinctly converging, nearly straight, the obtusely rounded apical angles more anterior, at about apical fifth or sixth..... 4
 4—Larger species, parallel in form, dark rufo-piceous in color, except the head and abdomen which are blackish; surface moderately shining, the micro-reticulation of the anterior parts evident but feeble; head well developed, slightly longer than wide, throughout nearly as in *longicollis*, the antennae nearly as long as the head and prothorax, with joints two and three equal in length, the fourth shorter; prothorax unusually large, but little, though evidently, narrower than the head, a third longer than wide, the punctures rather coarse and unusually close-set throughout but not very deep; elytra but little longer than wide, parallel, very finely and rather closely punctate, barely a fifth longer than the prothorax and nearly one-half wider; abdomen much narrower than the elytra though obviously wider than the head; gular sutures nearly as in *longicollis*. Male unknown. Length 3.3 mm.; width 0.68 mm. California (Napa and Sonoma Cos.).....*parallelus* Csy.
 Smaller in size, shining, the micro-reticulation scarcely traceable, black in color throughout, the legs and antennae piceous; head well developed, scarcely visibly longer than wide, nearly as in the preceding species in form, the minute but deep punctures rather less close-set; antennae shorter than in *parallelus*, distinctly shorter than the head and prothorax, with joints two to four gradually decreasing in length as usual; prothorax relatively smaller, much narrower than the head, the punctures larger than those of the head as usual but fine, sparse and notably feeble; elytra only just visibly longer than wide, with the sides very feebly diverging from base to apex, about a fifth longer and two-fifths wider than the prothorax, finely, not very densely punctate; abdomen but little narrower than the elytra and much wider than the head; gular sutures nearly as in the preceding. Male unknown. Length 3.0 mm.; width 0.6 mm. Idaho (Coeur d'Alène), — Mr. Wickham.
 5—Prothorax subequal in width to the head, rather larger in size than in *punctatus*, nearly black in color and of rather robust form. Fifth ven-

boreellus n. sp.

tral of the male feebly sinuato-truncate and very slightly impressed, the sixth triangularly emarginate, the notch much less deep than in *punctatus* and with its diverging sides not at all sinuate posteriorly, its apical angle somewhat less than right and but slightly rounded. California (San Bernardino Mts.). *montanus* Fall

Prothorax always distinctly narrower than the head. 6

6 — Head unusually developed, as wide as long or very nearly so — estimating from the line of supra-antennal tubercles. 7

Head narrower, more or less distinctly longer than wide. 8

7 — Color pale piceous-brown, the head and abdomen blackish; form rather stout, the surface shining, the micro-reticulation subobsolete; head large, fully as wide as long, the eyes well developed, the sides behind them parallel and straight, the basal angles broadly rounded, the punctures minute but deep, moderately close-set; antennae moderate; prothorax small, much narrower than the head and about equally long, only a little longer than wide, the sides very feebly converging from the obtuse but distinct apical angles to the base and broadly feebly arcuate, the punctures coarse, sparse and rather strong; elytra parallel, about a fifth longer than wide, two-fifths wider and nearly one-half longer than the prothorax, wider than the head, finely and not densely punctured; abdomen much narrower than the elytra and scarcely wider than the head. Male sexual characters of the *punctatus* type, the notch of the sixth ventral being similar, the fifth segment having a broad median lobe which is evenly rounded throughout its contour and shorter than in *punctatus*, the surface strongly, longitudinally impressed in about apical half. Length 3.2 mm.; width 0.6 mm. California (Sonoma Co.).

sonomae n. sp.

Color uniform pale piceous-brown throughout, except the head and abdomen which are black; surface of the head and pronotum alutaceous, the fine reticulation strong; head well developed, scarcely visibly elongate, the eyes rather large, the sides behind them parallel and straight only for a very short distance, then rounding into the very broadly rounded basal angles, the punctures very minute and sparse; prothorax relatively larger and more elongate than in *sonomae*, though distinctly narrower than the head, about a fourth longer than wide, subparallel and nearly straight at the sides, the obtuse though scarcely rounded apical angles at about a fifth of the length from the apex, the punctures moderately large but sparse and extremely feeble, almost completely obliterated; elytra distinctly elongate, parallel, two-fifths wider and a little less than one-half longer than the prothorax, moderately strongly, subasperately and not very densely punctate. Male unknown. Length 2.9 mm.; width 0.55 mm. Washington State (Spokane).

pugetanus n. sp.

Color deep black throughout, the legs piceous-black, the tarsi and antennae paler, rufous; surface strongly shining, the reticulation obsolete; head large, very nearly as wide as long, the eyes only moderately large, the sides behind them parallel for a rather long distance, the angles somewhat broadly rounded; antennae rather short, gradually thicker toward tip; punctures fine, very deep and close-set throughout; prothorax somewhat distinctly narrower than the head, slightly longer

than wide, parallel and just visibly arcuate at the sides, the apical angles obtuse and one-fifth from the apex, the punctures rather coarse but very sparse, distinct though not deep; elytra large, parallel, only a fifth or sixth longer than wide, fully one-half wider and longer than the prothorax, finely, sparsely and not asperately punctate and strongly shining; abdomen much narrower than the elytra and very distinctly wider than the head; gular sutures extremely feeble, unusually widely separated and but slightly diverging toward base, the intervening space feebly reticulate like the remainder of the surface. Male unknown. Length 3.4 mm.; width 0.65 mm. California (Lake Tahoe).

robustus n. sp.

8 — Body pale brownish-piceous in color throughout, the head and abdomen but slightly darker; surface highly polished and without trace of minute reticulation on the pronotum; form narrow, the head notably narrow and elongate, the eyes only moderate in size, the sides behind them parallel for a long distance, the basal angles broadly rounded, the punctures minute, rather close-set toward the sides and base; prothorax parallel, nearly a fourth longer than wide, with all the angles about equally rounded, obviously narrower than the head, somewhat coarsely but feebly and sparsely punctate; elytra notably elongate, parallel, one-half wider, and about two-fifths longer than the prothorax, finely, feebly and not very densely punctate; gular sutures very fine, rather widely separated, diverging also toward base as usual, the intermediate surface apparently in slight relief and more shining and less reticulate than the remainder. Male secondary characters nearly as in *punctatus*, the truncate lobe of the fifth segment still larger. Length 2.75 mm.; width 0.5 mm. California (Humboldt to Sonoma Co.). *pallidus* n. sp.

Body black or piceous-black in color. 9

9 — Elytra gradually paler posteriorly. 10

Elytra uniformly colored, either black or piceous, concolorous. 11

10 — Form nearly as in *punctatus*, the prothorax relatively shorter and the elytra longer, black in color, the legs blackish with the tarsi paler, the elytra gradually and very nubilously rufescent toward tip; surface shining, the reticulation subobsolete on the pronotum; head of the usual form, the eyes well developed, the punctures fine but unusually strong; antennae moderate, with joints two to four decreasing rapidly in length; prothorax unusually small, sparsely and very feebly though more coarsely punctate, only slightly longer than wide, parallel and straight at the sides, distinctly narrower than the head, the obtuse anterior angles at apical fourth or fifth; elytra unusually elongate, parallel, one-half wider and three-fifths longer than the prothorax; gular sutures moderately separated, very fine, the intermediate surface apparently somewhat concave, more shining and less reticulate than the remainder of the under surface. Male unknown. Length 3.0 mm.; width 0.63 mm. Arizona (Pinal Mts.). *pinalinus* n. sp.

Form rather shorter, black, the legs piceous-black, the tibiae and tarsi gradually paler, brown, the elytra gradually very nubilously piceous toward tip, especially toward the suture; surface polished with the reticulation obsolete; head as in the preceding species, slightly elon-

gate, parallel for a long distance behind the eyes to the broadly rounded angles; prothorax distinctly longer than wide, obviously narrower than the head, subparallel and nearly straight at the sides, rather coarsely, sparsely and only moderately strongly punctate; elytra unusually short, but little longer than wide, the sides very feebly diverging from the base, becoming slightly arcuate posteriorly, about one-half wider than the prothorax but only about a third longer, finely, feebly and rather sparsely punctate; gular sutures moderately separated but obliterated, the intermediate surface not differing materially from the remainder. Male unknown. Length 2.9 mm.; width 0.55 mm. California (Humboldt Co.) **deceptor** n. sp.

- 11—Male with the posterior margin of the fifth ventral segment lobed in the middle 12

Male with the posterior margin of the fifth segment not distinctly lobed.. 13

- 12—Body rather slender, deep polished black throughout, the legs blackish with the tibiae and tarsi gradually paler; reticulation obsolete; head distinctly elongate, with broadly rounded sides basally, the base truncate, the punctures minute but perforate as usual, rather sparse; prothorax very distinctly narrower than the head and obviously longer than wide, more coarsely but sparsely and more or less strongly punctate, parallel and nearly straight at the sides, the apical angles broadly rounded and more than a fifth from the apex; elytra distinctly elongate, parallel, large, about three-fifths wider and longer than the prothorax; gular sutures rather less widely separated than usual and almost completely obliterated. Male with the fifth segment strongly lobed at the middle, the lobe much wider than long, about a fourth as wide as the segment and broadly, transversely truncate at apex, the adjoining surface ovally and somewhat feebly impressed in apical half, the sixth segment with a large angulate notch, somewhat deeper than wide and narrowly rounded anteriorly, with its diverging sides feebly sinuate posteriorly, the surface of the segment narrowly and feebly impressed around and in front of the angle. Length 2.8–3.0 mm.; width 0.5–0.6 mm. California (Truckee, Sonoma and Monterey), Nevada (Reno), Oregon (Albany, Newport and the Dalles) and at various localities in Washington State.

punctatus Csy.

Body nearly as in *punctatus* but more slender and very much smaller, deep polished black throughout, the entire legs and antennae more or less pale brown; head nearly as in *punctatus* but not quite so elongate, the prothorax relatively still narrower and more elongate, as long as the head but much narrower, the sides parallel and straight, the punctures sparse and feeble; elytra relatively narrower and more elongate, parallel, about two-fifths wider and longer than the prothorax, shining and finely, rather sparsely punctate. Male with the secondary characters nearly as in *punctatus*, the lobe of the fifth segment smaller, though equally strong, and not more than a fifth as wide as the segment, more rounded and less truncate at apex, the surface more strongly and cylindrically impressed almost to the base of the segment; notch of the sixth segment almost similar but with its anterior angle rather less narrowly rounded. Length 2.6 mm.; width 0.4 mm. California (Mokelumne Hill, Calaveras Co.), — Dr. Blaisdell **filius** n. sp.

Body moderately slender, deep and shining black throughout, the femora and tibiae blackish, the tarsi and antennae paler, brown; reticulation subobsolete; head as usual, the eyes very well developed; prothorax distinctly longer than wide, much narrower than the head, the sides subparallel and nearly straight, sparsely punctulate, the anterior angles about a fifth from the apex and broadly rounded; elytra notably elongate, one-half wider and longer than the prothorax; gular sutures obliterated, rather widely separated, the intermediate surface polished and smooth, the feeble reticulation of the remainder of the surface being obsolete. Male secondary characters of the sixth segment nearly as in *punctatus*, the hind margin of the fifth having a very short, broadly and evenly rounded lobe in median fifth or sixth, the surface not impressed but having a feeble rounded tumor on the median line at apical third. Length 2.7 mm.; width 0.53 mm. California (Sta. Cruz and San Mateo Cos.).

distinctus n. sp.

- 13—Notch of the sixth segment large, deep and angulate as in *punctatus*, the segment also feebly impressed in front of the emargination as in that species; fifth segment broadly, feebly sinuato-truncate and feebly impressed. Body slender, black or piceous-black in color, shining; head of the usual form, parallel, the antennae gradually and distinctly thickened toward tip; prothorax much narrower than the head, distinctly elongate, parallel, the anterior angles broadly rounded and at apical fourth or fifth, the punctures sparse and feeble; elytra parallel, distinctly elongated, two-fifths wider but only about a third longer than the prothorax; gular sutures fine but evident, moderately separated, the intermediate surface plane and not differing in sculpture. Length 2.75 mm.; width 0.5 mm. California (Pomona and San Bernardino).

fraternus Fall

Notch of the sixth segment in the form of a broadly rounded simple sinus, wider than deep. Body piceous-black, the abdomen black, the legs brown throughout, shining, the head and pronotum finely but distinctly reticulate, the punctures sparse and almost completely obsolete, those of the elytra fine and sparse; head but slightly elongate, the antennae more slender than in *fraternus* and scarcely visibly incrassate distally; prothorax but little longer than wide, much narrower than the head, parallel, the anterior angles broadly rounded and at apical fourth or fifth; elytra distinctly longer than wide, parallel, one-half longer and wider than the prothorax; gular sutures well separated but almost wholly obliterated, the intermediate surface but little smoother than the remainder and becoming broadly concave toward base. Male with the fifth segment broadly, feebly impressed along the middle throughout the length, the apical margin transversely truncate, with a narrow and very feeble arcuation at the middle but scarcely lobed; sixth segment with a broad rounded sinus between two and three times as wide as deep, the surface adjoining anteriorly with a triangular impression having abruptly defined side margins. Length 2.7 mm.; width 0.5 mm. California (Siskiyou Co.) **shastanus** n. sp.

- 14—Rather slender, deep polished black throughout, the reticulation of the head and pronotum wholly wanting, the legs and antennae pale brown, the femora dusky; head scarcely at all longer than wide, of the usual

form and sculpture, the antennae slender and only just visibly incrassate distally; prothorax obviously narrower than the head and distinctly longer than wide, the nearly straight sides just perceptibly converging from the broadly and obtusely rounded anterior angles—at apical fourth or fifth—to the base; elytra convex, polished, finely, sparsely punctured, only very slightly longer than wide, not quite one-half wider and only about a fourth longer than the prothorax; gular sutures subobliterated. Male with the fifth segment wholly unimpressed, the apex broadly, feebly sinuato-truncate; sixth segment with a rounded sinus between two and three times as wide as deep, the adjoining surface feebly impressed in the middle, the impression gradually evanescent anteriorly. Length 3.0 mm.; width 0.5 mm. California (Dunsmuir), — Mr. Wickham.....*cervicula* n. sp.

Fifth segment of the male lobed in the middle at apex and longitudinally impressed, the impression longitudinally divided at base by a short median raised line and becoming posteriorly a spoon-shaped depression, limited at the sides by acutely elevated folds; sixth ventral with a deep oblong-elliptical emargination, which is widest at the middle of its depth, the surface in front of the emargination with a triangular impression having abruptly limited side margins; hind femora stouter than usual and fully as broad as the anterior. California (Marin Co.).

femoratus Fall

I am obliged to place *femoratus* at the end of the table, as no characters are given under the original description enabling me to coördinate it with the other species. Its sexual characters are so distinct that there will be no trouble in identifying the male if found. *Robustulus* closely resembles *punctatus* but is larger and stouter and has the legs notably stouter. A specimen from Truckee, before me, may possibly represent the *montanus*, of Fall, but it seems to be rather smaller, being 2.8 by 0.55 mm. in size, the prothorax obviously narrower than the head, although less so than in most of the species, and the triangular notch of the sixth segment is wider than deep, with its anterior angle well rounded, the transversely rounded part being about a fourth as wide as the entire notch. *Pallidus* has male sexual characters greatly resembling those of *punctatus*, but the less abruptly truncate lobe of the sixth segment is relatively still larger, being nearly a third as wide as the segment and the gular sutures are more widely separated; these characters, in conjunction with the smaller size and different coloration, will readily distinguish the two

species, which are both represented by good series. In the type specimen of *punctatus* there is a small and feeble tumidity on the surface between the gular sutures just behind the support of the mentum, which is probably homologous with the subspiniform process, in the same position, generally characterizing *Pycnorus*; it seems to be an inconstant character in *Pycnorus* and is extremely rare in *Orus* and probably of sporadic or accidental occurrence, as I have only noticed it in this single specimen out of many examined.

Scopaeus Er.

Renewed comparisons of the European and American species — the latter separated by the writer under the name *Leptorus*, — impels him to reverse his former opinion and to unite these with *Scopaeus*. The genus *Scopaeus* will thus include all the European *Scopaei* and the equally numerous American species, as described in the table given below, as well as a number of Mexican and Central American species made known by Dr. Sharp; possibly also many forms inhabiting other parts of the world. Thus extended in geographical distribution, as well as numbers, some variability in generic characters might be anticipated but this seems to be comparatively unimportant. The European species are more linear and parallel, with less apical anterior thoracic angles, as a rule, than the American and with the suture separating the pronotal hypomera better developed; in addition the basal joint of the hind tarsi is generally more decidedly longer than the second. In the American species the basal joint is usually subequal to the second, but in *picipes* it is notably longer than the second as in the European forms, and, in at least one European species before me, the two basal joints are equal. The sculpture of the European species is generally coarser and less dense than that of the American, but I can find no character of sufficient importance or constancy to warrant generic separation. The large spongy-pubescent fovea immediately above each eye is present throughout but rather more developed in the European species. It is singular

that representatives of so widely distributed a genus should be wanting in the true Pacific coast faunal region of the United States, if we except the extreme southern part of California, and this is rather conclusive evidence that the genus migrated from America to Europe, or the reverse, by way of Greenland, rather than by the usual Alaskan route and probably indicates a European rather than American origin. The species inhabiting our territory, known to me thus far, may be distinguished by the following outline descriptions:—

- Elytra subequal to or longer than the prothorax.....2
 Elytra more or less distinctly shorter than the prothorax.....18
 2 — Male with a subparallel-sided, narrow notch at the apex of the sixth ventral segment, the bottom of the notch broadly and transversely rounded.....3
 Male with a broad emargination occupying virtually the entire apex of the sixth segment, the notch having the form of an incised cusp, the widely diverging sides of the emargination being broadly arcuate.....4
 3 — Form parallel, the lustre feebly shining, pale brownish-testaceous throughout, except the elytra, which are dusky and the abdomen blackish-piceous; head moderate, convex, slightly longer than wide, the sides parallel and straight behind the well developed convex eyes; base broadly sinuato-truncate, the angles rather narrowly rounded; occiput not impressed, the punctures minute but deep, dense; prothorax distinctly though not very greatly narrower than the head, about a fifth longer than wide, the anterior angles obtuse but very evident and at apical fourth, the sides thence very feebly converging and almost straight to the moderately rounded basal angles; surface more shining than the head, the very minute punctures feebler and less close-set, feebly bi-impressed at the basal margin; elytra nearly a fifth longer than wide, parallel, two-fifths wider and about a third longer than the prothorax, very minutely, closely, subasperately punctate; gular sutures well separated. Male with a small subparallel-sided notch somewhat deeper than wide at the apex of the sixth ventral, the bottom of the notch broadly rounded with the edge beveled or concave. Length 2.6 mm.; width 0.45 mm. Texas (El Paso) and New Mexico, — Mr. Wickham.....*texasus* Csy.
 Form less parallel, the elytra relatively much wider, similar in coloration, the lustre alutaceous, the minute sculpture rather denser; head well developed, but little longer than wide, larger than in *texasus* but otherwise nearly similar; prothorax relatively smaller and narrower, much narrower than the head, fully a fifth longer than wide, similar to that of *texasus*, except that the basal angles are more broadly rounded and the two basal impressions more approximate; elytra subquadrate, parallel, only just visibly longer than wide, one-half wider than the prothorax but only about a fourth longer; gular sutures more approximate, the punctures of the under surface of the head denser and more

asperate. Male having a notch at the apex of the sixth ventral similar to that of *texasus* but much less deep, rather wider than deep. Length 2.8 mm.; width 0.5 mm. Arizona (Yuma), — Mr. Wickham.

- gilensis* n. sp.
 4 — Occiput finely cleft at the middle of the base; anterior angles of the prothorax sometimes more rounded and less apical than usual; gular sutures narrowly separated.....5
 Occiput not modified at base or, rarely, slightly and broadly impressed at the middle; gular sutures more or less widely separated.....6
 5 — Body stout and parallel, very densely punctulate and dull in lustre, dark piceous-brown in color, the head rather darker, the legs and antennae very pale; head large, scarcely at all longer than wide, of the usual form otherwise, the eyes well developed and convex; antennae as long as the head and prothorax combined; prothorax slightly longer than wide, very much narrower than the head, parallel and nearly straight at the sides, the anterior angles obtuse but only very slightly rounded and somewhat behind apical fourth; elytra parallel, about a fifth longer than wide, scarcely two-fifths wider than the prothorax and one-third longer; gular sutures very approximate, the intermediate surface concave anteriorly, the under surface of the head flat, finely but strongly, extremely densely punctulate. Occipital cleft very fine. Male unknown. Length 2.4 mm.; width 0.5 mm. Alabama.

- crassulus* n. sp.
 Body parallel but less stout and rather more convex, dark piceous-brown in color, the head and abdomen blackish, the legs and antennae pale throughout; head extremely densely punctured and dull, the pronotum and elytra less densely so and feebly shining; head nearly as in the preceding species, the eyes rather less developed and the antennae decidedly shorter, thicker and more incrassate distally, much shorter than the head and prothorax combined; prothorax narrower and more elongate, nearly a third longer than wide, much narrower than the head, the sides distinctly converging and feebly arcuate from the very obtuse and rather broadly rounded anterior angles — situated nearly at apical third — to the broadly rounded basal angles, the disk broadly impressed at each side of the median line toward base; elytra evidently longer than wide, about a third wider and one-fifth longer than the prothorax; gular sutures slightly less approximate, the intervening surface nearly flat. Occipital cleft rather coarse, deep and distinct. Male unknown. Length 2.7 mm.; width 0.45 mm. North Carolina (Asheville).....*carolinae* n. sp.
 6 — Eyes but slightly convex, not distinctly prominent and unusually small. Body very small, slender and parallel, rather shining, the punctures throughout very minute and sparse, the pronotum less shining because of stronger micro-reticulation; color pale flavo-testaceous throughout, the abdomen slightly dusky excepting toward apex; head narrow, unusually elongate, the sides parallel, gradually becoming arcuate basally, the base narrower than the disk, the angles obtuse but only slightly rounded; prothorax distinctly elongate, nearly as long as the head and only slightly narrower, the sides very feebly converging from the obtusely rounded anterior angles at apical fifth or sixth to the

- rather broadly rounded basal angles and nearly straight; elytra small, only slightly longer than wide, but little wider than the head, about a fourth wider than the prothorax but only just visibly longer; pronotal hypomera very narrow and feebly developed. Male unknown. Length 1.9 mm.; width 0.32 mm. Texas (Austin).....**longiceps** Csy.
- Eyes always convex and more or less conspicuously prominent..... 7
- 7 — Elytra much longer than the prothorax..... 8
- Elytra but slightly longer than the prothorax..... 13
- 8 — Punctures of the under surface of the head rather coarse. Body very slender, piceous, the head and prothorax dark rufous, the legs and antennae paler; surface rather more shining than usual; sides of the prothorax slightly converging from the anterior angles; elytra fully one-third longer than the prothorax. Length 2.2 mm. California (Pomona).....**longipennis** Fall
- Punctures of the head above and beneath very fine as usual..... 9
- 9 — Legs piceous in color, the tarsi paler. Body subparallel, the elytra much wider than the head, black or blackish throughout, the antennae dusky; integuments strongly alutaceous; head moderately developed, of the usual form, the basal angles well rounded; prothorax distinctly longer than wide and narrower than the head, subparallel at the sides, the anterior angles rather broadly rounded and at apical fourth; elytra obviously longer than wide, parallel, two-fifths wider and fully a fourth longer than the prothorax, parallel and nearly straight at the sides, the suture frequently finely rufous; gular sutures only moderately separated. Length 2.3 mm.; width 0.45 mm. Sea-beaches of New Jersey, Florida (Biscayne Bay) to Texas (Galveston).....**picipes** Csy.
- Legs invariably very pale in color throughout..... 10
- 10 — Body in great part piceous or blackish in color..... 11
- Body pale testaceous, the abdomen sometimes dusky..... 12
- 11 — Body larger and subparallel, the elytra much wider than the head, the elytra and abdomen throughout black or blackish, the head and prothorax very dusky and dark rufo-testaceous, the elytral suture generally somewhat rufescent; lustre feebly shining; head well developed, somewhat distinctly longer than wide, the basal angles well rounded, the eyes prominent and conspicuous; antennae rather slender, much shorter than the head and prothorax combined; prothorax evidently elongate and narrower than the head, the sides subparallel and nearly straight, the anterior angles obtuse and slightly rounded and at apical fourth; elytra distinctly longer than wide, two-fifths wider and about a fourth longer than the prothorax; gular sutures moderately separated. Notch of the sixth male ventral notably deep. Length 2.6 mm.; width 0.45 mm. Arizona (Tucson) and Texas (Austin and Waco).
- arizonae** n. sp.
- Body parallel, the elytra being only slightly wider than the head, feebly shining, piceous-black throughout, except the prothorax, which is somewhat dusky rufo-testaceous, and the outer apical angles of the elytra, which are nublously pale; head rather large, not longer than wide, of the usual parallel form and with somewhat narrowly rounded basal angles, the antennae, as usual, much shorter than the head and prothorax; eyes prominent but only moderate in size; prothorax only

- very slightly longer than wide and but little narrower than the head, parallel and straight at the sides from the obtuse and slightly rounded angles at apical fifth to the rather broadly rounded basal angles, the longitudinal impression at each side of the median line in basal third distinct; elytra somewhat longer than wide, about a third wider and one-fourth longer than the prothorax; gular sutures rather widely separated, the under surface of the head broadly and feebly convex, shining, finely, rather sparsely punctulate. Male secondary characters as in *arizonae*. Length 2.4 mm.; width 0.4 mm. Iowa to Lake Superior.
- notangulus** n. sp.
- 12 — Form slender and parallel, the elytra being but little wider than the head; abdomen piceous, gradually paler at tip; surface noticeably shining, the minute punctules only moderately close-set throughout; head well developed, as wide as long, parallel or subparallel at the sides, the eyes moderately large, convex and prominent, the base distinctly sinuato-truncate, the angles moderately rounded; antennae rather short; prothorax but little longer than wide, obviously although not greatly narrower than the head, the sides distinctly converging and straight from the obtuse but scarcely at all rounded angles near apical fifth, to the feebly rounded basal angles, the median line slightly and obtusely elevated very near the base; elytra relatively small, slightly longer than wide, not quite a fourth wider and about one-fifth longer than the prothorax, the sides just visibly diverging from the basal angles; gular sutures widely separated, the under surface of the head sparsely punctulate and shining though feebly reticulate. Broadly angulate notch of the sixth male ventral much shallower than in the preceding species but of the same form. Length 2.1–2.4 mm.; width 0.3–0.35 mm. Texas (Austin). [= *bicolor* Csy.].....**versicolor** Csy.
- Form less slender and not parallel, the elytra much wider than the head, pale dusky-testaceous throughout, the prothorax rather brighter rufous; surface somewhat strongly shining; head well developed, as wide as long, the eyes rather large, prominent; antennae slender, but little shorter than the head and prothorax, pale in color; prothorax relatively small, notably elongate, much narrower than the head, the sides very slightly converging and not quite straight from the obtuse and rather broadly rounded angles near apical fourth, to the less obtuse but rounded basal angles, the median line prominent only very near the base; elytra unusually developed, a fourth longer than wide, about two-fifths wider and a third longer than the prothorax; gular sutures moderately separated, rather deeper than usual, the under surface of the head rather closely and strongly punctulate. Male unknown. Length 2.3 mm.; width 0.45 mm. New York (Hudson Valley).
- hudsonicus** n. sp.
- 13 — Species of the Atlantic coast regions..... 14
- Species of the Sonoran region..... 17
- 14 — Head but little longer than wide, body only moderately slender..... 15
- Head elongate; body extremely slender..... 16
- 15 — Body parallel, alutaceous in lustre, the abdomen black or blackish, feebly paler toward tip, the head and elytra blackish-piceous, the prothorax dusky testaceous, the legs and antennae pale throughout; head

of the usual form, very minutely, densely punctulate and rather strongly, more sparsely so beneath; antennae obviously shorter than the head and prothorax, the latter slightly longer than wide and usually but little narrower than the head, the sides subparallel or very feebly convergent from the obtuse and slightly rounded angles at apical fourth or fifth, the punctures less dense than those of the head; elytra not or but very slightly longer than wide, much wider than the head, parallel, about a fourth wider but only just visibly longer than the prothorax; gular sutures well separated. Length 2.4 mm.; width 0.4 mm. Rhode Island and New York (Hudson Valley).....*exiguus* Er.

Body resembling *exiguus* in coloration but smaller and rather more slender, alutaceous as usual, the punctures of the under surface of the head smaller and feebler; head, antennae and prothorax nearly similar, the elytra however relatively much narrower and only just visibly wider than the head, parallel, quite distinctly longer than wide, scarcely more than a sixth wider and but slightly longer than the prothorax, sculptured as usual. Length 2.3 mm.; width 0.35 mm. North Carolina (Asheville).....*macilentus* n. sp.

Body somewhat resembling the two preceding in form and sculpture but with the prothorax relatively narrower and more elongate; color pale flavo-testaceous throughout, the head but slightly, and the abdomen not at all, darker; head well developed, of the usual form; prothorax much narrower than the head and more shining, fully a fifth longer than wide, the sides behind the obtuse and rather broadly rounded angles at about apical fifth subparallel; elytra parallel, only very slightly longer than wide, but slightly though obviously wider than the head, fully a third wider but only just visibly longer than the prothorax. Male unknown. Length 2.3 mm.; width 0.38 mm. New York (Hudson Valley).....*degener* n. sp.

16 — Coloration as in *exiguus*; form parallel, the lustre alutaceous, the pronotum more shining as usual; head distinctly elongate, the eyes larger than usual and situated at obviously less than twice their own length from the base; prothorax much narrower than the head and distinctly elongate, the sides very feebly converging behind the obtusely rounded angles at apical fifth and nearly straight; elytra obviously though not greatly wider than the head, nearly a fifth longer than wide, parallel, about a fourth wider and slightly longer than the prothorax; gular sutures well separated as in the three preceding species. Male unknown. Length 1.8 mm.; width 0.3 mm. North Carolina (Asheville).

angustissimus n. sp.

17 — Slender, parallel, rufo-testaceous, the elytra and abdomen fuscous, the former with the suture narrowly and indefinitely paler; antennae and legs pale; lustre alutaceous, the pronotum more shining; head slightly longer than wide, of the usual form, densely punctulate; prothorax narrower than the head, a little longer than wide, with the sides behind the strongly obtuse and rounded subapical angles parallel; elytra about a fourth longer than wide, distinctly wider and slightly longer than the prothorax, sculptured as usual. Sixth ventral in the male rather deeply, triangularly emarginate, the emargination as wide

as deep and scarcely rounded at the bottom. Length 1.9–2.4 mm. California (Palm Springs — on the western border of the Colorado Desert).

californicus Fall

18 — Elytra only slightly shorter than the prothorax. Body slender, parallel, small in size, colored as in *exiguus* and similarly sculptured, the punctures of the rather convex under surface of the head less evident; head well developed, distinctly elongate, parallel at the sides, the convex eyes at twice their length from the base; antennae shorter than the head and prothorax, rather stout and only very feebly and gradually incrassate distally; prothorax much longer than wide, only just visibly narrower than the head, the sides subparallel behind the obtuse and slightly rounded angles at apical fifth; elytra scarcely visibly wider than the head, parallel, slightly elongate, distinctly wider and only very slightly shorter than the prothorax; gular sutures well separated. Length 2.0 mm.; width 0.32 mm. New York, Virginia (Fort Monroe) and Mississippi (Vicksburg).....*delicatus* n. sp.

Elytra very much shorter than the prothorax.....19 — Body extremely slender, pale ochreo-testaceous in color throughout; parallel in form, the lustre rather shining and only moderately alutaceous; abdomen faintly dusky except toward tip; head large, but little longer than wide, rather wider near the base than across the eyes, which are convex and at about twice their length from the base as usual; antennae rather thick, much shorter than the head and prothorax, distinctly incrassate distally; prothorax evidently elongate, much narrower than the head, the sides feebly convergent behind the obtuse and somewhat rounded angles, the latter near apical fourth; elytra very small, much narrower than the head, barely as long as wide, scarcely visibly wider than the prothorax and only about three-fourths as long, the sides feebly diverging from the basal angles; abdomen subequal in width to the elytra; gular sutures well separated. Notch of the sixth ventral in the male of the usual form though less deep than in *exiguus*. Length 2.4 mm.; width 0.38 mm. Iowa (Iowa City), — Mr. Wickham.

brachypterus n. sp.

Body notably stout, parallel, strongly alutaceous, the pronotum more shining.....20

20 — Color dark piceous, the abdomen blackish, the prothorax, legs and antennae dusky-testaceous; head large, not longer than wide, parallel, the eyes moderate and at fully twice their length from the base; antennae well developed, subequal in length to the head and prothorax, distinctly incrassate distally; prothorax stout and but little longer than wide though obviously narrower than the head, the sides feebly converging and somewhat arcuate behind the obtusely rounded angles at apical fourth; elytra about as long as wide, not quite as wide as the head, very slightly wider than the prothorax and about four-fifths as long; gular sutures well separated. Notch of the sixth ventral of the male normal in form. Length 2.6 mm.; width 0.48 mm. Alabama.

saginelus n. sp.

Color and general form nearly as in *saginelus*, the anterior parts and legs paler, the pronotum pale testaceous; head large, not longer than wide, the eyes well developed and at barely twice their own length from the

base; antennae very much shorter than the head and prothorax, slender and not distinctly incrassate distally; prothorax nearly as in *saginellus* but only very slightly narrower than the head, the anterior angles at apical fifth; elytra smaller, barely as long as wide, slightly narrower than the head, equal in width to the prothorax and barely three-fourths as long, the sides just visibly diverging from the base. Length 2.5 mm.; width 0.45 mm. Texas (Houston) **quadripennis** n. sp.

A number of female types are included in the above table, but, as the parallel-sided notch of the sixth male ventral is a very exceptional character, all but *texanus* and *gilensis* are assumed to have the broad notch in the form of an acute incised cusp with broadly diverging and arcuate sides. In all the males having the latter type of emargination, which I have been able to examine, the form is very constant, varying only in degree, so that it is seldom mentioned in the descriptions, even when the male is at hand, and I have assumed that the triangular emargination of *californicus*, mentioned by Fall, is really of the same character, though in this case the notch appears to be somewhat deeper than usual. *Arizonae* seems to differ from *californicus* Fall, in its larger size and relatively less slender and parallel outline. *Notangulus* is closely allied to *exiguus* but is distinguished by the notably more elongate elytra, when compared with the prothorax. *Degener* is represented by a single specimen of a very unusual pale and uniform coloration, but exhibiting scarcely any other evidence of immaturity; it is distinguishable from *exiguus*, however, by its narrower and relatively more elongate prothorax. The last three species of the table are of remarkably aberrant form, owing to their very short elytra, but the male sexual characters are of the usual type. *Saginellus* and *quadripennis* are each represented by a single male, the species differing principally in the antennae, relative size of the elytra and prothorax, and, somewhat, in the eyes and relative form and degree of separation of the gular sutures. Both *longipennis* and *californicus* are unknown to me, and the above outlines are derived from the original diagnosis as published by Mr. Fall (Occas. Papers, Cal. Acad. Sci., viii).

Scopaeoma n. gen.

In a certain sense this genus and the two following form a group differing greatly from the broad-necked genera in some peculiarities of sculpture. In *Orus* and related genera, the punctures of the pronotum are very much larger as well as sparser than those of the head, while in *Scopaeoma*, *Scopaeopsis* and *Scopaeodera*, the thoracic punctures are, when present at all, equal to or smaller and sparser than those of the head; but in the first alone are they distinctly visible. In the second all the punctures become so minute as to be nearly invisible and entirely filled by the bases of the fine hairs constituting the pubescence, while in the last the punctuation becomes wholly lost and the surface glabrous. The present genus approaches *Scopaeus* more closely than the other two in the nearly parallel and less convex form of the body and in the much shorter and somewhat thicker tarsi, with a form of the prothorax nearly similar to that of *Pycnorus*. The species are moderately numerous and extend over the entire northern part of the continent from the Atlantic to the Pacific, those known to me being distinguished as follows: —

- Head almost semicircularly rounded at base, smaller in size and relatively more elongate..... 2
- Head large, broadly truncate at base, scarcely at all longer than wide... 5
- 2 — Head distinctly wider than the prothorax..... 3
- Head subequal in width to the prothorax, never more than very slightly wider..... 4
- 3 — Body slender, black, the legs pale brown throughout, the punctures fine and dense, less dense on the pronotum than on the elytra; head elongate, broadly concave between the antennal prominences. Male with a large oval concavity at the apex of the fifth ventral and a subquadrate emargination formed in part by short prolongations of the sides of the concavity, the floor of the concavity smooth, with a narrow, slender, posteriorly inclined, acutely attenuate spine, bearing at each side near its apex a short seta projecting laterally; sixth segment with a simple subparabolic sinus wider than deep and about a third as wide as the segment; middle tibiae somewhat abruptly thickened from behind the middle to the apex. Length 2.9 mm.; width 0.5 mm. Vancouver Island.
brunnipes Lec.
- Body parallel, rather convex, shining, black or slightly piceous in color, the legs piceous-black with the tarsi pale brown, the antennae dark brown;

pubescence throughout short, fine, decumbent and moderately abundant; head longer than wide, finely but strongly, closely punctate, the punctures especially dense toward base and sides; eyes rather small but convex and prominent, at more than twice their own length from the extreme base, the sides behind them parallel for a short distance, then broadly rounding into the semicircular base, which is somewhat subtruncate toward the middle especially in the female; front between the antennal tubercles broadly, strongly impressed; antennae slightly shorter than the head and prothorax, moderately slender, feebly incrassate, the cylindric basal joint much longer than the next two, the succeeding three decreasing slowly in length; prothorax nearly a third longer than wide, distinctly although not very greatly narrower than the head, widest near the middle, the sides subparallel and broadly arcuate, rapidly converging and becoming just visibly sinuate in anterior fourth to the very narrow neck, the punctures sparse, very fine, more distinct and feebly asperate toward base; elytra nearly a fourth longer than wide, very much wider than the head, two-fifths wider and a fourth longer than the prothorax, parallel, the punctures close-set, larger than those of the head and rather strongly asperate; abdomen parallel, slightly narrower than the elytra; legs moderately short and rather slender. Male with a broadly oval deep and distinctly though not acutely limited oval impression, occupying median third of the fifth ventral and extending almost to the base, its floor shining and having, posteriorly, a suberect acutely triangular process; posterior margin of the segment with a large, subquadrate emargination, the acute and subparallel sides of which are in great part formed by acute processes in prolongation of the sides of the impression, the emargination as deep as the length of the impression before it; sixth segment with a large oval impression having a flat floor, the apical margin with a simple rounded sinus about three times as wide as deep; middle tibiae nearly as in *brunnipes*. Length 3.2 mm.; width 0.66 mm. Massachusetts, — Mr. F. Blanchard.....*puritana* n. sp.

Body shining, black in color, almost similar to *puritana*, except that the head is evenly and semicircularly rounded at base and not broadly subtruncate toward the middle and more obviously elongated, with the punctures of the head and prothorax rather more close-set and the transverse impressions at the base of the abdominal segments more pronounced; form very slightly less slender. Male unknown. Length 3.3 mm.; width 0.68 mm. California (Contra Costa Co.).

rotundiceps Csy.

- 4 — Form, color and sculpture nearly similar to *brunnipes* but more slender and elongate, the legs piceous-brown throughout; head narrower and more elongate, the sides straight and parallel for half the distance from the eyes to the extreme base, measured longitudinally, then almost evenly and semicircularly rounded, feebly subtruncate toward the middle of the base; prothorax only just visibly narrower than the head; elytra narrower and more elongate, the sides parallel. Male having secondary sexual characters nearly similar to those of *brunnipes*, except that the prolongations of the apex of the fifth ventral — forming the sides of the large subquadrate emargination — are flexed more strongly inward toward tip, that the large oval flat impression of the sixth segment is

longitudinally divided anteriorly by a tumid ridge and that the sinus at the apex is rather smaller and about twice as wide as deep. Length 3.7 mm.; width 0.55 mm. Colorado (Salida), — Mr. Wickham.

procera n. sp.

Form nearly similar to the preceding, slender, polished, black, the legs black with the tarsi pale; head narrow, elongate, the sides parallel for rather more than half the longitudinal distance from the eyes to the middle of the base, then semicircularly rounded, not subtruncate medially; prothorax about equal in width to the head, elongate, the sides subparallel, broadly arcuate, very obtusely subangulate at apical fourth; elytra parallel, evidently elongate, nearly one-half wider and a fourth longer than the prothorax, impressed on the suture behind the scutellum; legs rather slender. Male having a deep and elongate-oval impression occupying median third of the fifth ventral and extending virtually to the base, the posterior margin with a transverse emargination, the sides of which are formed by rather short obtuse prolongations of the sides of the impression, the emargination not quite one-third as deep as the length of the impression before it, the posterior margin of the impression very feebly lobed and pubescent at the middle but without an acute subelevated process; sixth segment with a large simple apical sinus about three times as wide as deep, the surface before it apparently somewhat impressed. Length 3.4 mm.; width 0.55 mm. Nevada (Reno).....*angusticeps* n. sp.

- 5 — Body elongate, parallel, somewhat stouter than *angusticeps*, shining, black, the legs and antennae red-brown throughout; head well developed, rather wider just before the basal angles than across the eyes, the latter at nearly three times their own length from the base, which is broadly, transversely truncate, the angles moderately broadly rounded; prothorax elongate-oval, scarcely three-fourths as wide as the head, rapidly narrowed anteriorly as usual; elytra notably elongate, parallel, nearly one-half wider and a third longer than the prothorax, the punctures fine and scarcely at all asperate; abdomen subparallel, much narrower than the elytra and not quite as wide as the head. Male unknown. Length 3.9 mm.; with 0.63 mm. California (Mendocino Co.).....*truncaticeps* Csy.

The description of *brunnipes*, given above, is from some pencil notes taken by the author some years ago from the original type. It is a smaller and more slender species than the eastern *puritana*, the latter differing also in having the spiniform process of the fifth ventral broader, more triangular and pubescent, though having the same subterminal single lateral setae, and the sinuation of the sixth segment is smaller and rather more broadly rounded. The spiniform process in *brunnipes*, as well as the posterior part of the concavity, is completely glabrous. The Californian *rotundiceps* Csy., is sim-

ilar but larger and has the legs colored as in *puritana*. I have assumed that the head in *brunnipes* is distinctly wider than the prothorax but appear to have made no note on this point; the original description of LeConte is wholly inadequate. The species described in the table under the name *angusticeps* is founded upon a specimen which I formerly regarded as the male of *rotundiceps* (Bull. Cal. Acad. Sci., 6, p. 218) but more careful comparisons indicate the impropriety of this association. There are before me two forms allied closely to *brunnipes*, which are left undescribed for the present; they occur at Lake Superior and in Montana (Kalispell).

Scopaeopsis n. gen.

This genus is one of the most isolated of the Scopaei, not only in general habitus and comparatively large size of its species, but by reason of labral structure, long slender tarsi — a character shared only with *Scopaeodera* — and elaborate secondary sexual modifications of the male. The integuments are clothed rather sparsely with very fine short and decumbent hairs and the punctures are, except on the elytra of certain species, excessively minute or subobsolete, being practically filled by the bases of the minute hairs. The species are moderately numerous, inhabiting the entire eastern parts of our territory, not known to me to extend west of the 100th meridian and entirely unknown to the Sonoran and Pacific coast faunas. The five species in my cabinet may be indicated as follows:—

- Elytra large, as wide as the head or wider.....2
- Elytra smaller, more or less distinctly narrower than the head; male sexual characters complex.....5
- 2— Male sexual modifications comparatively simple.....3
- Male sexual characters complex; elytral punctures stronger and rugose...4
- 3— Subparallel, rather convex, moderately shining, the pale pubescence rather conspicuous, piceous-black, the head and pronotum dusky testaceous, the antennae dusky, pale toward tip; legs slender, the femora pale honey-yellow, the knees, tibiae and tarsi dusky or piceous; head scarcely longer than wide, the eyes well developed, convex and prominent, at about twice their length from the base, measured longitudinally as usual, the sides behind them very feebly converging, then broadly rounded into the semicircular base; antennae not as long as the head and prothorax, slender, not distinctly incrassate, the joints much more

- cylindric in form than in the other genera, the basal joint long, not quite equaling the next three combined; prothorax distinctly elongate, three-fourths as wide as the head, broadly rounded and subparallel at the sides, the latter more strongly converging and becoming very feebly sinuate to the nuchal collar which is half as wide as the base; elytra parallel, distinctly longer than wide, very slightly wider than the head, nearly a third wider and one-fourth longer than the prothorax, the apical margin narrowly and abruptly yellow in color; abdomen throughout very much narrower than the elytra, at base four-fifths as wide as at the apex of the fourth segment. Male with ventrals two, three and four narrowly and simply impressed in the middle, the fifth not distinctly modified, the sixth with a very large notch occupying its entire width and three or four times as wide as deep, the notch having the form of an incised cusp with widely diverging arcuate sides and with the angle right and not rounded, the surface scarcely at all impressed. Length 3.8 mm.; width 0.7 mm. District of Columbia, North Carolina (Asheville) and Mississippi (Vicksburg).....*opaca* Lec.
- 4— Body elongate, subparallel, convex, rather shining with the elytra and abdomen duller, piceous-black throughout, the narrow apical margin of the elytra and the legs throughout pale honey-yellow, the antennae similar in color, the funicle dusky toward base; head scarcely as long as wide, the eyes well developed and prominent, the sides behind them parallel for about their own length, then broadly rounded into the truncate base; antennae slender, feebly incrassate; prothorax shorter and stouter than in *opaca* but otherwise nearly similar, about four-fifths as wide as the head, rapidly narrowed in apical third; elytra parallel, much longer than wide, equal in width to the head, about a fourth wider and longer than the prothorax; abdomen at the apex of the fourth segment equal in width to the elytra, much narrower at base. Male with ventrals two to five strongly impressed along the middle, the impressions increasing in width from a sixth or seventh as wide as the segment on the second to nearly one-half the total width on the fifth, those of segments two to four nearly similar in character and abruptly limited at the sides, that of the fourth with a small tooth at each side at apex and a larger acute tooth in the middle very near the apex, that of the fifth broadly oval, nearly flat, with the sides strongly convex but not acute, the apex broadly sinuate along the impression; sixth segment broadly, biobliquely impressed, the apex with a large simple subangulate sinus about three times as wide as deep. Length 3.9 mm.; width 0.65 mm. Texas (Galveston).....*elaborata* n. sp.
- Body similar to that of *elaborata* but shorter and slightly stouter, pale dusky testaceous in color throughout, the antennae concolorous, feebly paler distally, the apical margin of the elytra and entire legs pale honey-yellow; head relatively larger, the basal angles still more broadly rounded; prothorax somewhat smaller and less stout, elongate, rapidly narrowed at apex as usual and scarcely three-fourths as wide as the head; elytra shorter and relatively wider, but little longer than wide, equal in width to the head; abdomen narrow at base, more rapidly broadening posteriorly. Male unknown. Length 3.5 mm.; width 0.7 mm. Central Texas.....*pallens* n. sp.

5—Form slender, convex, rather shining, the elytra and abdomen dull in lustre, piceous-black, the head, prothorax and entire antennae dusky testaceous, the legs paler, flavo-testaceous throughout; head large, the eyes moderately developed, the sides behind them very feebly converging and nearly straight for a long distance, then broadly rounded into the broadly subtruncate base; front not impressed; prothorax large, elongate-suboval, three-fourths as wide as the head and of the usual form; elytra small, very finely but densely, asperately punctate, parallel, slightly longer than wide, much narrower than the head, scarcely visibly wider than the prothorax and equal in length to the latter; abdomen at base very nearly as wide as the elytra, rapidly broadening posteriorly, and, at the apex of the fourth segment, much wider than the elytra and as wide as the head. Male with sexual modifications nearly similar to those of *elaborata* but differing in having the medial tooth of the impression of the fourth ventral more anterior in position and somewhat distant from the transversely rectilinear apical edge of the depression and in having the broad shallow impression of the fifth ventral transversely oblong with parallel and much straighter sides, the apex along the impression broadly and triangularly emarginate throughout the width of the latter; subtriangular sinus of the sixth segment larger, but little more than twice as wide as deep. Length 3.5-3.8 mm.; width 0.6-0.65 mm. New York (Long Island) and North Carolina (Asheville).....*ventralis* n. sp.

Form rather less slender but otherwise nearly similar throughout to *ventralis*, the coloration similar; head relatively smaller though more elongate, rather longer than wide, the base evenly, semicircularly rounded throughout, becoming parallel for a short distance behind the eyes; prothorax large, nearly five-sixths as wide as the head, longer than wide, strongly rounded at the sides; elytra relatively larger than in *ventralis*, but little narrower than the head and slightly wider than the prothorax, equal in length to the latter, longer than wide, parallel, minutely, densely and asperately punctate; abdomen at base but little narrower than the elytra, moderately broadening posteriorly, at the apex of the fourth segment rather wider than the head. Male having sexual characters similar in general to those of *ventralis*, the teeth at the sides of the apex of the impression of the fourth ventral much smaller and not at all conspicuous, the medial tooth more elongate but not very much more posterior in position, the impression of the fifth segment nearly similar in form and extent but with its posterior margin feebly and subcircularly sinuate toward the middle, the sinus of the sixth ventral nearly similar but rather smaller and shallower, the surface feebly and biobliquely impressed. Length 3.9 mm.; width 0.68 mm. Ohio (Cincinnati), — Mr. Charles Dury.....*duryi* n. sp.

The coloration of the legs in *opaca* — which was originally described as an *Echiaster*, — is inconstant, some specimens having them a uniform clear honey-yellow throughout, while others have the tibiae almost piceous-black and the tarsi but

slightly paler. Although *pallens* is represented by the female only, I have before me two specimens which are mutually perfectly similar and its pale color is doubtless a specific character.

Scopaeodera Csy.

Among the genera of Scopaei having the basal joint of the hind tarsi elongated—a peculiar and very interesting series, apparently most highly developed in the American continents,—*Scopaeodera* is greatly isolated in habitus because of the highly polished, glabrous and subimpunctate integuments and presence of long stiff tactile setae. The species also differ from the others in their comparatively simple secondary male sexual characters and in having the middle pair of labral teeth alone developed, the exterior teeth being obsolete or extremely minute. They are almost exclusively tropical in range and in all probability numerous, but only two have been discovered thus far in our southwestern territories. A number of them were described by Dr. Sharp in the "Biologia" as *Scopaerus*, under group "4," and the Colombian *pulchellus* Er. and Amazonian *distans* Shp., among others, also belong here. Our two species may be readily identified by the following characters:—

Form rather slender, notably convex, polished throughout and pale flavo-testaceous in color, each elytron clouded with piceous-black behind the middle except at apex, the abdomen also largely blackish toward tip; erect tactile setae sparse, shorter on the elytra and in the single transverse discal series of the abdominal segments; elytra with long, coarse suberect and very sparse hairs in addition, the abdomen with very fine and moderately close-set pale pubescence; head rather small, longer than wide, the eyes large, convex and prominent, at a little less than twice their length from the base, the sides behind them converging and straight for a short distance, then very broadly rounded into the subtruncate median parts of the base; antennae moderately thick, feebly incrassate, not as long as the head and prothorax, with the cylindric basal joint longer than the next two together; prothorax very slightly narrower than the head, longer than wide, widest and obtusely subangulate laterally at apical fourth, the sides thence gradually converging and broadly arcuate to the base and very rapidly converging and feebly sinuate to the narrow neck, the surface strongly convex, impunctate; elytra slightly elongate, parallel and broadly arcuate at the sides, nearly

one-half wider and a fourth longer than the prothorax and very much wider than the head, broadly convex, impressed on the suture toward base; abdomen toward base much narrower than the elytra but rapidly broadening, so that the apex of the fourth segment is somewhat wider than the elytra, the fifth segment obtrapezoidal and nearly as long as the two preceding combined; legs slender. Male with the fifth ventral unmodified, the sixth having a triangular incisure at apex about one-half deeper than wide, the surface feebly impressed in prolongation thereof. Length 3.2 mm.; width 0.55 mm. Texas (Houston and Luling) *nitida* Lec.

Form, sculpture and coloration almost completely similar to *nitida*, the dark subapical cloud of the abdomen usually confined to the discal parts of the fifth segment only and the general color rather paler than in *nitida*; head nearly similar but with much less broadly rounded basal angles, the truncate part of the base wider and more transverse; prothorax nearly similar, the elytra larger and relatively more elongate, the abdomen notably broader and less dilated posteriorly, the fifth segment much shorter than the two preceding. Male with the fifth ventral unmodified, the sixth having a moderately large notch at apex, the emargination triangular with straight sides and angulate apex and nearly twice as wide as deep, the adjacent surface not at all impressed. Length 3.1 mm.; width 0.6 mm. California (Yuma and the Needles). *sonorica* n. sp.

These species are both rather abundant and somewhat resemble certain ants in their movements and coloration. *Nitida* was originally described under the generic name *Echiaster*.

STILICI.

The few generic types of this well-marked subtribe are remarkably consistent in the form of the tarsi, neck and gular sutures and differ among themselves principally in modifications of the labrum, maxillary palpi, prosternum and sculpture of the integuments. The hind tarsi are more or less elongate throughout, with the basal joint always distinctly longer than the second and sometimes as long as the next two combined but varies considerably in relative elongation, even within the limits of *Stiliculus* itself. The neck is always very slender and not variable in width, as it is in the *Scopaei*, and the gular sutures are invariably coalescent and unified at least toward base. The anterior tarsi are generally very slightly dilated and spongy-pubescent beneath. The genera known to me may be briefly described as follows:—

- Labrum broadly rounded or subtruncate at apex, the teeth two in number, more or less aciculate and always approximate; second joint of the maxillary palpi much shorter than the third; anterior tarsi finely, densely pubescent beneath; prosternum very finely, feebly carinate throughout..... 2
- Labrum broadly sinuato-emarginate at apex, the emargination having two short obtuse and more widely separated teeth; second palpal joint very much shorter than the third; anterior tarsi not at all dilated, having long coarse hairs beneath; prosternum finely, unevenly and feebly carinate..... 3
- Labrum quadridentate at apex and generally broadly subtruncate and triemarginate..... 4
- 2 — Head rounded to subtruncate at base, the body rather slender; legs and tarsi slender; sculpture more or less coarse. Palaearctic and Nearctic regions..... *Stiliculus*
- Head broadly sinuate at base, the body very stout; legs and tarsi thick; sculpture very fine and dense. Nearctic regions..... *Pachystiliculus*
- 3 — Body very stout with the head orbicular; third maxillary palpal joint unusually small, subcylindric and bent; sculpture fine and dense, the vestiture very short and stiff; femora and tibiae rather thick, the hind tarsi slender and almost as long as the tibiae. Myrmecophilous. Nearctic regions..... *Megastiliculus*
- 4 — Outer pair of labral teeth as large and conspicuous as the inner; second palpal joint much shorter than the third; anterior tarsi slightly dilated and more densely pubescent beneath; legs slender; sculpture coarse as in *Stiliculus*. Palaearctic regions..... **Stilicosoma*
- Outer pair of labral teeth very minute; anterior tarsi not dilated and usually not densely clothed beneath; sculpture of the integuments always very fine and dense..... 5
- 5 — Prosternum strongly carinate throughout its length..... 6
- Prosternum not at all carinate except posteriorly near the coxae..... 7
- 6 — Inner pair of labral teeth short and broad, widely separated, each tooth deeply bifid and forming two acute denticles; labrum not at all produced in the middle but broadly subtruncate; head rounded at base, the eyes moderate or rather small; second palpal joint but little shorter than the third, moderately elongate; gular sutures as usual; prothorax oblong-parallel, the angles distinct. Nearctic regions..... *Stilicolina*
- Inner pair of labral teeth strong, the labrum elongated in the middle; maxillary palpi very long; mandibles broad; prosternum elongate, the prothorax without the lateral angles of *Stiliculus*. Tropical America.
- *Eustiliculus*
- 7 — Labrum broadly truncate and deeply trisinuate, the median teeth long, simple and aciculate; mandibles broad and strong; maxillary palpi long, the second joint slightly shorter than the third; gular sutures meeting behind the middle; head subtruncate at base, the eyes very small; prothorax obtrapezoidal, the anterior angles rounded; legs long, the femora somewhat stout. Sonoran region..... *Omostiliculus*

The characters of the Mexican and Central American *Eustiliculus* Shp., are taken from the "Biologia;" at first it

seemed as though the genus named *Omostilicus* in the table might be identical, but the statements concerning the absence of thoracic angles and carination of the prosternum evidently render highly improbable any close affiliation of the two genera. The presence of two minute external labral denticles in *Eustilicus* is assumed, as no mention of them is made by Dr. Sharp. It is rather singular that the completely different labrum of *Stilicus rufipes* Germ., taken in connection with its very pronounced divergence in general habitus, should not have been more fully dwelt upon by European authors. The differences are of full generic significance and the name *Stilicosoma* (n. gen.) is suggested for it as above.

Stilicus Latr.

The American species of this genus are all much smaller than the European and have far simpler secondary male sexual characters, but appear to be truly congeneric. They occur throughout the United States from the Atlantic to the Pacific and are generally rather abundant individually. There are usually several species possessing secondary male sexual characters of the same type, though variously modified, and they might be classified in this manner, but, owing to the fact that a very few distinct forms are at present represented by the female alone, I prefer to attempt an arrangement based upon general characters, presumably common to the sexes, as follows:—

- Under surface of the head densely punctured..... 2
 Under surface of the head sparsely punctured..... 6
 2—Sculpture finer, the punctures dense even on the elytra. Form rather broad and subdepressed, rufo-piceous in color, the abdomen blackish, the elytra dusky with the external angles broadly pale, the legs and antennae rufo-testaceous; head well developed, subquadrate, truncate at base with broadly rounded angles, the sides parallel; eyes large, broadly convex, at about one-half more than their own length from the base; antennae rather slender, feebly incrassate, scarcely a third longer than the head; surface confluent punctate above, the punctures shallower and polygonally crowded beneath; prothorax rather broad, slightly longer than wide, nearly three-fourths as wide as the head, obtusely angulate at the sides at apical third, the angles well rounded,

the sides feebly converging and broadly rounded thence to the base and rapidly so and subsinuate thence to the narrow apex, the punctures similar to those of the head but less confluent; elytra quadrate, parallel, a third wider and one-fourth longer than the prothorax, equal in width to the head, closely and asperately punctate; abdomen parallel with very feebly arcuate sides, distinctly narrower than the elytra, minutely, closely punctate; hind tarsi rather shorter than usual. Male with a broadly rounded abrupt emargination occupying median third of the apex of the fifth ventral, from the bottom of which projects a narrow slender aciculate process extending beyond the limits of the sides of the emargination; sixth segment with a triangular notch having straight sides and acute apex, somewhat deeper than wide and about one-third as wide as the segment; segmental surfaces unimpressed. Length 3.9 mm.; width 0.78 mm. District of Columbia.

opaculus Lec.

- Sculpture coarse, the elytra always more or less sparsely punctate..... 3
 3—Head broadly subtruncate at base, the eyes very large, the antennae short and thicker; pronotum with a smooth median line; elytra large, wider than the head; punctures of the head very dense but not coalescent; body less elongate..... 4
 Head rounded or subangulate at base, more elongate, the eyes moderate in size, the antennae longer and more slender; pronotum without a smooth median line; elytra smaller, never wider than the head; punctures of the head longitudinally confluent..... 5
 4—Body stout, parallel, moderately convex, deep black in color throughout except the elytral apex, which is pale flavo-testaceous and similar in color to the femora and tarsi, the knees and tibiae piceous, the antennae dusky testaceous; lustre dull, the elytra and broad median line of the pronotum polished; head as wide as long, coarsely and very densely punctate above and beneath, the eyes very large, broadly convex and not very prominent, almost continuing the outline of the tempora behind them and situated at about two-thirds of their own length from the base; tempora evenly rounded from the eyes to the neck, the base broadly, very feebly arcuate or subtruncate; prothorax slightly elongate, two-thirds as wide as the head, punctured like the latter except along the impunctate median line, broadly angulate at apical third, the sides thence just visibly converging and straight to basal fourth, then more convergent and subsinuate to the broad base, strongly converging and broadly subsinuate anteriorly to the narrow neck; elytra large, parallel, scarcely as long as wide, three-fifths wider and one-third longer than the prothorax, convex, strongly impressed throughout at each side of the suture, the punctures fine, sparse and scarcely at all asperate; abdomen parallel, narrower than the elytra but subequal in width to the head, the sides feebly arcuate, minutely, closely punctate; legs slender. Male unknown. Length 4.3 mm.; width 0.95 mm. Oregon (Albany).—Mr. Wickham.....*oregonus* n. sp.
 Body similar in form, coloration and sculpture to the preceding but smaller in size, with the eyes more convex and prominent, the tempora behind them less converging to the broadly rounded basal angles, the feebly converging straight sides of the prothorax behind the obtuse anterior

angles shorter, extending only to basal third, the elytra relatively smaller and only just visibly wider than the head, about as long as wide, the abdomen wider, being, at the middle, very nearly as wide as the elytra. Male with the fifth ventral broadly and slightly flattened toward the middle, the apex truncate, with a very shallow simple and and broadly rounded sinus in fully median third; broad tip of the sixth segment with a simple semicircularly rounded sinus in about median fourth and about three times as wide as deep. Length 3.9 mm.; width 0.88 mm. New York (Long Island) to Virginia...*latiusculus* Csy.

- 5 — Prothorax evidently shorter than the elytra. Body blackish-piceous in color, except the prothorax which is dusky rufous, the elytral apices and legs throughout pale flavo-testaceous, the antennae dark rufo-testaceous; punctures of the head and pronotum coarse and longitudinally confluent, of the under surface of the former equally coarse and very close-set but not distinctly confluent, of the elytra finer but strong and rather sparse, of the abdomen very fine and notably sparse, the last two surfaces polished; head longer than wide, the convex eyes at nearly twice their own length from the base, the sides behind them rapidly converging and broadly arcuate to the narrow neck; labral teeth unusually long and acute; prothorax much longer than wide, two-thirds as wide as the head, broadly rounded and very obsoletely subangulate at two-fifths from the apex, the sides thence feebly converging and nearly straight to basal fifth, thence strongly converging to the base, strongly converging and straight anteriorly to the narrow neck; elytra quadrate, parallel, one-half wider than the prothorax and about a fifth longer, just visibly narrower than the head; abdomen parallel, very feebly arcuate at the sides, as wide as the elytra; legs slender. Male with the fifth ventral unmodified on the disk, the apex rectilinearly truncate, with a very small, broadly triangular median process, wider than long and obtusely angulate, the process slightly tumid on the surface, the sixth segment with a broad, shallow and broadly rounded apical sinus, nearly five times as wide as deep. Length 4.3 mm.; width 0.75 mm. New York, Pennsylvania and District of Columbia.

rudis Lec.

Prothorax equal in length to the elytra. Body stouter but otherwise nearly similar, pale rufo-testaceous in color, the abdomen broadly clouded with piceous, the elytra more flavate, with the apex more broadly and conspicuously pale and nearly luteous-white, the legs very pale honey-yellow throughout; head nearly as in *rudis* but broader and less evenly rounded at base, the latter being broadly and obtusely subangulate; prothorax broader and more oval, the anterior angles, just behind apical third, much more broadly rounded and subobsolete; elytra larger, subquadrate, only very slightly narrower than the head, two-fifths wider and scarcely longer than the prothorax, strongly shining and somewhat more sparsely punctured than in *rudis*; tarsi rather more elongate. Male unknown. Length 4.3 mm.; width 0.8 mm. Rhode Island (Boston Neck).....*apicalis* n. sp.

- 6 — Head broadly rounded or subtruncate at base.....7
Head strongly rounded or subangulate at base, generally ogival in form behind the eyes10

- 7 — Elytra large, much wider than the head.....8
Elytra small, always distinctly narrower than the head.....9

- 8 — Stout in form, convex, shining, obscure rufo-piceous in color, the elytra subpiceous with pale apex, the abdomen blackish, the legs throughout pale lateo-flavate; head fully as wide as long, rather coarsely punctate, the punctures shallow, not coalescent but polygonally crowded, each with a crater-like centre bearing a small hair, strong but sparse on the under surface; eyes large, at scarcely their own length from the base, the sides behind them rounded in circular arc to the feebly rounded and broadly subtruncate base; labrum large, the teeth small; antennae rather thick; prothorax unusually large, but little longer than wide, nearly three-fourths as wide as the head, the obtuse angles at apical third distinctly rounded, the punctures rather coarse but not very dense, the surface shining, the broad polished impunctate median line not at all canaliculate; elytra quadrate, more than one-half wider than the prothorax and two-fifths longer, finely, subasperately and sparsely punctate; abdomen narrower than the elytra, minutely, subasperately and rather closely punctate; legs only moderately long and slender. Male with the fifth ventral broadly and feebly flattened toward the middle, the apex rectilinearly truncate and unmodified, the sixth segment with a large rounded sinus much wider than deep. Length 3.9 mm.; width 0.8 mm. Rhode Island, Virginia, Lake Superior and Texas (Austin).

angularis Er.

Form and size the same as in *angularis*; color more nearly piceous; head above rather finely and densely punctate, not rugose; below rufo-piceous, polished, somewhat sparsely punctate; sides behind the eyes slightly convergent, the hind angles rounded; base truncate; prothorax densely punctate, with a narrow, smooth and slightly elevated median line; elytra more finely and sparsely punctate, the tips narrowly pale; abdomen very finely, moderately densely punctured. Male with the fifth ventral toothed at the middle of the hind margin, the sixth triangularly emarginate. Length 4.0 mm. California (Los Angeles and Kern Cos.).

occiduus Fall

- 9 — Moderately slender, subparallel, piceous-black, the elytra scarcely at all paler at tip, the abdomen black, the legs throughout pale luteo-flavate, the antennae dusky testaceous; surface somewhat shining, the punctures of the head and prothorax moderately coarse and densely subconfluent, of the elytra finer, subasperate and rather close-set, of the abdomen very fine, subasperate and moderately dense; head large, fully as wide as long, the eyes very large, convex and prominent, at notably less than their own length from the base, the sides behind them rapidly converging and broadly arcuate to the feebly arcuate base; prothorax much elongated, only three-fifths as wide as the head, of the usual form, the polished median line rather narrow but scarcely at all concave; elytra relatively very small, notably shorter than the prothorax and not much more than a fourth wider, quadrate, the sides very feebly diverging from the base, the surface unusually depressed or flattened; abdomen at base fully as wide as the elytra, wider at the middle, the sides parallel and feebly arcuate as usual; legs long. Male with the apex of the fifth ventral rectilinearly truncate and un-

- modified, the surface with two small tumescent processes very near the apex, separated by about twice their own width, the sixth segment with a large simple rounded sinus, nearly three times as wide as deep. Length 3.7 mm.; width 0.7 mm. Massachusetts.....*biarmatus* Lec.
- Nearly similar throughout to the preceding but a little larger, the prothorax relatively smaller and less elongate, two-thirds as wide as the head, with the polished median line still narrower and distinctly concave; elytra larger, quadrate, a third wider and obviously longer than the prothorax. Male with the apex of the fifth ventral retilinearly truncate and unmodified, the surface with two tumescent processes as in *biarmatus*, but having these processes very much smaller and separated by fully three times their own width, the sixth segment with a large and nearly similar sinus at tip. Length 3.9 mm.; width 0.75 mm. Lake Superior (Bay-field), — Mr. Wickham — and Iowa.....*lacustrinus* n. sp.
- Somewhat similar to the two preceding in general form, piceous, the prothorax dusky rufous, the abdomen black; head more evenly and semi-circularly rounded throughout from eye to eye, the confluent punctures somewhat coarser than in *biarmatus*; prothorax narrower and relatively more elongate, the angles very obtuse and rather more rounded, the punctures dense and confluent, the median impunctate line much wider and wholly unimpressed; elytra and more convex and more finely and sparsely punctate, a little shorter than wide, with pale apex, rather shorter than the prothorax and two-fifths wider, less obviously narrower than the head than in *biarmatus*; abdomen at base slightly narrower than the elytra, at about the middle as wide as the latter, less densely punctulate and more polished. Male having the apex of the fifth ventral retilinearly truncate, with a very small feeble arcuate lobe at the middle, the surface with two transverse and very feeble, densely and coarsely setulose tumidities very near and parallel to the hind margin, mutually separated by a very narrow space scarcely half as wide as either, the sixth segment with a very large simple parabolic sinus at tip. Length 3.7 mm.; width 0.7 mm. New York (near the city).
abbreviellus n. sp.
- 10 — Median smooth line of the pronotum narrow, the polished elytra sub-metallic in lustre. Rather stout, convex, dark piceous in color, the abdomen black, the elytral apex narrowly pale, more broadly toward the sides, the legs pale luteo-flavate throughout, the antennae dark rufous; surface dull, somewhat coarsely, densely and confluent punctate anteriorly, the elytra and abdomen sparsely, finely punctate and polished; head relatively small, rather longer than wide, the eyes large, convex and prominent, at about their own length from the base measured longitudinally, the contour behind them ogival; antennae moderately long and slender, distinctly incrassate distally; prothorax slightly elongate, fully three-fifths as wide as the head, the sides obtusely but very distinctly angulate at two-fifths from the apex, thence very feebly converging and straight to basal fifth, then strongly converging and sinuate to the base; elytra large, quadrate, parallel, broadly convex, distinctly wider than the head, three-fourths wider and nearly a third longer than the prothorax; abdomen at base distinctly narrower than the elytra, the third and fourth segments generally subequal in

- width to the latter; legs rather long and slender. Male with the fifth segment rectilinearly truncate at tip, with a gradually formed short and acute median lobe in the form of a cusp, occupying about median eighth or ninth of the width, the sixth segment with a simple rounded sinus occupying about half the apex and fully four times as wide as deep. Length 3.8 mm.; width 0.82 mm. New York, Virginia, Iowa, Missouri and Texas (Austin).....*dentatus* Say
- Median smooth line broader and more conspicuous; abdomen very sparsely punctulate and polished; elytra finely and sparsely punctate and strongly shining but never metallic in lustre; punctures of the head and pronotum rather coarse and strongly, longitudinally confluent.....11
- 11 — Elytra large, slightly wider than the head.....12
- Elytra small, evidently narrower than the head.....13
- 12 — Form moderately stout, blackish-piceous in color, the elytral apex and legs throughout pale luteo-flavate, the antennae pale rufous; head somewhat longer than wide, rather broadly ogival behind the eyes, the latter convex and prominent, at their own length from the base measured longitudinally; antennae rather thick, distinctly incrassate distally; prothorax nearly as in *dentatus*, two-thirds as wide as the head; elytra scarcely as long as wide, slightly wider than the head, parallel, two-thirds wider than the prothorax and a third longer; abdomen at base obviously narrower than the elytra, the third and fourth segments as wide as the head; legs only moderately long and slender. Male with the apex of the fifth ventral broadly, feebly sinuate in median third, with a broad and obtusely angulate tooth gradually formed at the bottom of the sinus, the surface of the process slightly tumid and polished; sixth segment broadly, cylindrically impressed along the middle, with an apical sinus nearly a third as wide as the segment and about twice as wide as deep, subtriangular in form but with the angle distinctly rounded. Length 3.75 mm.; width 0.78 mm. Rhode Island (Boston Neck).....*luculentus* n. sp.
- Form and size nearly similar to *luculentus* but deep black throughout, the elytra and abdomen highly polished, very finely, sparsely punctured, the former without paler apex except very faintly toward the external angles, the femora and tarsi pale honey-yellow, the former toward tip and the entire tibiae picescent, the antennae dusky; head nearly similar but more broadly and obtusely ogival at base, the eyes larger and at less than their own length from the base; antennae more slender and less incrassate; prothorax nearly similar; elytra quadrate, parallel, fully as long as wide, only just visibly wider than the head, three-fourths wider and two-fifths longer than the prothorax; abdomen nearly as in the preceding, the legs rather longer and more slender. Male unknown. Length 3.6 mm.; width 0.75 mm. Mississippi (Vicksburg).
nigrolucens n. sp.
- 13 — Form somewhat similar to the two preceding, smaller in size, black in color throughout, the elytra and abdomen highly polished and sparsely punctulate, the former pale only at the external apical angles, the legs as in *nigrolucens*, the antennae moderately slender, distinctly incrassate and somewhat paler rufous; head rather acutely ogival behind the eyes, which are very large, convex and prominent and at scarcely their own

length from the base; prothorax relatively larger, but otherwise similar in form; elytra subquadrate, rather shorter than wide, parallel, distinctly narrower than the head, not distinctly longer than the prothorax and only about two-fifths wider; abdomen near the middle fully as wide as the elytra. Male with sexual characters somewhat resembling those of *luculentus*, the broad sinuosity of the fifth ventral still more shallow, with the process at its middle point almost obsolete, being reduced to a very small, short and broadly rounded lobe; sixth segment more broadly impressed along the middle, with the apical sinus scarcely twice as wide as deep and very broadly parabolic in form, being much less narrowly rounded at the bottom. Length 3.5 mm.; width 0.7 mm. Rhode Island (Boston Neck).....*minusculus* n. sp.

The species named *minusculus* above seems to differ from any other in having the elytra obliquely and obscurely uni- or bi-costulate on the disk. The characters of *occidurus* are those given by Mr. Fall in the original description (Occas. Papers, Cal. Acad., viii). The species of the table constituting distinct types are *opaculus*, *latiusculus*, *rudis*, *biarmatus*, *dentatus* and *angularis*; the form named *abbreviellus*, although a well defined species, evidently belongs to the *biarmatus* section and the last three species of the table are distinct modifications of the *dentatus* type. The *rudis* type is distinguished by its much smaller eyes, these being of about the same size as in the European *Stiliculus capitalis*. The Japanese species of the *rufescens* type, resemble *opaculus* and are distinguished from the others by an obviously less coarse and denser sculpture, subquadrate head truncate at base and by the presence of a few irregular longitudinal series of coarser punctures on the elytra, a character not observable elsewhere.

Pachystillicus n. gen.

The species of this genus are few in number but distributed over the entire nearctic province from the Atlantic to the Pacific. They are closely allied to *Stiliculus* but differ in the very short and broad form, finer punctuation and much shorter and thickened legs; these characters, in addition to the large quadrate head, deeply sinuate at base, give them a distinctly different facies. The evidence at present accessible to me seems to indicate two species as follows:—

Color blackish-piceous, pruinose with very fine pubescence; head quadrate behind the eyes, the hind angles rounded, the base "emarginate," densely punctate and dull above, the under surface densely and rugosely punctured; prosternum very feebly carinate; prothorax small, hexagonal, the base one-half wider than the apex, the sides obtusely rounded, broadly subangulate before the middle, the punctures fine and close-set but with the surface rather shining, the punctures smaller than those of the head, the median impunctate line distinct, moderately wide and not elevated; elytra strongly transverse, not longer than the prothorax, as wide as the head, finely, moderately densely punctate, the punctures distinctly separated; abdomen finely, densely punctate. Male with the fifth ventral not modified, the sixth with a small rounded median sinus at apex, the surface not modified. Length 4.7 mm.; width 1.0 mm. California.....*quadriceps* Lec.

Color dull rufo-testaceous, the legs and antennae concolorous, the head and abdomen above black, dusky beneath; body nearly similar to the preceding but with the prothorax slightly larger, not quite as long as wide, with the base very nearly twice as wide as the apex and the median impunctate line very narrow; elytra less transverse but much shorter than wide, somewhat longer than the prothorax and fully two-fifths wider, as wide as the head; abdomen short, at base fully as wide as the elytra, the sides parallel and arcuate, the third and fourth segments materially wider than the elytra or head. Male somewhat smaller and less stout than the female, the fifth ventral very feebly sinuate in about median third at apex, the adjoining surface feebly flattened, less punctured and glabrous; sixth segment not distinctly visible in specimens at hand but apparently with the sinus larger and shallower than in *quadriceps*. Length 3.5 mm.; width 1.1–1.2 mm. Manitoba (Winnipeg).....*hanhami* Wickh.

The characters of *quadriceps*, given above, are derived from the original description and from some pencil notes taken by the writer from the original type some years ago. The forms from Missouri and Massachusetts, said by Dr. LeConte to be identical, are unknown to me at present. Of *hanhami* Wickham, I have three specimens.

Megastillicus Csy.

This remarkable myrmecophilous genus is founded upon a large species, of very stout form, with unusually small orbicular head, densely opaque integuments of the head and prothorax and with sparse vestiture consisting of short suberect stiff bristles, which characters give it a facies wholly without parallel in the subtribe. It may be described as follows:—

Form moderately convex, the hind body very broad, brownish-rufous throughout, the legs and antennae concolorous, the head and abdomen blackish; surface of the head above and beneath and of the pronotum impunctate but densely and very strongly micro-reticulate, the stiff short setae moderately close-set, of the elytra and abdomen rather more shining, the former less strongly reticulate, somewhat rugulose but not distinctly punctate, the setae very thick and moderately close-set, the latter rather densely clothed with very fine short and decumbent hairs of the usual type; head rather longer than wide, the base feebly lobed in the middle, the eyes small, not prominent, at fully three times their length from the base measured longitudinally; antennae short, moderately thick, about as long as the head, feebly incrassate, the joints rather closely united; prothorax slightly longer than wide, three-fourths as wide as the head, strongly rounded laterally at apical third, the sides thence moderately converging and nearly straight to the base and more strongly converging to the apex, the latter about half as wide as the base; surface with a narrow and less opaque median line; elytra one-fifth wider than long, nearly one-half wider than the head, three-fourths to four-fifths wider than the prothorax and fully a third longer, the sides feebly diverging from the base and broadly, feebly arcuate; abdomen short and broad, less than one-half longer than the elytra, at base fully as wide as the latter, and, at the middle, a little wider. Male with the fifth ventral unmodified, the sixth with a very large simple parabolic sinus, about half as wide as the segment and between two and three times as wide as deep. Length 5.0 mm.; width 1.45 mm. Massachusetts (Dracut).—Mr. Blanchard. *formicarius* Csy.

Although the body has a very stout form, nearly as in *Pachystilicus*, it probably has little or no phylogenetic relationship with that genus, as the head, labrum, palpi, sculpture and vestiture are of wholly different types. There is but little difference between the male and female, the former having the head and prothorax very slightly narrower when compared with the hind body.

Stilicolina n. gen.

In the peculiar opaque surface and very fine subgranuliform punctuation, this genus resembles *Omostilicus* and the remarkably fine and obsolete sculpture of *Eustilicus*, mentioned by Sharp, is probably similar. This type of sculpture is wholly dissimilar from that prevailing in *Stilicus*. In the very sharply elevated and entire prosternal carina and structure of the labrum, *Stilicolina* is wholly different from *Omostilicus*. We

know at present but one species which may be described as follows from the male:—

Elongate, rather slender, parallel, only moderately convex, dark red-brown in color throughout the body and antennae, the legs slightly paler; lustre dull, the elytra feebly shining; head rather longer than wide, the posterior half almost evenly semicircular in form, the eyes rather small, only slightly prominent and at about three times their length from the base measured longitudinally; antennae scarcely one-half longer than the head, somewhat thick, distinctly incrassate distally; punctures feebly granuliform and close-set above, obsolete and very sparse on the flat under surface; prothorax very densely punctured like the head but rather more finely and strongly, the median impunctate line very fine and scarcely entire, scarcely visibly longer than wide, three-fourths as wide as the head, oblong in form, the sides obtusely angulate and rounded at apical fourth, thence just visibly converging and straight to the broadly rounded basal angles and rapidly converging and feebly sinuate anteriorly to the narrow neck, which is less than half as wide as the broad truncate basal margin; elytra quadrate, parallel, fully as long as wide, rather wider than the head and about a third wider and longer than the prothorax, the punctures strongly and granularly asperate but less dense than those of the prothorax; abdomen parallel with the sides feebly arcuate, distinctly narrower than the elytra, very minutely, densely, subasperately punctulate. Male with the fifth ventral almost completely unmodified, the sixth with a very large and deep emargination, two-fifths as wide as the segment and somewhat wider than deep, the notch transversely and feebly rounded at the bottom, with its sides becoming almost parallel posteriorly. Length 5.7 mm.; width 0.95 mm. District of Columbia.....*tristis* Melsh.

This species does not seem to be at all abundant and most of the known examples were taken by Mr. Ulke.

Omostilicus n. gen.

This genus is also represented at present by a single species, the largest of the subtribe known to me. It departs strikingly from *Stilicolina* in its much larger head, very small eyes, form of the gular sutures, for the greater part non-carinate prosternum and structure of the labrum, but resembles it very much in sculpture, coloration and sexual characters. In both these genera the anterior tarsi are virtually undilated, even in the male, and are clothed beneath more or less sparsely with short stiff brown hairs, contrasting greatly with the dense

white spongy-pubescent sole in *Stilicus*. The generic type may be described as follows: —

Moderately stout and convex, subparallel, evenly dark red-brown in color throughout, the integuments densely dull in lustre, the abdomen alone slightly shining; punctures of the head very finely, densely and obsoletely granuliform above, obsolete and sparse on the under surface which is simply densely micro-reticulate, of the pronotum finer, still denser and stronger, of the elytra coarser, dense and rugose, of the abdomen minute, asperulate and very close-set; head large, subpyriform, the sides parallel and broadly, evenly arcuate, merging gradually into the very broadly rounded basal angles, the base truncate in median half of the entire width; eyes very small, not at all convex or prominent, at fully four times their own length from the base; under surface notably convex, the sutures impressed; antennae rather long, moderately slender, not distinctly incrassate, twice as long as the prothorax, the basal joint much longer than the next two together; prothorax but slightly longer than wide, three-fifths as wide as the head, the sides obtusely angulate and rounded just behind apical fourth, thence rather strongly convergent and nearly straight to the broadly rounded basal angles and rapidly converging and nearly straight anteriorly to the neck, the apex about half as wide as the base, the disk without trace of smooth median line; elytra subquadrate, rather longer than wide, parallel and broadly arcuate at the sides, four-fifths as wide as the head, only one-fifth wider and about a fourth longer than the prothorax; abdomen parallel, broadly arcuate at the sides, slightly narrower than the elytra at base but as much wider than the latter at the middle of its length. Male with the fifth ventral virtually unmodified, the sixth with a large, circularly rounded sinus, occupying almost the entire apex and more than twice as wide as deep. Length 8.0 mm.; width 1.4 mm. Arizona.

sonorinus n. sp.

The description is drawn from the male throughout, this being the only sex known to me at present.

STILICOPSES.

This subtribe is, in some measure, intermediate between the Stilici and Sunii, having the free space between the corneous floor of the anterior acetabula and the side-pieces of the pronotum narrower than in the former, while in the Sunii these parts are connate. On the whole, the species bear a closer general resemblance to the Sunii than to the Stilici, however, and the reality of this affinity is further affirmed by the structure of the antennae and palpi, by the united

gular sutures, tarsal structure and general type of sculpture. The group is peculiar to the American continents and comprises the two following genera: —

Body small in size, shorter and rather stouter in form, the head having coarse shallow polygonally crowded punctures, forming a reticulation, the pronotum granularly punctate, the elytra and abdomen rugosely punctured, the former more coarsely; head broadly arcuate-truncate at base, the eyes moderate, prominent; labrum large, with short parallel sides at base, the apex broadly angulate, with the angle truncate; antennae rather short, slender, feebly incrassate distally; ligula apparently unmodified at apex; labial palpi very slender, the third joint very short, aciculate; maxillary palpi long and well developed, the second joint long, slender, with very short sparse stiff hairs, the third elongate-oval, shorter than the second and more gradually narrowed toward base, the apical cavity very small, the surface densely clothed with short fine decumbent hairs, the fourth joint very small, obtuse and apparently minutely pubescent; gular sutures forming a single cleft-like line; neck between a fourth and fifth as wide as the head; prothorax circular, the apex not prolonged at the middle; prosternum well developed before the coxae, minutely and feebly carinate throughout along the median line, having a small transverse gutter just behind the apical margin; elytra shorter than wide, with broadly rounded basal angles, the hind wings probably obsolete; abdomen short and broad with arcuate sides, the segments not impressed; legs somewhat slender, the tarsi short and rather thick, the anterior not at all dilated, the posterior with the first joint slightly less than half the entire length and more than twice as long as the second, the third extremely short, much wider than long, the fourth strongly lobed, including the lobe about as long as wide, the lobe truncate, the fifth short and very slender, extending only slightly beyond the apex of the lobe of the fourth joint; claws small, slender and feeble. Eastern North and Central America..... *Stilicopsis*

Body larger, more elongate and more convex, the upper surface throughout simply and only moderately coarsely punctate; antennae very slender and much elongated, only the last three joints gradually and feebly incrassate, the joints very slender, each swollen anteriorly toward apex; labrum very large with the basal part rounded at the sides, the middle three-fourths of the apex having the sides converging to the transversely truncate median part, which is nearly one-half the total width; eyes well developed, prominent; base more rounded; palpi and gular sutures nearly as in *Stilicopsis*; neck barely a fifth as wide as the head; prothorax elongate, rounded at the sides and gradually narrowed toward base, the apex narrowly prolonged in the middle to the neck, this lobe truncate at tip and narrower than the base; prosternum longer before the coxae, broadly constricted behind the apex, finely carinate along the middle throughout; legs slender, the tarsi nearly as in *Stilicopsis* but rather more slender and elongate, the basal joint relatively still longer, constituting half the entire length. North and Central American Atlantic coast..... *Stammoderus*

These genera differ greatly in the general facies of the body, in the antennae, sculpture and form of the prothorax but are closely related otherwise.

Stillicopsis Sachse.

The peculiar form of the prothorax, almost exactly circular in outline, short elytra with diverging sides and broad convex abdomen, will identify this remarkable genus at first glance. Our single species may be briefly described as follows:—

Form parallel, moderately convex, pale luteous in color throughout, slightly shining, subglabrous; head scarcely as long as wide, the eyes convex, prominent, coarsely faceted and at somewhat more than their own length from the base measured longitudinally, the sides circularly rounded behind them to the neck; antennae distinctly shorter than the head and prothorax, the latter feebly convex, densely granulose throughout, the surface impressed at the sides behind the middle, equal in width to the head; elytra transverse, not quite as long as the prothorax, at apex distinctly wider, coarsely, closely, rugosely punctate; abdomen at the middle wider than the elytra, finely, closely and rugosely punctate, shining. Male with the fifth ventral broadly, parabolically emarginate throughout its width, the sixth similarly emarginate but more strongly; cleft of the seventh broad, the ligula parallel, arcuato-truncate at tip; segmental surfaces not modified. Length 2.6 mm.; width 0.58 mm. North Carolina (Asheville) and Florida.

paradoxa Sachse

The median line of the pronotum is very finely elevated or cariniform. Other species occur in Mexico and the neotropical regions.

Stamnoderus Shp.

The species of this genus are at least three in number in our Atlantic states and may be readily distinguished from *Stillicopsis paradoxa* by the larger size and the peculiar form of the prothorax. The antennae are of unique structure, the singular swelling of the anterior side of the long and extremely slender joints toward tip being doubtless of a special sensorial nature. Individuals are not at all rare and the species represented by material before me may be distinguished by the following characters — drawn from the female in each case:—

Body black or piceous-black in color, the elytra and last two ventral segments pale; legs and antennae very pale throughout; abdomen broader 2

Body pale luteous in color throughout, somewhat smaller in size..... 3

2 — Form stouter, convex, shining throughout, the head and prothorax with impressed close-set and rather feeble but distinct punctures, the elytra more coarsely, deeply, rather closely, subrugosely and conspicuously punctate, the abdomen finely, closely punctulate; head as long as wide, abruptly narrowed before the eyes, the front parallel and rectilinear at the sides; eyes prominent, at their own length from the base, the sides behind them rapidly convergent and arcuate to the neck; antennae rather more than half as long as the body; prothorax longer than wide, distinctly narrower than the head, convex, the surface impressed at the sides behind the middle, the median line narrowly smooth and slightly elevated; elytra as long as the prothorax and a fourth or fifth wider, scarcely as long as wide, the sides subparallel and broadly arcuate, the base moderately oblique at the sides, with the angles obtusely rounded; abdomen parallel, feebly arcuate laterally, only slightly wider than the elytra. Length 3.8 mm.; width 0.68 mm. Virginia... *monstrosus* Lec.

Form more slender, similar in color, lustre and sculpture to *monstrosus* but deeper black and less piceous; head longer than wide, less narrowed before the eyes, the latter less prominent but of the same size, the sides more strongly converging and arcuate behind them to the neck; antennae half as long as the body; prothorax narrower and more elongate, only just visibly narrower than the head, otherwise nearly similar; elytra much narrower, smaller in size, fully as long as wide, barely as long as the prothorax and only about a sixth wider, the sides feebly diverging, feebly arcuate, the base very oblique at each side with more obtuse shoulder angles; abdomen relatively broader, parallel, arcuate at the sides, much wider than the elytra. Male with sexual characters nearly as in *Stillicopsis*, the fifth ventral feebly, subtriangularly emarginate throughout the width, the sixth also more strongly and parabolically emarginate throughout the width, the seventh with a broad slit, narrowing toward base, the ligula broad, flat and truncate; female with the sixth ventral very broad, obtusely rounded in circular arc at tip. Length 3.9 mm.; with 0.65 mm. North Carolina (Asheville).

carolinae n. sp.

3 — Body more parallel, shining, uniform and very pale in coloration throughout; head nearly as in *monstrosus* but more finely punctulate and similarly impressed at each side of the front before the eyes, the latter rather smaller but equally prominent, at more than their own length from the base; antennae more than half as long as the body; prothorax as in *carolinae*; elytra parallel, arcuate at the sides, barely as long as wide, nearly as in *monstrosus*, as long as the prothorax and much wider; abdomen much narrower, parallel and almost straight at the sides and not wider than the elytra. Length 3.5 mm.; width 0.6 mm. Florida.

pallidus n. sp.

The conformation of the elytra is such as to suggest that the hind wings may not be fully developed in this genus,

though they are probably less vestigial than in *Stilicopsis*. Like the latter genus *Stamnoderus* occurs also in Central America. *Monstrosus* was originally assigned to *Sunius*.

SUNII.

This group or subtribe consists for the most part of the single genus *Sunius*, one of the most widely distributed and characteristic Paederid genera of the palaearctic and nearctic regions of the world. There are a few other genera, especially some peculiar to the neotropical regions, but none other appears to enter the fauna of America. In some features, such as the structure of the tarsi, antennae and the general habitus of certain forms, it apparently makes a closer approach to the Pinophilini than any other type of the Paederini, but it can be stated quite positively that any such resemblances are merely superficial and fortuitous, for in the structure of the prosternum, palpi, form of the head above and beneath and many other characters these two types of Staphylinidae are so widely separated as to indicate little or no phylogenetic relationship. The three genera which happen to be represented by material in my cabinet may be described as follows:—

Labrum quadridentate, advanced and arcuate toward the middle, the teeth broad and very strong, the median very much longer and more advanced than the outer and each bearing a short stiff tactile seta laterally near its acute apex, the outer teeth acute and nude; prosternum transversely and broadly tumid, finely, longitudinally and rather feebly carinate, the carina not crossing the transverse concavity just behind the apical margin; hind tarsi almost as long as the tibiae, slender, the basal joint about half as long as the remainder taken together; head as in *Sunius*; eyes smooth, the facets not convex; sculpture throughout very coarsely but not densely, simply punctate. Europe.....**Nazeris*

Labrum bidentate; eyes not smooth, each of the individual facets convex.. 2
2 — Labrum very short, broadly truncate, having a small median emargination, at each side of which there is a short tooth in the form of a slender truncated cone, a very small stiff tactile seta projecting axially from its extremity, the edge just without each tooth broadly and arcuately lobed; prosternum thrown up in an acute transverse ridge at some distance from the apical margin and separated therefrom by a narrow deep concavity, the median line with a fine but acutely elevated, somewhat uneven carina, which crosses the anterior concavity and attains the apical

margin; hind tarsi rather elongate but distinctly shorter than the tibiae, the basal joint much elongated but shorter than the remainder; head more or less broadly arcuato-truncate at base; sculpture only moderately coarse, the head and pronotum strongly punctato-reticulate, the elytra and abdomen asperately punctate; body more or less slender. Europe, Asia and North America.....*Sunius*
Labrum advanced and prominent toward the middle, the teeth moderate in size, broadly triangular, each with a longer and very slender seta projecting from its apex, the teeth separated by a moderate emargination, the transverse bottom of which bears two very minute approximate denticles, each of which has a long slender tactile seta projecting from its apex; just without each of the principal teeth there is a small, angulate emargination of the edge; prosternum long, nearly flat, not transversely tumid but with a very small cariniform elevation paralleling and close to the apical margin, the median line from this carina to the coxae strongly carinate; posterior tarsi short, very much shorter than the tibiae, the basal joint much elongated and as long as the entire remainder; anterior tarsi of the male thicker though scarcely dilated, the sub-apical joints somewhat obliquely united, — suggesting *Pinophilus*; head prolonged and strongly rounded at base; sculpture of the head and pronotum consisting of large reticulations of somewhat feeble lines, of the elytra of distinct, rather coarse and sparse impressed punctures, the abdomen obsoletely and very finely, sparsely punctulate. Central America.....**Dibelonetes*

The diagnosis of *Nazeris* Fauv., has been taken from a female of *pallidipes* Reit., and that of *Dibelonetes* Sahl., from the male of a form which appears to constitute a variety of the Central American *fragilis* Shp., from San Marcos, Nicaragua.

I greatly regret not being able to study the genus *Ctenomastax* Kr., in order to determine its relationships, but this remark also applies to several other described genera.

Sunius Erichs.

Numerous species of this genus, frequently closely allied among themselves, occur throughout the continent and are everywhere plentiful in individuals. They have in common a very monotonous uniformity of habitus which, in connection with their small size, has caused them to be greatly neglected by systematists. The ornamental coloration of many forms is highly inconstant, especially so in the Texan *inconstans*, and, in *americanus* and some others, the abdomen,

which is generally of a dark testaceous with the last two segments black, may become wholly black, while in others, such as *discopunctatus*, the black color of the last two segments never shows any tendency to spread anteriorly. Although some are very variable, others, such as the *longiusculus* group, including the pale Sonoran species, appear to be quite constant in the limited ornamentation that they possess. The secondary sexual characters are very simple, consisting only of a small deep and acute cusp-like emargination of the sixth ventral and are but slightly diversified, rendering a satisfactory classification of the species very difficult; that suggested below is merely provisional and a much better one may be devised in the future. The twenty-one species in my cabinet may be known by the following characters:—

- Species of the Atlantic coast to eastern Texas and including the entire Mississippi Valley..... 2
 Species of the Sonoran province.....15
 Species of the true Pacific coast fauna, extending inland to the northward as far as the Rocky Mountains.....17
 2 — Head invariably black or piceous-black..... 3
 Head always pale in coloration.....14
 3 — Elytra pale, maculate with black, occasionally entirely black..... 4
 Elytra completely pale in color, never maculate.....13
 4 — Large species, not less than 4.4 mm. in length, the general color dark throughout..... 5
 Small species, not exceeding 3.7 mm. in length when the abdomen is not excessively extended..... 8
 5 — Elytra distinctly longer than the prothorax..... 6
 Elytra equal to or shorter than the prothorax..... 7
 6 — Parallel, feebly shining, black throughout, and legs and antennae pale, the elytra pale in apical fourth, the pale area increasing in length inwardly, occupying almost apical half on the suture and extending feebly along the latter to the base; sculpture of the head and pronotum rather coarse, dense and somewhat longitudinally confluent as usual; punctures of the elytra strong and rugose but distinctly separated, of the abdomen finer but strong, asperulate and arranged in the usual transversely wavy series; head large, slightly wider than the elytra, longer than wide, the eyes convex and prominent and at slightly more than their own length from the base; basal part behind them obtapezoidal, with the angles broadly rounded; prothorax oval, much longer than wide, widest and broadly rounded at the sides at apical third; elytra distinctly longer than wide, narrowed gradually toward tip, obviously wider and longer than the prothorax; abdomen at base as wide as the elytral apex, slightly wider posteriorly. Male distinctly more slender than the female, with the head and prothorax larger when compared

- with the elytra, the fifth ventral unmodified, the sixth with the acutely angulate incisure large, its opening about a third as wide as the segmental apex, its sides beaded and broadly arcuate posteriorly, its depth rather greater than the width. Length 4.6–5.0 mm.; width 0.65–0.7 mm. Virginia and Pennsylvania.....*prolixus* Er.
 Parallel in form, resembling the preceding but a little stouter, the pale color of the elytral apex extending less acutely anteriorly upon the suture, the eyes more convex and prominent, situated at obviously more than their own length from the base, the elytra broader and less elongate, distinctly wider but only slightly longer than the prothorax, as wide as the head; abdomen at base slightly narrower than the elytral apex, gradually wider posteriorly, the punctures finer and denser than in *prolixus*. Male with the acutely angulate incisure of the sixth ventral very small, deeper than wide, its opening occupying scarcely a fourth of the segmental apex, its sides broadly rounding posteriorly into the segmental apex. Length 5.0 mm.; width 0.65 mm. Texas (Austin).....*strigillis* n. sp.
 7 — Form moderately slender, parallel, feebly shining, dark fusco-testaceous in color, the head, a large elongate-oval cloud on each elytron and the last two abdominal segments black, the latter color occasionally involving the entire venter; legs and antennae very pale as usual; head large, much wider than the elytra, the eyes rather small especially in the female, situated at very much more than their own length from the base, the basal parts of the head as in *prolixus*; prothorax large, oval, elongate, distinctly narrower than the head; elytra notably small, elongate, gradually narrowed toward tip, equal in width and length to the prothorax; abdomen at base as wide as the elytral apex, becoming gradually distinctly wider posteriorly, the sides straight as usual; punctures of the elytra and abdomen rather coarser than in *prolixus*. Male slightly more slender than the female but proportioned nearly the same, the acute incisure of the sixth ventral smaller than in *prolixus*, with its sides less broadly rounding posteriorly and its opening width decidedly greater than the depth. Length 4.6–5.0 mm.; width 0.7 mm. New York to Virginia (Fort Monroe). [= *prolixus* (Var.) Er.].
americanus n. sp.
 Form narrower and more slender, parallel, dull in lustre throughout, black, the apical third of the elytra — becoming apical half on the suture — pale, the legs pale; head relatively rather small, scarcely as wide as the elytra, of the usual form, the eyes moderately convex and prominent and at more than their own length from the base, the sides behind them but feebly convergent, the angles less rounded than usual; prothorax scarcely visibly narrower than the head, but little longer than wide, otherwise of the usual form and sculpture; elytra scarcely longer than wide, very slightly wider than the prothorax and not quite as long; abdomen at base not quite as wide as the elytra and only slightly wider posteriorly. Length 4.4 mm.; width 0.58 mm. New York.....*linearis* Er.
 8 — Elytra subequal in length and width to the prothorax..... 9
 Elytra much wider and longer than the prothorax.....10
 9 — Body very slender, linear and parallel, densely sculptured throughout,

the punctures of the elytra relatively very coarse and rugose, those of the abdomen rather fine, black throughout, the prothorax sometimes obscurely rufescent, the elytra pale in apical fourth, the pale area not extending anteriorly along the suture except very slightly; head somewhat wider than the elytra; eyes convex, prominent, at about their own length from the base; prothorax but slightly elongate, very little narrower than the head, the sides rather strongly rounded behind apical fourth, thence unusually convergent and nearly straight to the broadly obtuse but distinct basal angles; elytra elongate, gradually narrowed toward tip, just visibly wider and only very slightly longer than the prothorax; abdomen gradually broader posteriorly. Male with the deep and acutely angulate incisure of the sixth ventral deeper than wide, moderate in size, with coarsely beaded sides and with the opening scarcely a third as wide as the segmental apex. Length 3.7 mm.; width 0.52 mm. Rhode Island (Boston Neck).....*spectrum* n. sp.

Body very slender and parallel, pale ochreo-testaceous in color, the head, a spot on each elytron somewhat variable in size but situated at the external margin behind the middle, and last two ventrals, black, in the last case extending anteriorly onto the fourth segment as a rule; head elongate, well developed, much wider than the elytra, the eyes moderately convex and at their own length from the base; prothorax much narrower than the head, slightly elongate, broadly rounded at the sides anteriorly and only moderately narrowed thence to the base; elytra elongate, but little narrowed posteriorly, just visibly wider and only slightly longer than the prothorax; abdomen slender, gradually broader behind. Male with the angulate notch of the sixth ventral moderate in size, more broadly triangular than usual, with the side margins widely beveled, the opening nearly one-half the segmental width and somewhat wider than the depth. Length 3.3-3.7 mm.; width 0.5 mm. Iowa.....*binotatus* Say

- 10 — Prothorax unusually small, much narrower than the head. Body moderately slender, black or piceous-black throughout, the elytra pale in apical two-fifths at the sides and half at the suture, the legs and antennae pale flavo-testaceous; head large and well developed, a little longer than wide, abruptly narrowed before the rather small but strongly convex eyes, this part only about four-fifths as wide as the part behind the eyes, the base broadly arcuato-truncate; prothorax very small, elongate, three-fourths as wide as the head, the sides broadly rounded anteriorly and thence unusually convergent to the base; elytra large, but little longer than wide, not evidently narrowed posteriorly, wider than the head, two-fifths wider and a third longer than the prothorax; abdomen much narrower than the elytra but wider than the prothorax, parallel, not distinctly wider posteriorly, rather coarsely asperate. Male with the notch of the sixth ventral rather large, much deeper than wide, somewhat parabolic in outline, the angle very narrowly rounded, the edges strongly beaded, the posterior angles slightly obtuse but scarcely rounded, the opening nearly a third as wide as the segmental apex. Length 3.3-3.7 mm.; width 0.65 mm. New York to Iowa.....*cinetus* Say
- Prothorax well developed, only slightly smaller than the head.....11

- 11 — Head large, nearly as wide as the elytra and not very much longer than wide. Body rather stout, parallel, pale ochreo-testaceous in color, the head, a large internally rounded spot on each elytron extending from basal fourth to apical sixth and from the side margin to inner third, and the last two abdominal segments, black, the legs and antennae very pale as usual; head of the usual form, but little narrower before than behind the eyes, the latter moderate in size and prominence; prothorax three-fourths to four-fifths as wide as the head, longer than wide, of the usual form, the sides rather strongly rounded at apical fourth, thence moderately converging and straight to the broadly rounded basal angles; elytra large, only slightly elongate, feebly narrowed at tip, a third wider and longer than the prothorax; abdomen rather wide, gradually broader behind. Male unknown. Length 3.5 mm.; width 0.6 mm. Iowa.....*simulans* n. sp.

Head smaller, much narrower and more elongate, distinctly narrower than the elytra.....12

- 12 — Form slender, rather shining, pale ochreo-testaceous, with the head, a large internally rounded spot on each elytron from basal fourth to apical eighth and from the side margin to inner fifth, and the last three abdominal segments, black, varying to completely black, with the elytral suture feebly and narrowly rufescent, the legs and antennae always pale honey-yellow throughout; eyes strongly convex and prominent, at their own length from the base; prothorax short though longer than wide, the sides strongly rounded at apical fourth, thence strongly converging and straight to the basal angles, the side margins bristling with several long stiff black setae; elytra distinctly elongate, feebly narrowed at tip, two-fifths wider and longer than the prothorax; abdomen at base slender, distinctly narrower than the tip of the elytra, gradually slightly wider behind. Male with the fifth ventral feebly flattened along the middle, the acute cusp-like incisure of the sixth large, as deep as wide, with its sides broadly rounding outward posteriorly, the edge only anteriorly and finely beaded, the opening fully half as wide as the segmental apex. Length 3.3-3.7 mm.; width 0.5-0.55 mm. Texas (Galveston).....*inconstans* n. sp.

Form slender, nearly as in the preceding, pale testaceous in color, the head, a larger but less elongate, internally rounded spot on each elytron, extending from basal third or two-fifths to apical eighth and from the side margin to inner fifth or sixth, and the last two abdominal segments, black; head relatively still narrower and more elongate, the eyes somewhat larger but less prominent and at rather more than their own length from the base, the sides behind them rather less converging to the broadly arcuato-truncate base; prothorax much more elongate, the sides at apical fourth more broadly rounded and thence only feebly converging to the basal angles, the side margins with only about two stiff setae, one anterior and the other near the base; elytra nearly similar but still more elongate, a third or fourth wider and longer than the prothorax; abdomen very slender, still more notably narrower at base than the apex of the elytra, gradually perceptibly wider behind. Male with the fifth ventral narrowly and feebly impressed along the median line, the notch of the sixth very wide, the widely diverging

arcuate sides extending almost throughout the width of the segmental apex, with the edge not beaded but broadly beveled, the apical angle not as acute as in the preceding and the opening width twice the depth. Length 3.7 mm.; width 0.53 mm. Mississippi (Vicksburg).

ornatellus n. sp.

- 13—Elytra small, subequal in length and width to the prothorax. Form very slender and linear, almost perfectly parallel, pale ochreo-testaceous in color, the head and the last two to three of the abdominal segments black; head of the usual form, distinctly longer than wide, well developed and distinctly wider than the elytra, the eyes moderate in size and prominence; prothorax relatively large, longer than wide, sensibly narrower than the head, the sides rather broadly rounded at apical third or fourth, thence strongly converging and nearly straight to the basal angles; elytra small, slightly elongate, only very slightly narrowed at apex, equal in width to the prothorax and only just visibly longer; abdomen rather broad, at base equal in width to the elytral apex, and, posteriorly, wider than any part of the elytra. Male with the fifth ventral narrowly and very feebly impressed along the middle, the notch of the sixth moderately large, its sides broadly flaring, arcuate and broadly beveled, its opening equaling half of the segmental width and its apical angle moderately acute. Length 3.0–3.7 mm.; width 0.5–0.52 mm. Iowa.....**brevipennis** Aust.

Elytra larger, much wider and longer than the prothorax. Form stouter, subparallel, pale ochreo-testaceous, the head and last two abdominal segments black or blackish; head smaller, not quite as wide as the elytra, the eyes much less convex and scarcely at all prominent, at barely their own length from the base, the converging sides short behind them, the angles broadly rounded; prothorax distinctly narrower than the head, only slightly elongate, the sides rather broadly rounded at apical fourth, thence but moderately converging and nearly straight to the broadly arcuate basal angles; elytra slightly elongate, sensibly narrowed near the apex, about a third wider and longer than the prothorax; abdomen unusually broad, slightly wider posteriorly but everywhere narrower than the elytra, rather finely, closely asperulate. Male unknown. Length 3.4 mm.; width 0.6 mm. Virginia (Norfolk).

fusciceps n. sp.

- 14—Form very slender, subparallel, pale ochreo-testaceous throughout, except the last two abdominal segments, which are black; head rather small, elongate, distinctly narrower than the elytra, the eyes convex, prominent and at distinctly more than their own length from the base, the sides behind them rather strongly converging to the moderately rounded basal angles; prothorax but slightly elongate, obviously narrower than the head, the sides rather broadly rounded somewhat behind apical fourth, thence moderately converging and nearly straight to the broadly rounded basal angles; elytra much elongated, distinctly and gradually narrowed toward tip, a third or fourth wider and two-fifths longer than the prothorax; abdomen moderately slender, at base slightly narrower than the elytral apex and but little wider near the tip. Male sensibly more slender than the female throughout the body and head, the fifth ventral unmodified, the sixth with a very acute cusp-

like notch, having broadly arcuate, moderately flaring and broadly beveled sides, the opening rather wider than the depth and nearly half as wide as the segmental apex. Length 3.9 mm.; width 0.53 mm. Rhode Island to Iowa, Nebraska and Texas. [= *centralis* Aust.].

discopunctatus Say

- 15—Body slender, parallel, black or piceous-black in color throughout, the legs and antennae pale; head elongate, nearly or quite as wide as the elytra, the eyes moderate in size and prominence, at fully their own length from the base, the sides behind them at first feebly converging, then broadly rounded into the more feeble arcuate base; prothorax oval, slightly longer than wide, visibly narrower than the head, the sides broadly rounded anteriorly, thence only just visibly convergent and very feebly arcuate to the broadly rounded basal angles. the sides with an erect seta anteriorly and posteriorly; elytra moderate in size, elongate, distinctly narrowed toward tip, a fourth or fifth wider and longer than the prothorax; abdomen moderately slender, but slightly wider posteriorly. Male unknown. Length (strongly extended) 4.7 mm.; width 0.6 mm. New Mexico (Albuquerque).....**zuni** n. sp.

Body slender, pale ochreo-testaceous in color throughout, the last two ventrals never more than very slightly darker in color and never black or blackish; head as wide as the elytra or extremely nearly so, of the usual form; eyes unusually large but only very moderately convex, at a little less than their own length from the base, the latter broadly subtruncate with the angles broadly rounded; prothorax rather small, very much narrower than the head, evenly ovoidal, broadly rounded anteriorly, the sides thence rather strongly converging and nearly straight to the subcircularly rounded base, the side margins with a single seta anteriorly and posteriorly; elytra two-fifths to one-half wider and longer than the prothorax; longer than wide, narrowed only very near the apex; abdomen slender, at base much narrower than the elytral apex, gradually perceptibly wider behind. Male with the fifth ventral unmodified, the sixth with a very acutely angulate notch, having nearly straight sides which flare into the apex through less than usually arcuate angles, the opening not more than a fourth as wide as the segmental apex and a little narrower than the depth. Length 4.2 mm.; width 0.55 mm. Arizona (Holbrook and Peach Springs) and New Mexico, — Mr. Wickham.....**arizonianus** n. sp.

Body pale ochreo-testaceous throughout, the abdomen with the last two segments black or blackish; prothorax broadly rounded at the sides anteriorly, the side margin generally with two strong tactile setae anteriorly and one near the base..... 16

- 16—Form very slender; head elongate, slightly narrower than the elytra, the eyes only moderate in size but strongly convex and prominent, at obviously more than their own length from the base, the basal part of the head behind them semicircularly rounded, with but slight traces of median truncature; prothorax much narrower than the head, elongate-oval, the sides moderately converging from the broadly rounded anterior part to the subcircular base; elytra slightly elongate, gradually and distinctly narrowed toward tip, two-fifths wider but scarcely a third longer than the prothorax; abdomen very slender, at base distinctly

narrower than the elytral apex and but just perceptibly dilated posteriorly. Male with the fifth ventral unmodified as usual, the very acute notch of the sixth cuspidiform, with its sides gradually more flaring posteriorly and broadly arcuate, the opening about half as wide as the segmental apex but scarcely as wide as the depth. Length 3.9 mm.; width 0.58 mm. California (Yuma) and Arizona (Tucson and Sta. Rita Mts.) *tenuiventris* n. sp.

Form nearly similar throughout to the preceding but obviously stouter in every part, the eyes similarly moderate in size but very convex and prominent, the basal part of the head behind them more broadly arcuate-truncate at base and not semicircularly rounded; prothorax less elongate but nearly similar in form; elytra slightly elongate, somewhat wider than the head but less obviously so than in *tenuiventris*, two-fifths wider and longer than the prothorax; abdomen moderately slender, at base slightly narrower than the elytral apex, distinctly dilated behind and very much more obviously so than in the preceding species. Male not at hand, the comparisons made from females exclusively. Length 4.1 mm.; width 0.65 mm. Texas (El Paso) and Arizona (locality not recorded) *similis* Aust.

17—Elytra much longer than the prothorax; abdomen never as wide as the elytra, moderately punctato-asperate, the notch of the sixth ventral in the male rather large, cuspidiform; body invariably slender, generally pale in color; antennae filiform, only very slightly thicker toward tip as usual 18

Elytra subequal in length to the prothorax, the body stouter, the abdomen generally black, coarsely punctato-asperate and much wider than the elytra; notch of the sixth ventral in the male very small, triangular; antennae strongly incrassate toward the tip 19

18—Abdomen broader, much wider than the prothorax. Parallel, dark rufo-testaceous in color throughout, the last two abdominal segments nubilously blackish; head elongate, of the usual form, equal in width to the elytra, the eyes moderate in size, very convex and prominent, at more than their own length from the base, the basal part broadly obtrapezoidal, with broadly rounded angles and arcuate-truncate base; prothorax rather small, longer than wide, much narrower than the head, the sides obtusely angulate and only slightly rounded anteriorly, thence rather feebly converging and nearly straight to the broadly subcircular base; margins with a black seta anteriorly and posteriorly; elytra longer than wide, parallel, only slightly narrowed at the immediate apex, fully a third wider and longer than the prothorax; abdomen at base much narrower than the elytra, gradually enlarged toward tip. Male with the fifth ventral unmodified, the acutely angulate notch of the sixth having gradually more widely diverging simple arcuate sides, the opening nearly three-fifths as wide as the segment and wider than the depth. Length 3.25 mm.; width 0.5 mm. Montana (western), — Mr. Wickham *sectator* n. sp.

Abdomen narrower, not distinctly wider than the prothorax even posteriorly. Parallel, dark brownish-testaceous in color throughout, the head generally slightly darker than the prothorax and elytra and the abdomen black toward tip; head moderately developed, perceptibly

elongate, slightly narrower than the elytra, the eyes at scarcely more than their own length from the base, convex and prominent; basal part behind them broadly obtrapezoidal, the angles well rounded as usual; prothorax small, much narrower than the head, slightly longer than wide, the sides rather narrowly rounded at apical third, thence distinctly converging and nearly straight to the rounded basal angles, the side margins with a tactile seta anteriorly and posteriorly; elytra large and much elongated, one-fourth longer than wide, with the sides broadly arcuate, gradually feebly converging toward tip, two-fifths to a half wider and three-fifths longer than the prothorax; abdomen at base not evidently wider than the prothorax, becoming somewhat dilated posteriorly. Male with the fifth ventral unmodified, the sixth with the very acute cusp-like notch as deep as wide, its sides gradually more widely flaring and broadly arcuate throughout, the opening a third as wide as the segmental apex. Length 3.65 mm.; width 0.6 mm. California (San Diego to Humboldt and Lake Tahoe), Nevada (Reno), Washington State (Spokane) and British Columbia (Victoria). [= *trigignatus* Boh.(?)] *longiusculus* Mann.

19—Head equal in width to the elytra, each elytron maculate with piceous. Body stout, parallel, black — or paler from immaturity, — the elytra alone pale flavo-testaceous, each with a small, posteriorly and inwardly oblique piceous cloud at its centre, the legs and antennae very pale as usual; head large, only very slightly longer than wide, the eyes rather small but convex and prominent, at about one-half more than their own length from the base, the sides behind them only very slightly converging, then broadly rounding into the broadly arcuate-truncate base; prothorax rather small, very much narrower than the head, longer than wide, the sides broadly rounded anteriorly, thence moderately converging and very slightly arcuate to the subcircularly rounded base, the side margins with the usual tactile seta anteriorly and posteriorly but small; elytra subquadrate, scarcely as long as wide, not narrowed at tip, the sides feebly diverging from the base and nearly straight, two-fifths wider than the prothorax and very slightly longer; abdomen broad, at base distinctly narrower than the elytral apex especially in the male, at the apex of the fifth segment just visibly wider than any part of the elytra. Male with the fifth ventral unmodified, the sixth broadly arcuate-truncate at apex, with a small and acutely angulate, abruptly formed median notch, visibly deeper than wide, with its sides straight and the posterior angles slightly obtuse but only very narrowly rounded, the opening rather less than a fifth as wide as the segmental apex. Length 3.6 mm.; width 0.7 mm. Nevada (Reno) and California (Lake Tahoe to Sta. Clara) *robustus* n. sp.

Head much wider than the elytra in both sexes, the elytra immaculate. Body moderately stout in form, black, the prothorax generally more or less piceous, the elytra brownish-testaceous, the legs and antennae pale; head large, slightly elongate, very much wider than the elytra, the eyes moderately large and prominent, at but little more than their own length from the base, otherwise nearly as in *robustus*; prothorax elongate-ovoid, very much narrower than the head, the sides very broadly rounded anteriorly, moderately converging and broadly arcuate

to the rounded base; elytra small, distinctly longer than wide, scarcely more than a fourth wider than the prothorax and very slightly longer, the sides subparallel, the basal angles unusually broadly rounded; abdomen broad, at base but little narrower than any part of the elytra, distinctly wider posteriorly. Male with the sixth ventral moderately broad, arcuato-truncate, the acutely triangular notch small, somewhat deeper than wide with its sides straight, its posterior angles obtuse and slightly rounded with the opening between a fourth and fifth as wide as the segmental apex. Length 3.3 mm.; width 0.6 mm. California (Sta. Cruz to Humboldt Co.).....**californicus** Aust.

The coloration of the head in mature individuals appears to be sufficiently constant to be utilized as a dichotomous character, for in those species represented before me by large series, such as *discopunctatus*, *longiusculus*, *cinctus*, *prolixus*, *inconstans* and others, I have found it to be unvarying, no specimen of *discopunctatus*, for example, ever has the head in the least dusky. The only doubt that need arise may be due to immaturity of the black-headed species, but, as the head and abdominal apex seem to be the first somites to mature, there will probably be but few cases of uncertainty even from this cause. The genus is abundantly represented in New England and the Atlantic regions generally and the forms run together rather closely, forming a difficult study. *Trisignatus* Boh., is probably the same as *longiusculus* Mann., as the latter occasionally has a large feeble internally rounded nubulosity on each elytron, which may sometimes become more distinct.

In considering the species of the table in accordance with their natural affinities, it should be stated that *prolixus*, *americanus*, *linearis*, *strigilis*, *spectrum*, and *zuni* form one group, *cinctus* a very distinct group by itself, as shown by general form and by the nature of the secondary sexual characters, *binotatus*, *ornatellus*, *inconstans* and *simulans* another for the same reason, *discopunctatus*, *fusciceps*, *brevipennis*, *arizonianus*, *tenuiventris*, *similis*, *sectator* and *longiusculus* another, and, finally, *robustus* and *californicus* form a remarkably isolated group, peculiar to the true Pacific coast fauna. *Discopunctatus* is very abundant everywhere east of the 100th meridian and represents in these regions the Pacific coast *longiusculus*, which has much larger elytra,

a darker general coloration and differs in several other characters. Coloration seems to be most constant in the *longiusculus* group and most unstable in the *binotatus* group. The beetles of this genus run with very great rapidity when disturbed, being relatively more agile in proportion to their size than any other Paederids known to me.

ECHIASTERES.

The genus *Echiaster*, and some others more or less closely allied, form a group peculiar to the American continents and greatly developed in the tropical regions of South America. The Echiasteres are related to the Sunii by the closed anterior coxal cavities, the corneous floor of which abuts closely against the flanks of the pronotum, in certain features of general habitus and sculpture, in the general structure and vestiture of the maxillary palpi and in the united gular sutures, but differ greatly in the very slender filiform tarsi with the fourth joint not lobed, in the extremely short and posteriorly flexile antennae, the apex of the very short basal joint being emarginate posteriorly, in certain structural peculiarities of the mentum and in several other directions. The sculpture is not very coarse but extremely dense, so that the lustre is densely dull, and the vestiture is in the form of very short, thick, closely recurved pale hairs, entirely inconspicuous except under considerable magnifying power. The two genera known thus far to enter our territories may be defined as follows:—

Fifth and sixth ventral segments prolonged, narrow and subtubulate; eyes very large and conspicuous, completely nude; body rather small and moderately slender, the head well developed, orbicular, the labrum short, broadly rounded at tip, with a small angulate median emargination and four equal small and broadly angulate teeth; antennae but little longer than the head, the funicle slender at base, rapidly incrassate distally; mentum small, transverse, the sides elevated, forming ridges which are prolonged before the apex as slender aciculate processes, each bearing a short axial apical seta; labial palpi small, slender, the maxillary well developed with the second joint moderately stout, arcuate, short and nude, the third oval, feebly compressed, finely and densely pubescent, more arcuate anteriorly than posteriorly and longer than the second, the fourth small, short, obliquely conical and pubescent, very inconspicuous; neck very slender, about a sixth as wide as the head; protho-

rax small, elongate, suboval; prosternum well developed before the coxae, evenly convex, not carinate; elytra parallel, well developed; abdomen at base as wide as the elytra, long, gradually tapering; legs very slender, rather short, the anterior tarsi not in the least dilated, the posterior very slender, filiform, two-thirds as long as the tibiae, the joints cylindric, closely united, the basal joint subequal in length to the next two together and rather longer than the fifth; claws small.

Warmer parts of North and South America.....**Echiaster**

Fifth ventral not much elongated, wider than long, the sixth small; eyes very small, minutely setulose; sculpture and lustre nearly as in *Echias-ter*; body very small in size, slender; head well developed, oblong, sinuato-truncate at base; labrum quadridenticulate, short, the median teeth longer than the outer; antennae extremely short, not as long as the head, nearly as in *Echiaster*; mentum small, transversely subquadrate, convex, the side margins bisetose, not distinctly elevated or produced, the anterior margin apparently finely denticulate at each side; labial palpi very small, slender, the maxillary moderately developed with the second joint arcuate, inflated distally, subglabrous, the third longer than the second, securiform with its anterior side strongly arcuate in the middle, the posterior nearly straight, the fourth joint extremely minute and abbreviated but slender and aciculate; neck relatively less slender, scarcely a fifth as wide as the head; prothorax small, with more pronounced angles than in *Echiaster*, the elytra nearly similar, the prosternum well developed before the coxae, carinate posteriorly; legs short and slender, the tarsi nearly as in *Echiaster*. Southern Atlantic and Gulf States.....**Leptogenius**

The above diagnosis of *Echiaster* is drawn from our only species, the very small *ludovicianus*, to be described below, and it is probable that other genera and subgenera are represented among the numerous Brazilian species.

Echiaster Erichs.

The principal characteristic features of this genus are the narrow, prolonged and frequently subtubuliform fifth and sixth ventral segments and the extremely large eyes, which are even more conspicuous or relatively larger than in some species of *Stenus*. The only representative within our boundaries may be described as follows:—

Form slender, moderately convex, densely dull in lustre, pale red-brown in color throughout, the prothorax usually rather paler than the rest of the body; head as wide as long, the eyes convex, prominent, at less than half their own length from the base and half as long as the entire head and labrum; sides behind them converging and strongly arcuate

for a short distance to the rather broadly arcuato-truncate base; prothorax less than three-fifths as wide as the head, distinctly elongate, the sides subangulately rounded at apical two-fifths, the base nearly twice as wide as the apex, the surface slightly elevated along the middle; elytra quadrate, parallel, as long as wide, equal in width to the head, slightly longer than the prothorax and very much wider, the surface rather depressed, somewhat coarsely, very densely, rugosely and granularly punctate, the suture not at all margined; abdomen at base as wide as the elytra, still more coarsely, closely and rugosely punctate, the last two segments becoming much more finely so and with the side margin greatly reduced, the segments not impressed at base. Male with the fifth ventral unmodified, the sixth with an abruptly formed, subparabolic emargination, deeper than wide, about a third as wide as the apex, with its bottom broadly rounded; ligula of the seventh white in color and submembranous, subcylindric, slender, with the apex slightly expanded and truncate; female having the sixth ventral obtusely and evenly rounded at tip. Length 2.8 mm.; width 0.5 mm. Mississippi (Vicksburg) and Louisiana (Bayou Sara).

ludovicianus n. sp.

The sexual characters are somewhat obscured in the only male at hand by a hardened exudation filling the emargination of the sixth ventral, so that I am not certain of the entire correctness of the description; the white submembranous ligula, however, is clearly defined and is radically different from anything else in the Paederini that I have observed.

Leptogenius Csy.

This genus is also represented by a single species thus far, readily distinguishable from the preceding by its still smaller size and more slender form, small eyes which are setulose and not nude, oblong, and not orbicular, basally sinuato-truncate head and normal terminal segments of the abdomen; it may be briefly described as follows:—

Body minute, slender, subparallel, only feebly convex, densely dull in lustre and closely, somewhat coarsely and rugosely punctulate, pale red-brown in color, the elytra generally darker except toward the sides and base; head well developed, longer than wide, parallel at the sides, the angles rounded, the eyes rather coarsely faceted and at between two and three times their own length from the base, slightly convex and prominent; antennae not quite as long as the head; prothorax small though fully three-fourths as wide as the head, about as long as wide, the sides subangulate and narrowly rounded at apical fourth, the base

rather more than twice as wide as the apex, the median line but very feebly prominent; elytra quadrate, parallel with the sides feebly arcuate, as long as wide, about a third wider and nearly a fourth longer than the prothorax, the elytra and abdomen sculptured as in *Echiaster*. Male with the sixth ventral broadly rounded at tip, truncate toward the middle, otherwise unmodified; female having the sixth ventral broadly rounded or subangulate at tip. Length 1.7 mm.; width 0.3 mm. Texas (Galveston) to North Carolina (Asheville).

brevicornis Csy.

The extreme simplicity of the male sexual characters, as described above, leads me to surmise that the specimens held to represent the male may really be a slightly modified female; more material will be necessary to decide this however. This species seems to have a very wide distribution, as no differences, even of a varietal nature, can be observed between the original Galveston types and the Asheville specimens before me. It is one of the smallest of known Paederids.

NOTES.

1—Bibliography is omitted in the present paper for various reasons, but references to the original descriptions, in the case of the older authors, can be obtained from the Munich catalogue, and, to those published between the date of that work and 1883, from the catalogue of Duvivier, issued by the Entomological Society of Belgium. But few species have been described since the latter date and the bibliographic references of these can be obtained very readily from the Zoological Record. There is one exception, however, which relates to the species of *Paederi* and *Sunii* described by Austin, to which I can find no bibliographic reference whatever, either in the Zoological Record or in the catalogue of Duvivier, and I am wholly uninformed as to their place of publication. The representatives of those species in my cabinet have been identified from the original types, which are in the cabinet of LeConte at Cambridge, Mass.

2—In the Henshaw list of 1885, one of Kirby's species is appended to the genus *Lathrobium* under the name *puncticolle*. I have not been able to consult the original description, but the name may imply some relationship with the genus *Lobrathium*, as a mere surmise.

ERRATA.

Page 69 — 6th line from top, for "nineteen" read twenty-six.

Page 146 — bottom line, for "horridual" read *horridula*.

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THE MOLLUSCAN FAUNA OF MCGREGOR, IOWA.*

FRANK COLLINS BAKER.

The 1904 Field Day of the Chicago Academy of Sciences was held at McGregor, Iowa, where several members of the Academy spent a profitable week during the month of July studying the Fauna, Flora and Geology of this interesting region. The ecology of the region is of more than usual interest. Here are high bluffs more than two hundred feet in height and several miles apart, between which flows the great Mississippi River, whose broad expanse of water, here almost a mile in width, rolls irresistibly on its journey to the Gulf. The river is dotted with islands covered with foliage and many of these islands have long sand or mud bars on the lower ends which afford an inviting refuge for many mollusks, particularly the Unionidae. Opposite South McGregor, which is the locality more particularly studied, there are several islands which have formed a perfect atoll, the narrow inlet and wider interior basin being faithfully represented. Such a station is especially adapted to the growth of mud-loving mollusks, such as Anodonta, Vivipara and some thin-shelled Lampsilis.

The geology of the neighborhood of South McGregor is notably interesting. The bluffs are made up of sandstone, limestone and shale, the strata belonging to the Ordovician Age and including the Lower Magnesian Limestone, St. Peter's Sandstone, Trenton Limestone, Galena Limestone and, farther inland, the Marquoketa shales.

Land shells seemed unaccountably scarce, the abundance of limestone and deciduous trees affording, apparently, desir-

* Presented by title to The Academy of Science, April 17, 1905.