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1908

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A REVISION OF THE TENEBRIONID SUBFAMILY CONIONTINÆ.

BY THOS. L. CASEY.

SUCH genera as *Eusattus*, *Coniontis*, *Cœlus*, *Branchus* and *Praocis* possess a peculiar and consistent habitus distinguishing them as a special group in a somewhat heterogeneous assemblage, brought together under the subfamily name Asidinæ by LeConte and Horn. The only characters considered to be of subfamily weight by the latter authors are those relating to the coriaceous posterior margin of the penultimate abdominal segments and the presence or absence of a trochantin, but there are assuredly some other important characters, the utilization of which would serve to segregate the multitude of genera forming the first subdivision of the family into more homogeneous groups, that, in several cases, might be regarded as subfamilies without doing any great violence to precedent in other parts of the Coleopterous series. I have in mind more especially the size of the mentum and certain characters relating to the hind coxæ. In regard to subfamily division among those Tenebrionids which have no coriaceous hind margins of the abdominal segments, the following scheme might be proposed:—

Mentum large, covering both the maxillæ and ligula; hind coxæ variable, generally transverse, feebly oblique in some Eurymetoponids and strongly oblique in the Zophosini; trochantin invisible throughout.....TENTYRIINÆ

Mentum smaller, never concealing both the maxillæ and ligula[1].....2

[1] The genera *Astrotus* and *Ologlyptus* constitute a remarkable exception to this rule, the entire buccal opening being closely filled by the mentum; but in all other characters, including facies, these genera are purely Asidid, showing how difficult it is to select characters constant through large groups in the Tenebrionidæ.

2 — Last abdominal segment unmodified.....3
Last abdominal segment transversely excavated.....4
3 — Posterior coxæ oblique and long, approaching the sides of the body; trochantin distinct.....CONIONTINÆ
Posterior coxæ transverse and short, more remote from the sides of the body; trochantin inconstant, invisible to distinct.....ASIDINÆ
4 — Trochantin invisible; epipleuræ usually wholly undefined. ZOPHERINÆ

The Tentyriinæ, as above limited, are divisible into several groups of rather more than tribal value, among which may be cited those genera having the hind coxæ much extended transversely, linear and frequently feebly oblique, the body generally winged; then those with the hind coxæ transverse and more or less oval, and, lastly, those with the hind coxæ very oblique and with the ante-coxal grooves still more oblique, known tribally as the Zophosini. If the Zophosini, which are as completely isolated in the old world fauna as the Coniontinæ are in North and South America, were placed last in the Tentyriid series, the Coniontinæ would naturally follow them, having many suggestive points of resemblance. By this arrangement, which it will be observed, greatly subordinates the importance of the trochantin, many minute forms without trochantin, such as *Arœoschizus* and *Stenosis* would be included with the Asidinæ. The Zopherinæ are so isolated as to assume subfamily rank, very obviously it would seem.

The Coniontinæ as a group have the body oblong or oblong-oval in form, compact, with the prothorax at base as wide as the elytra, usually enveloping the humeri at the sides to a more or less noticeable degree, the epistoma emarginate or sinuate at the middle, the eyes at the sides of the head, transverse, rarely divided and the mandibles short, stout and bifid at tip. The mentum is rather small, obtrapezoidal and sinuate at tip and there is at the apex of the post-mental surface a transverse area, defined by a rapid divergence of the gular sutures. The ligula is large, transverse, sinuate and densely chitinized and the palpi of the usual Tenebrionid type, the last joint obtriangular. The antennæ differ from those of *Asida* in having a free, subequal club, generally of three joints. The legs are rather stout, well developed, the anterior tibiæ more or less obtriangular, with the

outer angle frequently prolonged, the tarsi always spinulose beneath, the anterior coxæ transversely oval, the intermediate very moderately separated, the prosternal process more or less extended and porrect and the mesosternum between the coxæ impressed and concave, these latter characters, with the long and well developed tibial spurs, elongate basal joint of the hind tarsi and oblique hind coxæ, recalling the Zophosini very forcibly. The fourth abdominal segment is very short when compared with the three anterior segments. The members of the Coniontinæ are neo-subarctic and neo-subantarctic exclusively and are represented on the Pacific slope of North America by the Coniontini and Cœlini, on the Atlantic slope by the Branchini and in South America by *Praocis* and allied genera. In the old world, as previously intimated, they are replaced by the Zophosini, which might be assumed to have almost if not quite subfamily rank.

The present revision omits the Praocini, as I have no representative of this South American tribe. The other tribes may be outlined briefly as follows:—

Intercoxal process of the abdomen moderately broad, truncate; elytra embracing the sides of the body beneath; antennæ well developed, elongate; hind coxæ rather more feebly oblique, body generally ridged above and roughly sculptured ..... **Branchini**

Intercoxal process narrow, more pointed or rounded and projecting further into the metasternum 2

2 — Antennæ long and slender, very well developed; basal joint of the anterior tarsi variable, elongate or short, in the latter case more or less eccentrically triangular and in some cases very prominent at the inner apical angle, suggesting the spur-like process of the next tribe..... **Coniontini**

Antennæ very small, compact, with the joints transverse; basal joint of the anterior tarsi greatly prolonged internally at apex, forming a spur which sometimes extends almost to the end of the tarsus. **Cœlini**

The Coniontini are extremely abundant, having a widely extended distribution almost coincident with that of *Eleodes*, but the Cœlini are less numerous and are restricted to the seashore of California and Lower California, occurring also on the neighboring islands.

The form of the prosternal process is not always of deci-

sive importance in the Tenebrionidæ, as for example within the tribe Epitragini, but I have never noticed any species of the Coniontinæ in which this process is not prolonged and subhorizontal, and but few of the Asidinæ in which it is not strongly and rapidly deflexed to the posterior margin of the prosternum, this being a rather consistent feature distinguishing these two subfamilies, in addition to the form and extent of the mentum and hind coxæ and structure of the antennæ. All of these differential characters are as pronounced in *Branchus* as they are in *Eusattus*, *Coniontis* and *Cœlus*, and it is therefore somewhat surprising that the true affinities of *Branchus* were not more fully dwelt upon by LeConte and Horn, who make but little mention of the subject. The gular characters given by LeConte (Class., 1 ed., p. 219) to distinguish the Branchini from the Coniontini appear to be inconstant and of but little importance. As to the Praocini of Lacordaire, that author, it is true, includes certain genera with deflexed prosternal process, making of them a separate section of the tribe, but it is possible that they may properly be excluded from the subfamily Coniontinæ, leaving *Praocis* and its subgenera alone to be included among the South American forms.

Tribe Branchini.

This tribe, which has little or no relationship with *Asida*, is very limited in the number of its species and genera and is the Atlantic coast representative of the western Coniontini and Cœlini, extending from Florida to Central America, although one species has recently been announced, by Mr. Champion, as inhabiting the western Mexican State of Guerrero. I have no example of our Florida or Bahama species, but a specimen of *Branchus obscurus* Horn, from Nicaragua, very kindly given me by Mr. Wickham, is a pure Eusattid in every way, except in having the hind coxæ more widely separated and the basal joint of the anterior tarsi not materially larger than those that follow it. One of its most striking points of resemblance with the Eusatti and with *Praocis* is the form of the epipleuræ, which are narrow very nearly to the base, where they suddenly expand to the sides of the elytra, forming a prominent point

at the humeri, and the acute side margins of the elytra are exactly as in *Discodemus* and *Megasattus;* the basal angles of the prothorax are prolonged backward very distinctly but to a much slighter degree than in any of the Eusatti. The scutellum is moderately developed and triangular to obsolete, the head and eyes nearly as in Coniontini, except that the notch at the extremity of each oblique suture is much more pronounced, the general form recalling *Asida*, and all the oral organs as well as the antennæ are purely Coniontid. The pronotum is finely costate along the median line and reflexed at the sides, the basal joint of the hind tarsi much elongated and the anterior tibiæ minutely dentate externally at tip.

Tribe Coniontini.

It appears to the writer eminently illogical to consider the remarkably diversified elytral epipleuræ, among the forms allied to *Eusattus*, as having anything less than generic value. It is unfortunate that our nomenclatorial system should be compelled to absorb so many names, but there is nothing to prove that the various and radical modifications are inconstant and I have seen no intermediate forms. The epipleuræ are perfectly constant throughout the genera *Eusattus*, with numerous species, *Discodemus*, with some seven apparently specific forms and elsewhere. A very noteworthy circumstance concerning this tribe, as well as the next, relates to the results of isolation on the islands off the coast of California, a large proportion of the forms occurring there being generically different from those of the mainland. The genera, which form two distinct subtribal groups clustering about *Eusattus* and *Coniontis* respectively, may be defined as follows: —

Elytra widely embracing the sides of the body, the epipleuræ variable; anterior tibiæ with everted external angle at apex; basal joint of the anterior tarsi long, slightly dilated at or toward tip; prothorax always prolonged backward at the sides and enveloping the humeri; scutellum nearly obsolete. [Subtribe Eusatti]....2

Elytra narrowly embracing the sides of the body, the epipleuræ constantly narrow and occupying the entire inflexed part; anterior tibiæ with uneverted or very feebly everted external angle at apex, the basal joint of the anterior tarsi short, obliquely truncate at tip; prothorax variable at base but generally more truncate; scutellum generally well developed. [Subtribe Coniontes]....8

2 — Epipleuræ very wide, occupying the entire inflexed sides of the elytra; intercoxal process of the abdomen acute; antennæ slender, dilated moderately toward apex. Habitat insular. [Type *Eusattus robustus* Lec.] ..... **Nesostes**

Epipleuræ narrow, occupying much less than the entire inflexed sides of the elytra, except sometimes at the immediate base 3

3 — Epipleuræ abruptly dilated at base to the lateral limits of the elytra; intercoxal process of the abdomen acute; body oblong or oblong-oval, moderately convex 4

Epipleuræ gradually becoming wider basally, sometimes extending to the sides of the elytra at base; sides of the elytra always obtusely rounded in section, never acutely margined; antennæ slender, dilated apically, the joints loose and obtriangular to subcylindric 7

4 — Sides of the elytra acute and reflexed almost to the apex; elytra conspicuously sculptured 5

Sides obtusely rounded in section as in *Eusattus* 6

5 — Antennæ less slender, compressed, more glabrous and more compact, gradually and more feebly enlarged distally, the joints obtrapezoidal, the subapical transverse, the eleventh narrower than the tenth; tarsi long and slender; femora and propleuræ glabrous. Habitat Sonoran of the Lower Rocky Mountains. [Type *Zophosis reticulata* Say] ..... **Discodemus**

Antennæ slender, the joints obtriangular, gradually wider distally, the last joint as wide as the tenth and longer; tarsi shorter and stout; femora and propleuræ with bristling hairs. Habitat Lower California. [Type *Eusattus erosus* Horn] ..... **Megasattus**

6 — Elytra without coarse sculpture or punctuation of any kind, subopaque. Habitat Lower California. [Type *Eusattus lævis* Lec.]. **Eusattodes**

7 — Intercoxal process of the abdomen acute, the coxæ throughout narrowly separated; body oblong-oval to parallel, moderately convex; propleuræ with or without bristling hairs. Habitat widely extended in the Sonoran and Pacific regions. [Type *E. difficilis* Lec.]. = *Conipinus* Lec. ..... **Eusattus**

Intercoxal process obtuse, the coxæ more widely separated throughout; body more broadly rounded, very convex, the sculpture more muricate; propleuræ with more conspicuous bristling hairs. Habitat as in *Eusattus*. [Type *Eusattus muricatus* Lec.] ... **Sphæriontis**

8 — Scutellum well developed, triangular 9

Scutellum subobsolete, very minute, triangular 12

9 — Posterior angles of the prothorax strongly posteriorly produced, as in the preceding group of genera; palpi more elongate than usual; last three joints of the antennæ moderately dilated; basal joint of the anterior tarsi rather longer than the next two com-

bined, obliquely prominent internally at tip, two to four transverse, rapidly diminishing in size. Habitat insular. [Type *Coniontis lata* Lec.] ..... **Coniontides**

Posterior angles of the prothorax feebly produced posteriorly, the thoracic base frequently subtruncate; anterior tarsi as in *Coniontides* 10

Posterior angles not at all produced, the thoracic base transversely subtruncate 11

10 — Eyes transversely reniform, entire, moderately coarsely faceted as usual; body larger in size as a rule. Habitat widely extended from eastern Colorado to British Columbia, San Diego and the islands off the Pacific coast. [Type *C. viatica* Esch.]. **Coniontis**

Eyes completely divided; body smaller, the legs and antennæ shorter. Habitat nearly as in *Coniontis*, excepting the immediate coast of the Pacific. [Type *Coniontis obesa* Lec.] ..... **Coniontellus**

11 — Body small in size, oblong, the eyes as in *Coniontis;* legs longer, the tarsi long and filiform, the four basal joints of the anterior subequal and slightly elongate, the basal joint of the posterior relatively much shorter than usual, but little longer than the next two combined; mesosternum scarcely so much as impressed on its anterior slope; palpi and antennæ elongate and slender; frontal margin of the head more nearly as in *Eusattus.* Habitat northern Pacific coast regions. [Type *C. rectus* Csy.] ..... **Conisattus**

12 — General habitus as in *Coniontis* but muricately and generally densely punctured, the front and eyes similar; base of the prothorax feebly and very gradually produced backward at the sides; legs, antennæ and palpi as usual; anterior tarsi moderate, the basal joint as long as the next two combined, strongly and rapidly dilated and very obliquely, sinuously truncate at apex, the inner angle pronounced and prominent though obtuse, the inner surface apically impressed, joints two to four subequal, feebly transverse. Habitat insular. [Type *C. punctulata* Horn] ..... **Cœlotaxis**

The only one of the above genera not represented before me at present is *Eusattodes*, founded upon a very rare species inhabiting the lower extremity of Lower California near Cape San Lucas. *Cœlotaxis* makes the closest approach to the Cœlini in sculpture, retraction of the scutellum and form of the first anterior tarsal joint, but is a true Coniontid nevertheless. *Conipinus* Lec., was founded upon *Eusattus dubius*, a very small oblong convex species, but I cannot find any structural character to distinguish it from the other members of the true *Eusattus*, except a more oval and less pointed form of the last antennal joint. At first it seemed possible that its smooth surface and

sparse, even, muricate punctures might give it validity, but it is connected in this respect so gradually, by way of *productus* and *difficilis*, with the coarsely reticulate species of the *convexus* type, that this attempt also proves futile and we are compelled to suppress the name as a virtual synonym of *Eusattus*. In Dr. Horn's later tables of *Eusattus*, which included all of the subtribe Eusatti as defined above, he gave far too much weight to the margining of the prosternal lobe, bringing thereby into juxtaposition species that have no close mutual relationship whatever; this is especially noticeable in his latest table (Proc. Cal. Acad., Ser. 2, IV, p. 423). Although wholly without significance in delimiting groups, the beaded margin of the prosternal lobe is useful in defining species if interpreted broadly, due allowance being made for a certain amount of variability, or more especially accidental malformation. It becomes particularly valuable in the great genus *Coniontis*, so deficient in marked structural diversity, as will appear subsequently.

It is interesting to note, in view of the many points of resemblance between the Coniontinæ and Zophosini, that one of the first of our species to be described should have been assigned to the genus *Zophosis* by Say, presumably upon descriptive evidence only. It may also be observed in connection with statements made above, that more than a fourth of the genera of Coniontini are confined exclusively to the islands off the coast of California.

Nesostes n. gen.

This genus is represented at present by one or two species, among the largest of the entire subfamily and possessing many peculiarities of structure and sculpture. The epipleuræ are very wide and almost even in width in about basal half, between the simple inner margin of the inflexed part of the elytra and the acute and very narrowly reflexed lateral margins, and the elytral sculpture is notably different from anything occurring elsewhere. The type may be described as follows: —

Body broadly oblong-oval, convex, glabrous, with a few fulvous hairs near the external margin of the hypomera posteriorly and on the epipleuræ, except externally, deep black, the upper surface aluta-

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ceous; head rather finely but strongly, moderately closely punctured; antennæ rather slender, moderately dilated apically, the third joint but little longer than the fourth; prothorax about two and a third times as wide as its median length, minutely and sparsely punctured throughout, the punctures but little more distinct or closer laterally, simple, the sides subexplanate, with the edges heavily beaded, the bead extending entirely across the apex, but becoming very feeble medially; scutellum obsolete; elytra but little longer than wide, nearly three times as long as the prothorax, the sides arcuately converging in about apical half, the apex obtusely ogival; surface nearly smooth, minutely, remotely punctate, the punctures slightly larger but only slightly less remote though muricate laterally and apically, the interspaces toward apex becoming closely, evenly granulose and polished; anterior tibiæ strongly produced and angulate externally at apex, the basal joint of the anterior tarsi less elongate than usual, but little longer than the next two joints combined; prosternum alutaceous, the process thickly margined and impunctate. Length 16.0–16.5 mm.; width 10.5–11.0 mm. Island of San Clemente..... .....**robustus** Lec.

A — Form more oblong-subparallel and narrower than in *robustus*, similarly sculptured, the sides of the prothorax more rounded and relatively more converging anteriorly and more parallel behind the middle; elytra more gradually and less obtusely subogival behind; antennæ less slender; anterior tibiæ a little shorter, relatively somewhat broader at tip; marginal bead of the prothorax not subequal in thickness throughout, as in *robustus*, but still thicker apically than basally. Length 17.0 mm.; width 10.5 mm. Island of San Clemente.

postremus n. subsp.

In the subspecies *postremus*, which is described from a single female specimen, the form is obviously different from that of the more evenly subelliptic and broader *robustus* and there are several other minor differences as enumerated above; it might be added, also, that the hind angles of the prothorax are more abruptly acute and more prolonged posteriorly. The abruptly polished area on the posterior declivity of the otherwise subopaque elytra is a rather remarkable character, peculiar to this genus.

Discodemus Lec.

The components of this genus are moderately numerous but so closely allied among themselves as inevitably to give rise to discussion concerning their true status. I have given them specific rank, by no means confidently, although they are recognizably definable and do not seem to intergrade, in fact consti-

tuting a typical example of divergence due to local environment in what may possibly be a comparatively recently evolutionized type. The genus is well represented in almost every collection and nothing further in way of description is called for at present, except to draw attention to the form of the antennæ as a generic character hitherto overlooked. The body is smaller, more oval and much less convex than in the preceding genus and the basal joint of the anterior tarsi is longer, being almost as long as the next three combined; the outer apical angle of the anterior tibiæ is not so strongly everted but is much more acute at tip; the scutellum is similarly obsolete. The specific or subspecific modifications known to me may be outlined as follows: —

Body moderately convex, stout, very obtusely rounded behind, with a short obtuse sutural projection.....2

Body narrower, more depressed, the sides more gradually, arcuately converging behind to the subacute apex.....7

2 — Upper surface of the body only partially opaque, the elevations of the elytra rather strongly shining.....3

Upper surface opaque throughout, the elevations of the elytra at most alutaceous.....6

3 — The irregular anastomosing depressions forming broad lines between the narrower, feebly elevated and irregular subelevated lines of the elytra, deep and better defined by the small asperulate and minutely setigerous punctures along their anterior margins..4

The anastomosing depressions very shallow, small in size and but little less shining than the remainder of the surface, the entire upper surface more shining than in any other species.....5

4 — Form oblong-suboval, convex, deep black, the head dull and distinctly micro-reticulate, the pronotum more feebly and less dull, the former finely but distinctly, not densely punctate, the latter very minutely sparsely so throughout and only a little more distinctly or less sparsely laterally, the apex circularly emarginate and evidently more than half as wide as the base, the sides broadly, evenly rounded, the surface broadly explanate toward base, narrowly so anteriorly, the marginal bead fine and almost completely obsolete, the base broadly bisinuate and about two and a fourth times as wide as the median length; elytra but little longer than wide, feebly inflated, the broadly arcuate sides becoming rapidly converging and more arcuate in apical two-fifths, the apex very obtusely ogival, the reticuliform erosions deep and opaque, very confluent and irregular, the punctures on their anterior edges fine and only moderately distinct, feebly asperate, the six discal ridges on each elytron subequal and rather narrow, irregular; prosternum

finely, sparsely punctate, the process margined at the sides but only at its base between the coxæ; basal joint of the hind tarsi as long as the entire remainder. Length 12.0 mm.; width 7.8 mm. New Mexico. [= *Zophosis reticulata* Say].....**reticulatus** Say

Form and general characters nearly similar but more broadly oval and less oblong, the eroded depressions of the elytra large, less numerous and less anastomosing, the interspaces and longitudinal lines shining, the erosions deeper than in any other species and more abruptly defined by transversely irregular lines of close-set and strongly muricate punctures; inflexed sides of the elytra rather coarsely but sparsely punctured, the punctures much more distinct than in *reticulatus*. Length 12.8–13.8 mm.; width 8.7–9.5 mm. Texas (near El Paso).....**corrosus** n. sp.

5 — Form broadly oblong-oval, inflated posteriorly, strongly convex, deep black, the anterior parts alutaceous (♀) or opaque (♂), the head and pronotum very minutely and sparsely punctate, the former much more finely than in *reticulatus;* sides of the latter rather broadly, subequally explanate throughout (♀) or scarcely at all explanate (♂); elytra shorter than in any other species, much shorter than wide in both sexes, the longitudinal elevations very faint and ill-defined, stronger in the male, most of the surface rather strongly shining, the muricate punctures finer, less close-set and not forming such distinct transverse lines as in *corrosus;* inflexed sides of the elytra only very finely, remotely and indistinctly punctulate. Length 10.8–13.5 mm.; width 7.5–8.6 mm. Arizona (Grand Canyon of the Colorado), — T. Mitchell Prudden.....**brevipennis** n. sp.

6 — Body oblong-oval to oblong, convex, deep black, dull and opaque in lustre; head and prothorax alutaceous, faintly and sparsely punctulate as in *brevipennis*, the sides of the latter more narrowly and more concavely explanate, the reflexed part subequal in width throughout; elevated parts of the elytra strongly alutaceous, the erosions rather deep, irregularly confluent, the asperulate punctures fine, sparse and moderately distinct but not defining the erosions, the six longitudinal lines on each elytron unusually evident, especially in the male; elytra unusually elongate, evidently longer than wide in both sexes, the inflexed sides sparsely and sometimes distinctly punctate. Length 11.8–13.8 mm.; width 7.6–9.7 mm. Arizona (San Bernardino Ranch, Cochise Co.), — F. H. Snow .....**elongatulus** n. sp.

Body oblong-oval, smaller than in *elongatulus* and less convex, more abbreviated, the lustre subopaque, the prothorax more transverse, with the apex not more than half as wide as the base, less concavely explanate at the sides and sometimes sensibly more broadly toward base; elytra about as long as wide, the elevated lines less distinct, the eroded foveæ large, rather deep, impressed and anastomosing, not at all defined by the small punctures, which are sparse and not definitely muricate, usually hardly

visible, the inflexed sides more shining, variably but feebly and sparsely punctulate. Length 10.5–12.8 mm.; width 7.4–9.0 mm. Arizona (more especially southern).....**depressulus** n. sp.

Body oval, rather smaller than in *depressulus* and much more convex, subopaque throughout above, the elytra with sericeous lustre; head rugulose anteriorly, with the margin more reflexed than usual; prothorax less transverse, nearly as in *reticulatus* but more narrowed from base to apex, the sides evenly and concavely explanate; elytra as long as wide, inflated, the erosions small, feeble and isolated, more punctiform, the small punctures fine and very feeble, scarcely muricate and clustered in small groups of two to four at the erosions, the general surface almost smooth, the alternate elevated lines obsolete, leaving three very feeble lines on each elytron, the inflexed sides rather opaque and scarcely punctate. Length 11.6 mm.; width 8.0 mm. Arizona, — Warren Knaus.....**subsericeus** n. sp.

7 — Form much more narrowly elongate-oval than in any of the preceding and gradually pointed behind, deep black, subopaque; head flat throughout above, moderately sinuate at apex, finely and sparsely punctate; antennæ stout and strongly compressed as usual; prothorax barely two and one-half times as wide as its median length, the sides evenly converging and arcuate from base to apex, the latter somewhat more than half as wide as the base, minutely, sparsely punctate, slightly less sparsely and less obscurely toward the sides, which are moderately explanate, with a feeble thickened bead; elytra fully three times as long as the prothorax, evidently longer than wide, very feebly subcostulate and with large subisolated and feebly impressed opaque areas suturally, which completely coalesce laterally, forming a broad opaque irregular area bestrewn with very small muricate punctures, the side margin with a bilaterally symmetric sinus, corresponding with an epipleural impression, slightly behind the middle,— a character which is probably accidental in the single specimen from which the description is drawn; — under surface and epipleuræ less opaque, minutely, sparsely punctulate. Length 11.7 mm.; width 7.8 mm. Colorado (Fremont Co.), — Warren Knaus.

knausi n. sp.

The male is usually a little smaller, narrower and more parallel in form than the female, but in *brevipennis* it is very much smaller and rather more dilated than the female. Individuals appear to be more abundant than in any other genus of the Eusatti and good series of several species are before me.

Megasattus n. gen.

Two species, one of which is the largest known North American member of the subfamily Coniontinæ, are the only repre-

sentatives of this genus thus far discovered. While allied more closely to *Discodemus* than to any other, it differs markedly in antennal structure, the antennæ being notably slender basally and decidedly dilated distally, in the form of the lateral margins of the elytra, which are not evenly acute but acutely rounded in section, sculptured and uneven and not smoothly cariniform and in the more parallel and oblong form of the body, with the prothorax not widest at base as in *Discodemus* but slightly behind the middle. It also inhabits a very different faunal region, which amply accounts for the present structural divergencies, though apparently springing from the same archetype at no very distant time in the geologic past, as indeed did all these allies of *Eusattus*. The species may be defined as follows: —

Form oblong, strongly convex, deep black, glabrous, the head evidently and the prothorax very feebly alutaceous in lustre, the elytra polished except in the erosions, the latter being opaque; head rather strongly, moderately closely punctate, the anterior margin slightly reflexed, moderately sinuate at the middle and feebly emarginate laterally; antennæ a little longer than the prothorax, the third joint much the longest, the tenth obtrapezoidal, slightly transverse, broadly angulate at tip, the eleventh as wide as the tenth and longer, acutely angulate; prothorax two and one-half times as wide as its median length, the deep apical sinus transverse medially, the angles prominent but rounded, the basal angles rather abruptly but only moderately produced posteriorly, acute, the lateral sinuses of the base deep, relatively small, the median lobe very broad; sides evenly rounded, strongly, moderately thickly beaded, narrowly explanate; punctures fine and sparse, becoming rather close, larger and muricatulate laterally; elytra decidedly longer than wide, obtusely ogival behind, feebly dilated, the sides slightly arcuate, each with two distinct obtuse ridges, the intermediate ridges very feeble, the surface pitted with numerous small deep irregular and isolated erosions, with their anterior margins rendered very rough and jagged by the rather strong and very asperate, minutely setigerous punctures, the flanks just above the acute side margins more deeply and continuously eroded and opaque, with the included punctures less asperate; inflexed sides asperately punctate; prosternal lobe dilated and spatulate apically, laterally margined only along the coxæ; anterior tibiæ with the external apical projection very acute. Length 19.0 mm.; width 11.5 mm. Lower California.

erosus Horn

Form rounded-oval, convex, black, subopaque, the prothorax finely and sparsely punctured medially and densely though very faintly

granulate laterally, the margin not thickened; elytra subcostate, the intervals coarsely punctured and with small, smooth and rounded tubercles; inflexed sides densely and coarsely punctured. Length 16.5 mm.; width 10.0 mm. Lower California.

costatus Horn

Costatus is unknown to me and the description here given is essentially a copy of the original; it occurs in the same locality as *erosus*. The single male specimen representing the latter species in my cabinet and described above has not been compared with the original type, but appears to be an authentic example.

Eusattodes n. gen.

The chief distinctive character of this genus seems to be the abruptly and basally dilated epipleuræ, the latter at base extending laterally to the sides of the body, as in the preceding genera, but here combined with rounded *Eusattus*-like sides of the elytra in section, without trace of the acute margin there prevailing. It also differs from all except *Eusattus secutus* in the completely impunctate integuments and probably in several other characters, which must remain unknown to me for the present, in the absence of typical examples. The type and only described species is the following:—

Body oval, convex, black, subopaque above and beneath, less rounded in outline than in *Discodemus*, with the sides of the elytra almost straight from the base to beyond the middle and nearly parallel; upper surface entirely without sculpture; elytra slightly inflated posteriorly, impunctate, suddenly declivous at the sides; thoracic angles posteriorly produced, the anterior tibiæ obliquely prolonged at the outer angle, which is rounded at the tip. Length 14.0 mm.; width 8.0 mm. Lower California (Cape San Lucas).

lævis Lec.

According to Horn the prosternum is not margined in *lævis* and the tip of the process is rounded and smooth.

Eusattus Lec.

This is a large genus, embracing considerable variety in the form and sculpture of the body, but the epipleuræ throughout are virtually constant in extent and configuration, this being one of the strongest of the reasons inducing me to believe that these radical epipleural modifications must be given full generic weight

and not lightly passed over as advocated by Horn, the latter author even going so far as to advance such a trivial character as the margination of the prosternal lobe over epipleural structure in inserting *lævis* between the mutually congeneric species *politus* and *dubius* in his latest table (l. c., p. 423). The species of *Eusattus* are widely distributed from western Kansas and Oregon to Lower California and are smaller in size than in any of the preceding genera; those known to me either actually or by description may be recognized by the following characters: —

Elytra absolutely impunctate as in *Eusattodes lævis*. Form oblong-oval, nearly as in *dubius*, black, moderately shining; head opaque, sparsely punctate, the clypeus nearly entire; prothorax rather more than twice as wide as long, widest at base, the side arcuate, the margin not fimbriate and the hind angles acutely prolonged posteriorly; surface convex, completely impunctate; elytra smooth, impunctate, the epipleuræ gradually and but little wider at base, absolutely smooth; prosternum coarsely punctured between the coxæ, the tip of the process rounded and with a distinct marginal bead; abdomen very sparsely and finely punctate, shining. Length 9.0–10.0 mm. Lower California (El Taste and San José del Cabo) ..... **secutus** Horn

Elytra with sparse but evident, more or less muricate punctures.....2

Elytra with larger, subconfluent to small and irregular but isolated, punctiform erosions, without evident muricate punctures, and having uneven, usually elevated impunctate lines; prosternal process never margined apically.....14

2 — Form oblong-elongate, the elytra smooth or nearly so, with the punctures small or moderately small in size; prothorax in the male very transverse, wider than the elytra.....3

Form oblong or oblong-oval, much less elongate, the clypeus never so distinctly emarginate at the middle of the rounded sides, at the ends of the oblique sutures, as in the preceding group.....9

3 — Body small in size, strongly convex, the elytra very smooth, the punctures very small, sparse, evenly but irregularly distributed throughout, generally becoming distinctly muricate only toward the sides; tarsi slender. [= *Conipinus* Lec.].. 4

Body much larger, relatively less convex, the elytra nearly smooth but sometimes with vestigial longitudinal areas of greater elevation, the punctures less minute and strongly muricate throughout, with longitudinal and very feebly defined lines, corresponding with those of greater convexity, in which they become sparse or wanting; tarsi stouter 6

4 — Color black or piceous-black, the prothorax less transverse and with less converging sides, generally but little more than twice as wide

as long. Body oblong-elongate, very convex, shining to feebly alutaceous, glabrous, the flanks sparsely puberulent; head strongly but not densely punctate, the apical margin only moderately reflexed, sinuate at the middle, the lateral emarginations small and feeble; prothorax with the apex nearly three-fourths as wide as the base, the angles slightly acute and but little blunted, the surface convex, minutely, sparsely punctate medially, much more coarsely but rather sparsely and non-muricately laterally, the sides narrowly explanate and finely beaded; posterior angles small, not greatly prolonged though acute; scutellum wholly obsolete; elytra a fourth longer than wide, as wide at the middle as any part of the prothorax (♂) or wider (♀), the sides feebly arcuate, the apex obtuse; surface almost vertically declivous posteriorly, with small impressed and very sparse but distinct simple punctures, becoming but little larger or closer and only very feebly muricate on the flanks; hypomera ciliate; prosternum sparsely pubescent, the process impunctate, pointed and unmargined at tip; anterior tibiæ serrulate externally except apically, the external process long, rather acute; epipleuræ narrow. Length 6.3–7.9 mm.; width 3.3–4.7 mm. California (Kern Co.).....**nanus** Csy.

Color piceous-black to pale piceo-testaceous, the prothorax much more transverse, always much more than twice as wide as long, much wider than any part of the elytra (♂) or scarcely obviously so (♀), the sinuate apical margin of the head more strongly reflexed and the lateral emarginations very distinct.....5

5 — Body elongate, very convex, polished, glabrous though with a few small hairs laterally; head finely, sparsely punctate, densely near the transverse suture, impunctate and polished in the apical concavity behind the reflexed margin; prothorax two and one-half times as wide as its median length, the apex two-thirds as wide as the base, the angles and side margins throughout nearly as in *nanus*, the sides much more converging from base to apex, the punctures very minute even laterally and much less distinct; elytra narrower and more elongate, almost a third longer than wide, the sides less arcuate, the apex obtuse, the punctures fine but distinct, sparse, feebly asperate medially, distinctly so laterally; prosternum with only a few short hairs, the process impunctate, obtusely rounded or subtruncate and unmargined at tip; anterior tibiæ only feebly serrulate externally, the apical process moderate, not so prolonged as in *nanus*. Length 7.9–8.5 mm.; width 4.3–4.8 mm. Arizona (southwestern) and California (Colorado Desert).....**dubius** Lec.

Body nearly similar in form and size but less convex and less polished, slightly alutaceous in lustre, rufo-piceous throughout; head nearly as in *dubius* but more angularly prominent at the sides before the eyes, less strongly reflexed along the clypeal margin and more coarsely and densely punctured toward the transverse suture, the punctures also extending further anteriorly toward the reflexed

margin; prothorax similar but less narrowed at apex and more parallel toward base, with the side margins more concave and the apical sinus more transverse medially, the punctures small but less sparse and more distinct, not differing much laterally, the basal angles rather more prolonged backward, acute; elytra similar in outline but less convex, slightly narrower than the prothorax, the sides parallel and feebly arcuate, rounding at base within the thoracic angles as usual, punctured nearly as in *dubius* but somewhat less sparsely; prosternal lobe broadly rounded at tip, impunctate, very faintly and finely margined throughout its apical contour; anterior tibiæ crenulate externally, the external apical projection unusually feeble, much smaller than in *dubius*. Length 8.0 mm.; width 4.3 mm. California (Lancaster),—H. F. Wickham ..... **oblongulus** n. sp.

6 — Prosternal process not margined except along the coxal cavities...7

Prosternal process margined at the rounded apex and also along the cavities 8

7 — Explanate lateral margins of the pronotum deeply concave. Body (♂) cuneiform, moderately convex, black throughout, glabrous, though with a few small hairs on the flanks, the hypomera roughly punctured and ciliate, the femora fulvo-pubescent; upper surface feebly shining, alutaceous; head finely, not densely punctate, the clypeus concave anteriorly, subangularly sinuate at the middle, with the margin only moderately reflexed, the lateral emarginations feeble; prothorax very transverse, much narrowed anteriorly, the apex circularly sinuate and about three-fifths as wide as the base, the angles less than right but blunt, the basal angles only moderately produced and not very sharp, the sides arcuate; surface minutely punctate, remotely so medially, more closely but not much less finely laterally; scutellum much larger and more transverse than in the *dubius* group, though similarly confined to the basal slope; elytra about a third longer than wide, parallel, with the sides feebly arcuate, not very obtuse at tip, much narrower than the prothorax, the asperate punctures sparse and uneven in distribution, closer but not much larger laterally; surface with some very feeble and irregular longitudinal impressed lines; anterior tibiæ very finely, closely serrulate along the external edge, the apical angle acute but only very moderately developed, Length 10.5 mm.; width 5.8 mm. (♂). Arizona (southwestern)..... **productus** Lec.

Explanate lateral margins nearly flat. Body (♂) rather more elongate and less cuneiform, piceo-castaneous in color, alutaceous, glabrous as in *productus* and similarly punctured, except that the punctures of the head and pronotum are even more minute and indistinct and those of the elytra larger and stronger; head nearly similar; prothorax similar but somewhat less transverse, scarcely two and one-half times as wide as its median length; elytra two-fifths longer than wide, parallel and nearly straight at the sides,

broadly ogival at tip, evidently narrower than the prothorax but not so markedly as in *productus*, the surface with more numerous lines devoid of punctures, the lines just visibly more convex than the rest of the surface; body (♀) larger, notably stouter, more parallel and more shining, the elytra fully as wide as the prothorax or a little wider, with the sides more arcuate, also having more numerous flavate hairs on the sloping sides of the pronotum; hypomera and anterior tibiæ in both sexes nearly as in *productus*. Length 11.4–11.8 mm.; width 6.0–6.9 mm. (♂, ♀). California (Colorado Desert).....**explanatus** n. sp.

8 — Body (♂) nearly as in *explanatus* but rather more abbreviated and somewhat smaller in size, feebly shining, piceous-black; head and prothorax nearly as in *explanatus*, the antennæ somewhat shorter and thicker; elytra not more than a fourth longer than wide, scarcely narrower than the prothorax, parallel, with the sides feebly arcuate, the surface more even, without longitudinal lines of greater convexity but with the punctures, which are still stronger, closer and more coarsely muricate, especially on the flanks, arranged in very irregular longitudinal areas of greater or less approximation; anterior tibiæ similar; basal joint of the hind tarsi similarly not longer than the last two combined. Length 10.4 mm.; width 6.0 mm. (♂). Arizona (southwestern).
vicinus n. sp

Body more elongate than in *vicinus*, less black and more castaneo-piceous in color, almost similarly sculptured; head very slightly larger, similarly opaque and finely, sparsely punctate but having the apical reflexed edge continuous and not interrupted at the sinus; prothorax slightly less transverse and having the basal lobe not very broadly rounded but more narrowly rounded and prominent than in any other species, otherwise as in *vicinus*, except that the apical angles are less blunt and more prominent, the sides just behind them very faintly sinuate; elytra decidedly more elongate, almost a third longer than wide, more evidently narrower than the prothorax than in *vicinus* but otherwise nearly similar, the sides less arcuate and the punctures sparser; prosternal process narrower and more feebly margined at apex; anterior tibiæ less abruptly and only moderately prominent externally at tip; intromittent spicule stouter and more punctate, the coriaceous lobe between the lateral alæ of the genital segment canaliculate along the middle and not evenly convex as it is in *vicinus*. Length 11.0 mm.; width 5.8 mm. (♂). Arizona (southwestern).
lobatus n. sp.

9 — Elytral surface smooth. Body oval, very little longer than wide, convex, black, shining; head very sparsely punctate in front, the clypeus not incised [at the sides]; prothorax neither explanate nor ciliate at the sides, very narrowly margined [in original description], without marginal line [Proc. Cal. Acad., 2, IV, p. 423], the base bisinuate, the hind angles obtuse, the surface

sparsely punctate at the sides, nearly smooth medially; elytra with very fine punctures, very remotely placed; epipleuræ gradually wider from apex to base; prosternum coarsely punctured in front, the process margined throughout; abdomen very sparsely and finely punctulate. Length 10.0 mm. California (Sta. Barbara). ..... **politus** Horn

Elytral surface more or less uneven..... 10

10 — Prosternal process margined throughout..... 11

Prosternal process without trace of marginal bead, except basally along the acetabula; elytra with irregular impunctate lines as in *productus* 13

11 — Prothorax very broadly emarginate at apex, the sinus transversely rectilinear medially. Body in form and size nearly as in *difficilis* Lec., oval, feebly shining; head finely punctate, the clypeus broadly emarginate, rounded at the sides, the margin narrowly reflexed; prothorax with the apical angles very obtuse, the basal comparatively short and obtuse, the sides finely margined, the surface narrowly and feebly impressed along the margin, broadly rounded and converging before the middle, subparallel behind the middle; disk alutaceous, sparsely and finely punctate; elytra at the base slightly wider than the prothorax, without lateral margin, feebly carinate, the surface alutaceous, with small sparse submuricate granules; epipleuræ gradually wider to the base, sparsely punctate and hairy; prosternum sparsely punctate, the process narrowly oval at tip; abdomen sparsely punctate; legs with short sparse setæ. Length 11.0–11.5 mm.; width 6.0 mm. California (Los Angeles Co.) ..... **coquilletti** Linell

Prothorax more narrowly, deeply and circularly emarginate at tip, with the apical angles more acute and narrowly rounded, the basal angles more posteriorly produced and acute, more evidently embracing the humeri, the sides evenly converging from the base, evenly and broadly arcuate; scutellum rather more evident than usual; elytra with more or less evident ridges which are scarcely less punctate than other parts of the surface..... 12

12 — Form broadly oblong-oval, moderately convex, deep black, subglabrous above, ciliate at the sides, the femora with short and stiffer hairs; upper surface opaque (♂) or moderately shining (♀); head rather strongly, moderately sparsely punctate, the clypeus rather feebly reflexed, sinuate at the middle, the lateral incisures obsolete; prothorax scarcely two and one-half times as wide as its median length, convex, moderately widely declivo-explanate at the sides, with the marginal bead fine but elevated, the punctures small but distinct, only moderately sparse, becoming rather coarse but well separated and minutely setigerous laterally; elytra barely longer than wide, the marginal line obtusely protuberant at tip, equal in width to the prothorax in both sexes, the sides feebly arcuate, the surface rugose, rather coarsely, evenly

and not very closely punctate, the punctures sharply muricate and minutely setigerous; a few very irregular and more convex longitudinal lines are evident; prosternum sparsely, shallowly punctate; anterior tibiæ strongly but very obliquely prolonged externally at tip, the external edge but feebly sinuate and finely, inconspicuously spinulo-serrate; epipleuræ subconcave basally, sparsely punctate and hairy throughout. Length 8.0–11.0 mm.; width 4.8–6.6 mm. California (San Diego).....**difficilis** Lec.

Form nearly as in *difficilis* but less broadly oblong-oval, opaque, glabrous, the punctures less evidently micro-setigerous, the sides beneath much less ciliate, the hairs of the epipleuræ and femora much shorter and less conspicuous; head nearly similar but with the reflexed clypeal margin still more feeble and very shallow, the lateral notches very small but more evident; prothorax nearly similar but with the sides rather less strongly converging from base to apex, the punctures almost similar; elytra more evidently elongate, as wide as the prothorax, parallel, nearly straight at the sides, with more numerous and narrower longitudinal lines of slight convexity, the surface less coarsely and more feebly rugose, with much smaller, sparser and rather less strongly muricate punctures; prosternum densely and rather finely punctato-rugose; anterior tibiæ nearly similar but more strongly sinuate externally beyond the middle; epipleuræ flatter, with the outer margin less deflexed basally, rather less coarsely, very sparsely punctate; flanks of the elytra above the epipleuræ more prominently rounded in profile than in other species except *difficilis*. Length 9.7 mm.; width 5.9 mm. California (Los Angeles Co.)...**agnatus** n. sp.

13 — Body oblong, convex, rather narrow (♂) to very stout (♀), dull in the former, more alutaceous and with the elytra rather shining in the latter, glabrous, ciliate at the sides, the femora with short and sparse yellow hairs; head with moderately strong punctures, gradually close toward the transverse suture, the apex of the clypeus very feebly reflexed, not at all so near the median sinus, the lateral notches obsolete; prothorax nearly as in *difficilis* but less transverse, strongly narrowed with evenly arcuate sides from base to apex, the apex evenly, deeply, circularly emarginate, with rather pronounced and only narrowly blunt angles, the basal angles and explanate sides nearly as in *difficilis*, the explanate surface flat but diminishing in width at the basal angles, the fine raised margin similar; surface convex, more minutely, sparsely punctured, the punctures slightly larger and micro-setigerous laterally though smaller and much sparser than in *difficilis*; scutellum rather evident; elytra slightly elongate, equal in width to the prothorax, with some feebly convex longitudinal lines, the punctures, irregularly disposed for the most part between these smooth lines, unusually coarse, numerous, moderately muricate and micro-setigerous; prosternum sparsely punctate, especially strongly so on the process, feebly and sparsely fulvo-pubescent;

anterior tibiæ nearly as in *difficilis;* epipleuræ nearly similar but with the flanks of the elytra above them evenly and broadly rounded in section and not prominent. Length 10.0–10.3 mm.; width 5.7–5.75 mm. (♂). Length 10.7 mm.; width 6.4 mm. (♀). Oregon.....**compositus** n. sp.

14 — Erosions small, more or less isolated and punctiform, unevenly distributed, generally better defined than in the following group but never muricate.....15

Erosions of the elytra larger, generally confluent and poorly defined, the general sculpture like that prevailing in *Discodemus* 18

15 — Body oblong-oval and parallel in form, not ventricose even in the female 16

Body more rounded and ventricose in the female, the male generally oblong-oval and more parallel.....17

16 — Form stout, convex, glabrous, deep black, strongly alutaceous or subopaque, the elytra of the female much more shining; hypomera with a few short hairs posteriorly but otherwise not ciliate at the sides nor on the femora; head finely but distinctly punctured, rather closely toward the suture, the clypeus rather broadly sinuate, with broad but obvious lateral sinuses, the apex not reflexed but with the surface broadly impressed behind the rounded apical lobes; prothorax distinctly more than twice as wide as its median length, much narrowed and deeply, circularly emarginate at apex, with the angles right and blunt, the basal angles only moderately prolonged, acute and sharp; sides moderately converging and feebly arcuate to before the middle, then more converging and arcuate; surface moderately concavo-explanate laterally, narrowly anteriorly, more broadly basally, the bead very feeble, the punctures very minute and inconspicuous even laterally; elytra but little longer than wide, nearly straight at the sides, the margin acute and reflexed at the humeri, thence disappearing as usual from a dorsal viewpoint, very irregularly and shallowly punctate, the flanks rather abruptly inflexed, the under part much less punctate, the epipleuræ nearly impunctate, polished and glabrous; prosternum finely, sparsely punctate; anterior tibiæ strongly, acicularly everted at tip. Length 9.2–11.0 mm.; width 6.0–6.9 mm. New Mexico (Las Vegas).....**congener** n. sp.

Form nearly as in *congener* but slightly narrower, deep black, glabrous, the anterior parts opaque, the elytra rather shining; head minutely, indistinctly punctate, the clypeus very feebly sinuate medially, the lateral notches subobsolete, the margin not at all reflexed at any point but with the edge very slightly thickened; prothorax shorter and more transverse but otherwise nearly similar, the sides more strongly converging from the base and but little more converging or arcuate anteriorly, the punctures extremely minute and indistinct throughout, the basal angles much produced and very acute; elytra nearly similar but more decidedly longer

than wide, the punctures smaller and very feeble, the inflexed sides, prosternum, tibiæ and epipleuræ similar. Length 9.5 mm.; width 6.2 mm. Colorado.....**acutangulus** n. sp.

17 — Body oblong, small and alutaceous (♂) or ventricose and with the elytra rather shining (♀), glabrous, deep black; head alutaceous, finely and rather sparsely but distinctly punctate, the clypeus broadly sinuate medially, very obsoletely so laterally, not reflexed at apex but broadly and very obsoletely impressed behind the rounded lobes; prothorax short and transverse, very strongly narrowed from base to apex, the latter circularly sinuate, with blunt angles as usual, the hind angles moderately produced, acute and sharp, the sides explanate and nearly flat, rather widely behind, very narrowly at apex, the bead fine but distinctly elevated, the punctures sparse and very minute throughout, sometimes more evident in slight impressions laterally; elytra scarcely longer than wide, with rounded sides, and, at the middle, evidently wider than the prothorax (♀) or parallel and not wider (♂), the punctures coarse and irregular (♀) or smaller and feebler (♂), the flanks, epipleuræ and prosternum as in the two preceding species, the anterior tibiæ with a much smaller and less everted though very acute external angle at apex. Length 8.5–10.0 mm.; width 5.5–6.7 mm. New Mexico (Las Vegas). [Colorado, near Long's Peak, — LeConte].....**convexus** Lec.

Body evenly and broadly elliptical, convex, rather shining though alutaceous, deep black, glabrous; head nearly as in *convexus* though smaller, with the apical sinus rather narrower and deeper; prothorax similar throughout but more evidently and rather less sparsely punctate laterally; elytra about as long as wide, rounded at the sides, the width at the reflexed humeri evidently greater than that of the prothorax, the surface strongly convex and differing from any of the three preceding species in having no elevated lines, the latter being traceable only by absence of punctures, the latter small, feeble, rather sparse and very unevenly distributed throughout, the flanks not very abruptly inflexed and almost smooth; epipleuræ impunctate, more distinctly though gradually wider from apex to base than in the three preceding and similarly concave basally; prosternum finely, sparsely punctate; anterior tibiæ as in *convexus*. Length 9.4 mm.; width 6.0 mm. Colorado (north of Fort Collins), — Warren Knaus.
rotundus n. sp.

18 — Integuments rather shining to alutaceous in lustre.....19

Integuments densely opaque throughout above 20

19 — Form elliptical, moderately elongate, convex, glabrous, deep black, rather shining throughout; head minutely, not conspicuously punctate, the clypeus broadly sinuate medially, obsoletely at the sides, not reflexed but with the margin somewhat thickened; prothorax two and a fourth to half times as wide as its median

length, very strongly narrowed from base to the deeply and circularly sinuate apex, with the sides very evenly arcuate, the angles rather less than right and but slightly blunt, the basal angles much produced and acute; surface scarcely evidently punctate medially, minutely and sparsely so laterally, the margin flatly explanate, rather broadly basally, very narrowly apically, the bead fine and feebly elevated; elytra slightly elongate, equal in width to the prothorax, the sides nearly straight, the reflexed humeral part of the epipleuræ arcuately prominent; surface with stronger longitudinal ridges than in any other species, about six on each elytron, the concave intervals very obscurely, coarsely and confluently foveate and subopaque, becoming more shining and more clearly punctate laterally, the flanks very abruptly inflexed along an obtusely convex line, the under part sparsely punctate; epipleuræ rapidly broader than usual from apex to base, with a few fine punctures and very small hairs internally, the outer edge much deflexed basally; hypomera with a few small decumbent hairs posteriorly. Length 9.0–9.8 mm.; width 5.6–6.2 mm. Arizona ..... **subnitens** n. sp.

Form oval, subinflated posteriorly, larger and stouter, convex, deep black, glabrous, dull and alutaceous, the elytra less strongly so; head nearly as in *subnitens* but more closely punctate; prothorax nearly similar, except that the sides become more converging and straighter anteriorly than near the base, the lateral explaniture more concave, the apical angles more obtusely rounded and the punctures near the sides much larger and closer, though feebly impressed and rather indistinct; elytra but little longer than wide in the apparently female type, somewhat inflated, with broadly arcuate sides, at the middle slightly wider than the prothorax, more abruptly and very obtusely rounded at apex, the reflexed humeral arcuation less prominent; surface with the longitudinal lines less prominent and less shining, the opaque irregular foveæ of the intervals rather better defined, punctiform laterally, the inflexed sides and epipleuræ nearly similar. Length 10.6 mm.; width 7.0 mm. Kansas ..... **turgidus** n. sp.

20 — Body smaller in size, stout, oblong-oval, convex, deep black, glabrous; head flat, minutely, not densely punctate, the clypeus broadly sinuate medially, more feebly but evidently emarginate at the ends of the oblique sutures, not in the least reflexed, thickened or impressed apically, the sutures forming very fine and less opaque unimpressed lines; prothorax formed as in *subnitens*, with strongly converging, evenly and moderately arcuate sides throughout, the explanate sides and basal angles similar, though with the marginal bead very much thicker than in any other species of this group, the apical angles less narrowly blunt, the surface so densely opaque as to obscure all trace of punctuation; elytra scarcely longer than wide, as wide as the prothorax, the sides parallel and straight, broadly rounding about the very obtuse apex in apical

two-fifths, the reflexed humeral part of the epipleuræ narrow and scarcely visible from above, not at all prominent; surface with the longitudinal lines obsolete basally, becoming gradually distinct posteriorly, opaque, the shallow opaque anastomosing foveæ very indistinct basally, becoming larger and more evidently defined apically; flanks rather gradually inflexed, the under side less opaque but scarcely punctured; epipleuræ nearly as in the preceding species; anterior tibiæ only very moderately produced externally at tip, very feebly sinuate externally; under surface more shining, alutaceous. Length 8.4 mm.; width 5 8 mm. Kansas (Fort Dodge), — Warren Knaus .....**peropacus** n. sp.

Body similarly small in size but much narrower and more gradually and acutely produced behind than in any other species, deep black, opaque; head flat, finely, sparsely punctulate, broadly sinuate at apex, the sutures very fine; prothorax nearly as in *peropacus* but much less transverse and less explanate at the sides, being only feebly declivo-explanate even posteriorly, the marginal bead much finer and feebler; elytra fully a fifth longer than wide, at base equal in width to the prothorax, the sides thence parallel nearly to the middle, then gradually arcuate and converging to the acutely rounded and prominent apex; surface convex, with distinct and close-set though feeble ridges which are wholly lost on the flanks and toward apex, the intervals with very indistinct and shallow anastomosing foveæ, which are still more opaque than the ridges; under surface rather shining though evidently alutaceous, the prosternal process flat, evenly, circularly rounded at tip; basal joint of the hind tarsi a little longer than in *peropacus* and about as long as the entire remainder. Length 9.0 mm.; width 5.4 mm. (♂). Kansas (Logan Co.), —Warren Knaus...**acutus** n. sp.

There are three evident groups of species in this genus, composed, first, of small forms allied to *dubius*, forming the *Conipinus* group, inhabiting southern California; second, the *productus* group, including two distinct divisions represented by *productus* and *difficilis*, depending upon bodily form and character of the elytral sculpture, very satisfactorily connected by *compositus*, which has the parallel form, very coarse elytral punctures and rugose surface of *difficilis* and the longitudinal impunctate lines and considerable sexual divergence characterizing *productus*, *explanatus* and *vicinus;* this second group of the genus also peculiar to the California fauna and extending only slightly into Arizona; thirdly, the last eight species of the table form a distinct group inhabiting the southern Rocky Mountain region, extending into Mexico but never occurring in California. *Secutus*, *politus* and *coquilletti* are unknown to me, but it is inferred

that they are properly placed in the table from such characters as have been published.[1]

Sphæriontis n. gen.

In this genus the epipleuræ have a form intermediate between the unusually narrow type of *Eusattus dubius* and the broader form, with the outer edge deflexed basally, represented by *Eusattus convexus* and allies, being nearly similar to the development occurring in *productus*, though never observable at the sides of the body when viewed dorsally. The fringe of yellow hairs at the apical and basal margins of the prothorax are much more developed than in any other genus, and the sides of the body are more conspicuously ciliate; the femora, also, bristle with longer fulvous hairs. The genus is isolated principally by the very broadly oval form and great convexity of the body, the more widely separated coxæ, even surface of the elytra and the more prolonged outer apical angle of the anterior tibiæ. The large and very broad scutellum sometimes makes a very shallow sutural notch at the base of the elytra, but, as a rule, is invisible, being covered by the base of the pronotum when the latter is tightly closed upon the elytral base, as usual in the Eusatti. The five known species may be defined as follows:—

Prosternal lobe not margined apically, the upper surface more or less shining, the elytral punctures muricate and never more than microsetulose.....2

Prosternal lobe margined continuously about its contour; sculpture and vestiture variable.....3

2 — Form broadly rounded, very convex, rather shining in both sexes, deep black; head finely rugose and opaque, with finer isolated

[1] Since this was written I have had an opportunity to study two of the original cotypes of *coquilletti*, and have received an excellent photograph of the type from the skillful hands of Mr. H. S. Barber, of the National Museum. It appears that the transversality of the bottom of the apical thoracic sinus is by no means so pronounced as might be inferred from the original description and that the species is really closely allied to *agnatus*, from the same zoölogical region. It differs in the more swollen reflexed humeri, causing the width of the elytra at that point to be decidedly greater than that of the prothorax, as mentioned in the description; also in its slightly shorter and broader form, distinctly greater convexity when viewed in profile from the rear, rather less feebly costulate and decidedly more shining elytra, with the muricate punctures more distinct, and finally in the more decidedly explanate sides of the prothorax.

granules posteriorly, the clypeus rather narrowly and deeply sinuate medially, rounded and with minute feeble emargination at the sides, broadly and rather strongly reflexed except at the sinus; prothorax very transverse, gradually though moderately narrowed from base to apex, with evenly arcuate, very finely and feebly beaded sides, the apical sinus broad, subtransverse at the bottom, the angles moderately prominent, rounded, the basal angles posteriorly produced but rather blunt; surface convex, alutaceous, abruptly and rather widely plano-explanate at the sides, almost equally throughout the length, the punctures fine and sparse medially, rather close, strong and setulose laterally, muricate throughout though feebly so medially; elytra about as long as wide, gradually and evenly convexo-declivous posteriorly, the outline evenly rounded from about basal third to the apex, which is very obtusely subogival; surface even, very convex, rather coarsely, moderately closely and strongly muricate, each asperity with a minute posterior puncture, micro-setigerous laterally, the asperities tending sometimes to arrange themselves in transverse irregular lines; under surface rather hairy, the epipleuræ sparsely punctate and fulvo-pubescent, the abdomen nearly glabrous, finely, sparsely punctulate. Length 10.5–12.0 mm.; width 7.0–7.8 mm. Oregon.....**muricata** Lec.

Form globose, large in size as in *muricata*, posteriorly subacute, black, shining; head less densely rugose than in *muricata*, the prothorax deeply sinuate at each side of the base as usual, the sides margined, the apex and base flavo-ciliate; surface very smooth, finely granulate at the sides; elytra with the granules less elevated than in *muricata* and transversely confluent; epipleuræ very densely and finely punctulate. Length 11.2 mm. California (Colorado Desert).....**dilatata** Lec.

Form nearly as in *muricata*, but very much smaller in size, similar in color, lustre and distribution of the hairs and fringes; head similar but less opaque and less completely rugulose, finely but strongly punctato-granulose, densely toward the transverse suture, sparsely so elsewhere; prothorax similar throughout, though shorter and even more transverse, nearly three times as wide as the median length, the minute and feeble punctures completely wanting along the middle, finely muricate but sparse laterally, the sides rather less broadly explanate; elytra scarcely as long as wide, similar in form and similarly sculptured though more rugose, very convex and polished (♀) or duller and more flattened medially (♂), at basal third rather broader than the prothorax in the former but not in the latter, where the basal angles of the prothorax are more widely free; under surface nearly similar, the epipleuræ finely, sparsely punctate, with the hairs very short and inconspicuous. Length 8.0–8.5 mm.; width 5.2–5.85 mm. New Mexico.....**acomana** n. sp.

3 — Form oval, convex, black, moderately shining, slightly more

obtuse behind, the margin of the prothorax and the legs ciliate with long yellowish hairs; head sparsely, finely punctate, the clypeus deeply and broadly emarginate, with a moderately deep incisure at each side, the entire front margin reflexed; prothorax more than twice as wide as long, much narrowed in front, the sides arcuate, the side margin explanate, the hind angles slightly prolonged but not acutely; surface smooth, with a few fine piliferous punctures near the sides; elytra with minute, sparse, submuricate granules, each with a short hair, the interspaces very minutely alutaceous; epipleuræ gradually wider from apex to base, sparsely punctate and ciliate; prosternum sparsely punctate, ciliate with yellow hairs, the tip of the process narrowly oval; abdomen very sparsely, finely punctate; legs ciliate with moderately long yellowish hairs. Length 11.5 mm. Lower California (Big Canyon, Tantilles Mts.)..... ..... **ciliata** Horn

Form more oblong than in *muricata*, very much smaller in size and more pointed behind, the sides arcuately converging from about the middle of the elytra, similarly very convex, black; head similarly sinuate laterally, feebly emarginate and apically reflexed, the surface subopaque, finely, sparsely and muricately punctate, each puncture with a small decumbent yellow hair, the punctures broadly wanting along the middle, narrowly so anteriorly; prothorax less transverse, barely two and one-half times as wide as the median length, evenly though much less strongly narrowed from base to apex than in any other species, the sides evenly and feebly arcuate, finely beaded, similarly but rather less broadly explanate, the apex more circularly emarginate, the angles similarly bluntly rounded, the basal produced, slightly less than right and not blunt; surface alutaceous, impunctate except near the sides and narrowly along the basal margin, where the punctures are rather sparse but distinct and muricate, each bearing a small yellow hair; elytra as long as wide with rounded sides, before the middle rather wider than the prothorax, convex, densely opaque though even, not very coarsely, rather sparsely punctate, the punctures but feebly muricate, each bearing a small and very coarse, decumbent fulvous hair; under surface more glabrous than usual, shining, the epipleuræ finely, sparsely punctate, subglabrous and polished; tarsi very slender; antennæ only moderately developed as usual in this genus. Length 7.6 mm.; width 4.6 mm. Texas (Sta. Rosa),—H. F. Wickham...**puberula** Lec.

The species defined above, by compilation of the descriptions of LeConte and Horn, under the name *dilatata*, appears to have been wrongfully reduced to synonymy, the densely punctulate epipleuræ and more or less confluent granules of the elytra amply distinguishing it from *muricata*, aside from its radically different habitat. *Puberula* is identified from description only, but the specimen here described is probably typical; it repre-

sents a very distinct group in the genus because of the more oblong form of the body and different outline of the prothorax, as well as by reason of its opaque elytra, with pubiferous and barely muricate punctures. The species described by Dr. Horn under the name *Eusattus ciliatus* belongs without much doubt to this genus and is defined above from published characters.

Coniontides n. gen.

So far as known, this group of the true Coniontes is confined to the islands off the coast of southern California; it is allied closely to *Coniontis* but has a very different facies due to the marked prolongation backward of the thoracic angles, recalling the Eusatti, and in every way similar to the form there prevailing. There are no other very radical differences that I have observed, excepting the more elongate maxillary palpi and the apically more strongly narrowed and more deeply and circularly sinuate apex of the prothorax, which, with the prolonged basal angles, gives the few species thus far discovered a decidedly peculiar habitus. The four species known to me may be distinguished as follows: —

Form broadly oblong-oval, moderately and evenly convex. Piceous-black in color, rather more reddish beneath, the legs evidently rufous, the antennæ dark piceous, shining, the elytra alutaceous, glabrous; head small, strongly though rather sparsely punctured, prominent at the sides before the eyes; antennæ long and very slender; prothorax fully four-fifths wider than long, the sides broadly rounded and parallel in basal third, gradually strongly converging and straighter thence to the right and narrowly rounded apical angles, the basal angles slightly blunt at tip; base deeply sinuate laterally; surface convex, evenly so to the fine marginal bead, rather coarsely, deeply, moderately closely and evenly punctured throughout from side to side; scutellum somewhat punctate, shining; elytra a fourth longer than wide, equal in width to the prothorax, the sides parallel and straight, arcuately converging behind the middle to the broadly ogival apex, evenly convex, with narrowly reflexed margins, the surface rather strongly, moderately closely punctate discally, though less coarsely so than the pronotum, the punctures becoming smaller and more shallow though similarly separated laterally; under surface with short, sparse and decumbent hairs, the prosternal process broadly and obtusely rounded at tip, not margined and rather finely though strongly, sparsely punctate. Length 11.3 mm.; width 5.9 mm. Island of San Clemente.....**latus** Lec.

Form much more narrowly oval.....2

2 — Body elongate-oval, shining, the elytra only faintly alutaceous, black, the legs piceous-black, glabrous; head only moderately small, finely, sparsely punctate, the sides before the eyes not evidently more prominent than the posterior canthus and very much less so than in *latus;* antennæ shorter and much thicker; prothorax much less transverse, about two-fifths wider than long, the sides evenly converging, evenly and feebly arcuate from base to apex, the latter two-thirds as wide as the base, with the angles only very narrowly rounded, the basal slightly blunt at tip; surface evenly convex, finely, rather sparsely and equidistantly punctate throughout, rather less finely toward the sides, the lateral bead very fine; scutellum broadly triangular, polished, slightly punctulate toward tip; elytra fully two-fifths longer than wide, otherwise nearly as in *latus*, except that the rather sparse punctures are much finer and subequal to those of the prothorax medially, though becoming much finer but not at all closer laterally; under surface with much more minute and scarcely observable hairs, the very obtuse prosternal process similarly unmargined. Length 10.1 mm.; width 5.0 mm. Exact habitat unrecorded.
finitimus n. sp.

Body nearly similar but noticeably cuneiform posteriorly, glabrous, shining throughout above, the elytra not duller, piceous-black, the elytra, under surface and legs rufescent; head very small, strongly, rather closely punctate, less prominent at the sides than in *latus* but more so than in *finitimus*, noticeably more so than the posterior canthus; prothorax more transverse, rather more than one-half wider than long, the sides subevenly and strongly converging from base to apex and evenly arcuate, more strongly so than in *finitimus*, the angles nearly similar, the apex barely three-fifths as wide as the base; punctures only slightly less coarse and close than in *latus*, stronger than in *finitimus*, even in size and spacing throughout; elytra fully two-fifths longer than wide, at base equal in width to the prothorax, the sides thence feebly converging and just visibly arcuate to about apical two-fifths, becoming gradually thence strongly arcuato-convergent to the more narrowly ogival tip, the punctures very fine, rather sparse and evenly distributed throughout, minute laterally, very much smaller than those of the pronotum, the contrast being much greater than in either of the preceding species; under surface finely, sparsely punctulate and just visibly micro-setigerous, the prosternal process less obtuse but wholly unmargined. Length 9.9 mm.; width 4.6 mm. Island of Sta. Cruz.....**insularis** Csy.

Body somewhat cuneiform behind the prothorax, almost as in *insularis* throughout, except that the prothorax is shorter and more transverse and the punctures, especially those of the elytra, much more close-set, deep black throughout, the legs piceo-rufous distally; head nearly as small as in *insularis*, evenly convex, similarly

evenly punctate and apically sinuate but having the sides before the eyes much more prominent and very much more so than the posterior canthus; prothorax two-thirds wider than long, the sides evenly converging and broadly, evenly arcuate from base to apex, more strongly so than in *insularis*, the apex narrower, not more than half as wide as the base, the punctures not quite so large and a little closer, the hind angles not quite so acute; scutellum somewhat smaller and less broadly triangular; elytra formed almost exactly as in *insularis* but less shining, more uneven and with the punctures not quite so small though distinctly smaller than those of the prothorax and much denser than in *insularis*, similarly finer and feeble laterally; prosternal process moderate, rounded at tip, spatulate, finely and sparsely punctate; basal joint of the hind tarsi longer than in *insularis*, being distinctly longer than the remaining joints combined. Length 9.5–9.8 mm.; width 4.3–4.8 mm. Island of San Clemente...**clementinus** n. sp.

It is my impression that the type of *finitimus* was taken on the island of Sta. Rosa, though this is little better than a surmise; it differs notably from *insularis* in form and punctuation. *Insularis* is not properly a variety of *latus* as originally described.

Coniontis Esch.

This genus, by far the most extensive of the Coniontinæ, is essentially peculiar to the Pacific coast of temperate North America, extending to the eastward in the more northern latitudes and thence southward along the Rocky Mountains to southern Colorado. It has not yet been reported from northwestern Mexico and I have seen not a single example from New Mexico and but one from Arizona, probably collected in the extreme western part; it appears to occur also on some of the islands off the southern California coast, although probably as a comparatively recent migrant. The body is oblong to oblong-oval in form, convex, stout to elongate, strongly punctured to almost smooth and glabrous to rather conspicuously setose. The basal margin of the prothorax is never more than feebly bisinuate, and the basal angles are always very much less prominent posteriorly than in the preceding genus or the Eusatti. The male is generally much smaller, less dilated and occasionally somewhat more posteriorly attenuated than the female, but does not differ much otherwise.

There is probably no group of Coleoptera that to the system-

atist has been more of a "bête noire," figuratively as well as literally, than the genus *Coniontis*. This has arisen in great measure from the preposterous extent of variation assumed to affect the species, which for this reason, have been usually considered to be virtually undefinable. I concluded therefore to test this variability by carefully collecting series of what were indubitably single species, in each case from one isolated environment, and studying them carefully specimen by specimen. The result of this study shows that the various forms, whether species or subspecies, do not go beyond the average of the Coleoptera in point of intraspecific plasticity, but are unusually subject to modification and consequent division into closely allied forms by local conditions, which will account for the conclusions formerly drawn from study of miscellaneous material. The genus, being distributed over a greatly extended and climatically varied geographic region, is naturally composed of very numerous forms which are structurally but slightly diversified, — the usual condition in wingless and feebly migratory genera of Coleoptera, — and, although perhaps more conventionally distinguishable in the majority of cases as subspecies, varieties, aberrations, anomalies and monstrosities of the German school, I feel unable with the material at hand to make these assignments satisfactorily and therefore announce them as species for the present. The genus may be divided primarily into the three following subgenera: —

Metasternum flat, margined anteriorly; elytra always much longer than wide 2

Metasternum longitudinally convex, declivous anteriorly, not margined; elytra as wide as long 3

2 — Basal joint of the anterior tarsi stout, shorter, obliquely obtriangular; third palpal joint distinctly though not very greatly shorter than the fourth; mesosternum between the coxæ narrow, deeply impressed on its anterior slope; eyes very short, strongly transverse and reniform; body more or less strongly convex.

Coniontis

Basal joint of the anterior tarsi slender and more elongate, not triangular; third palpal joint very much shorter than the last, the latter unusually elongate; mesosternum a little wider between the coxæ, more feebly impressed on its anterior slope; eyes much less transverse, suboval, only feebly sinuate anteriorly; body very small, subdepressed, elongate-oval, the legs and antennæ longer than usual.

Crypticomorpha

3 — Body extremely short and convex, small in size, the eyes, mesosternum and basal joint of the anterior tarsi nearly as in typical *Coniontis*, the legs, and especially the antennæ, shorter and stouter, the last antennal joint relatively more developed; maxillary palpi with the third joint relatively somewhat more abbreviated though not so notably so as in the preceding section.....**Brachyontis**

These divisions are extremely unequal in extent, the last two being known at present by but a single species each.

Coniontis in sp.

For convenience the various components of this division may be assigned to eight groups, defined on broad lines of general facies as follows: —

Punctuation of the upper surface more or less sparse, fine and inconspicuous.....2

Punctuation conspicuous, especially that of the elytra which is generally very coarse.....5

2 — Body oblong, never much more than twice as long as wide.....3

Body elongate, much more than twice as long as wide.....4

3 — Body large in size..... I (*abdominalis*)

Body small in size.....II (*opaca*)

4 — Body parallel in form in both sexes.....III (*viatica*)

Body more or less distinctly cuneiform in both sexes but particularly in the male.....IV (*cuneata*)

5 — Body decidedly more than twice as long as wide, oblong.....6

Body shorter and generally more oval, never much more than twice as long as wide.....8

6 — Form subdepressed or much less convex than usual, the punctures bearing each a more or less elongate, subdecumbent and very evident hair.....V (*subpubescens*)

Form normally convex.....7

7 — Punctures of the elytra moderate, bearing each a stiff erect and sometimes very conspicuous seta.....VI (*setosa*)

Punctures generally larger and more conspicuous, nude or bearing each a small inclined and less conspicuous coarse hair, the elytral sculpture more or less rugose.....VII (*eschscholtzi*)

8 — Elytral punctures never conspicuously setose, usually completely nude, very variable in size, the sculpture varying from comparatively smooth to extremely rugose.....VIII (*ovalis*)

These groups also correspond fairly well with geographic distribution.

Group I. — Type *abdominalis*.

This group comprises the largest species of the genus; they are oblong-suboval in form, very convex, generally sparsely and feebly punctured above, variably so beneath and are peculiar to the southern coast regions of California, but few occurring at any great distance inland. Whenever the locality of the individual species is more accurately known it will be mentioned after the respective descriptions, the exact locality of many being unrecorded; they are, as known to me at the present time, some seventeen in number, as follows: —

Abdomen more or less closely and strongly punctured and rugulose, at least at the middle of the basal segment; prosternum strongly punctured, the process margined throughout; body glabrous.....2

Abdomen very finely, sparsely punctured and smooth throughout, even at the middle of the basal segment..... 9

2 — Elytral punctures strong and distinct though rather sparse.....3

Elytral punctures equally sparse, smaller and especially shallower and much less evident.....8

3 — Elytral surface even in convexity or having each about three feebly suberoded impressed lines 4

Elytral surface very rugose, each elytron with about six more close-set, very irregular and subcostuliform lines of slight elevation.....7

4 — Prothorax transverse, evidently more than one-half wider than long and apparently a little wider than the elytra in both sexes, the sides more inflated and rounded than usual though similarly rounding and converging anteriorly. Head and pronotum alutaceous, the elytra and under surface shining, the head strongly and rather closely punctured, the surface feebly impressed at the apical lobes, the anterior canthus of the eyes obtuse and equally prominent with the posterior; prothorax rather finely but strongly, sparsely punctate medially, more closely and decidedly coarsely laterally, the margin narrowly but strongly reflexed; elytra barely one-half longer than wide, parallel, obtuse behind, with the margins rather abruptly and strongly reflexed, the surface feebly rugose, strongly so at the apex, the punctures unusually coarse for this section but sparse; prosternum densely and the abdomen sparsely, coarsely punctured and rugose. Length 15.0–17.0 mm.; width 7.3–8.0 mm. Near Monterey. [Fort Tejon, — LeConte].
abdominalis Lec

Prothorax about one-half wider than long, not inflated and not at all wider than the elytra; abdomen more finely, sparsely punctate and rugulose only medially or toward the abdominal process at base 5

5 — Sides of the prothorax almost evenly converging and evenly, very distinctly arcuate from base to apex, the latter rather narrowly, deeply and circularly emarginate, three-fifths as wide as the base, with the angles unusually broadly rounded. Body smaller and less dilated than in *abdominalis*, similarly deep black, alutaceous, the elytra less strongly so; head similar though finely and sparsely punctate; prothorax very minutely, sparsely punctate, still rather finely and sparsely but more distinctly toward the sides, the margin moderately elevated; elytra similar though rather more pointed behind, the surface moderately rugose, strongly so near the tip, the sides similarly reflexed, the punctures sparse, less coarse or deep but distinct; prosternum closely and strongly punctured, more finely and sparsely anteriorly, the abdomen distinctly but not very coarsely punctate and with only traces of rugosity even medially throughout the length. Length 13.8 mm.; width 7.0 mm. Los Angeles Co.....**tristis** n. sp.

Sides of the prothorax parallel and straight or very nearly so, converging and rounded anteriorly, the apical angles not rounded though slightly blunt.....6

6 — Form broad, nearly as in *abdominalis*, deep black, rather shining, the head and pronotum barely at all alutaceous, the former rather strongly and closely punctured, not evidently impressed at the apical lobes, the anterior and posterior canthi subequally prominent; prothorax fully one-half wider than long, the sides parallel and straight, becoming more abruptly converging and broadly arcuate only well before the middle, the apex nearly three-fourths as wide as the base, broadly and circularly emarginate, the angles right and with thickened bead, the surface very minutely, sparsely punctate, with a feebly defined impunctate line medially, the punctures becoming rather coarse and closer laterally, the margin narrowly explanate medially, with the bead strongly elevated; elytra as in the preceding species but with the individual apices rounded, more narrowly reflexed at the sides than in *abdominalis*, the punctures only moderate and sparse, each with an extremely minute silvery seta, the surface slightly rugose, strongly so at tip; prosternum not coarsely and decidedly sparsely punctate throughout, the abdomen with the punctures sparse, strong only medially, strongly rugose only near the basal process; tarsi stout. Length 16.0 mm.; width 8.1 mm. Sta. Barbara.....**strenua** n. sp.

Form distinctly less broad, the single female being evidently a little more than twice as long as wide, deep black, rather shining, the anterior parts but feebly alutaceous; head rather sparsely, not very coarsely but strongly punctate, deeply impressed behind each apical lobe and with the margins before the eyes somewhat deplanate, as prominent as the hind canthus; prothorax barely one-half wider than long, the sides evenly and gradually more arcuate and converging anteriorly, becoming parallel and straight only in about basal half, the apex narrower, scarcely more than

three-fifths as wide as the base, deeply and broadly parabolic, the angles slightly obtuse and not thickened; surface similarly punctured and with the side margins almost similarly concave and reflexed; elytra almost similar but with the apical angles not so individually rounded; prosternum with well separated strong punctures and having a densely, rugosely punctured area at the base of the process; abdomen strongly, more closely punctured and rugose medially. Length 16.0 mm.; width 7.8 mm. Near Monterey.. .....**gravis** n. sp.

7 — Form oblong, twice as long as wide, convex, shining, scarcely at all alutaceous anteriorly, deep black, glabrous; head rather finely but perforately, not densely punctate, not at all impressed anteriorly, the anterior canthus rounded, slightly more prominent than the posterior; antennæ slender, joints three to seven much elongated, the eighth thicker but much longer than wide, the ninth a little longer than wide; prothorax nearly three-fifths wider than long, the sides parallel and straight in basal half, then gradually rounded and strongly convergent to the broadly, circularly emarginate apex, which is fully two-thirds as wide as the base, the angles right and bluntly rounded; surface rather finely, sparsely punctured, becoming rather coarsely, more closely and conspicuously so laterally, the side margins concave and reflexed; elytra barely as wide as the prothorax, scarcely one-half longer than wide, parallel, obtuse at tip, the sides concave and reflexed, the surface coarsely and strongly rugose but polished, less rugose toward base as usual; prosternum rather finely but strongly, not very closely punctate, the process very wide, obtuse, transversely convex, less coarsely margined at tip; abdomen strongly but not very coarsely, rather sparsely punctured, very obsoletely rugulose, alutaceous in lustre. Length 15.0 mm.; width 7.3 mm.

rugosa n. sp.

8 — Form oblong, convex, twice as long as wide, deep black, slightly alutaceous throughout; head strongly, rather closely punctured, finely and sparsely basally, the apical sinus rather shallow, broadly rounded, the surface obsoletely impressed behind each apical lobe; anterior canthus narrowly rounded, as prominent as the posterior; prothorax fully one-half wider than long, formed as in *rugosa*, the punctures much more minute, almost invisible and sparse medially, rather sparse and not coarse though distinct laterally, the margin much more narrowly and feebly reflexed, the fine bead strongly elevated; elytra rather less than one-half longer than wide, equal in width to the prothorax, parallel, obtuse at tip, the surface alutaceous, not rugose but with about six very feeble and broadly tumescent lines on each, coming together in some broad rugosity at apex; the punctures shallow and very feeble suturally, deeper, closer and more distinct laterally, the margin deeply concave and narrowly reflexed, each puncture with a very minute silvery seta not projecting beyond its limits; prosternum rather finely, strongly and sparsely punctate; abdomen

nearly smooth, the punctures sparse and fine for this division of the group. Length 13.8 mm.; width 6.9 mm. Sta. Barbara. **tenebrosa** n. sp.

9 — Prosternal process margined throughout as in the preceding section. Body broadly oblong, black, alutaceous, the elytra shining, glabrous; head perfectly flat throughout, not impressed anteriorly, rather finely but strongly and unusually closely punctate, the anterior canthus not more prominent than the posterior; prothorax nearly three-fifths wider than long, as wide as the elytra, the sides parallel in about basal half, very gradually arcuate and more converging anteriorly, very narrowly reflexed and with strong elevated bead, the apex broadly, circularly emarginate, fully two-thirds as wide as the base, the angles obtuse and rather bluntly rounded, the surface minutely, remotely punctate, the punctures still very small and sparse and each bearing a minute hair laterally; scutellum not very broadly triangular; elytra a little less than one-half longer than wide, obtusely angulate at apex, smooth, very feebly rugose apically, each with three extremely obsolescent longitudinal ridges, the punctures very fine and sparse throughout, the sides very finely reflexed; prosternum with moderate, strong and rather close-set punctures; femora somewhat finely but strongly punctate, each puncture with an obvious short decumbent hair; tarsi not very stout. Length 13.8 mm.; width 7.0 mm.....**pectoralis** n. sp.

Prosternal process not at all margined at its apex.....10

10 — Elytra glabrous, the punctures never bearing setæ which project materially beyond their own limits 11

Elytra sparsely pubescent, the hairs stiff, decumbent and small in size but quite obvious.....15

11 — Elytra parallel, with nearly straight sides, obtusely angulate at apex.....12

Elytra somewhat inflated at the middle, wider than the prothorax, with parallel and feebly arcuate sides, the apex more prolonged and acutely angulate than in any other of this group..... ...14

12 — Tarsi decidedly stout, the integuments strongly shining. Head flat, not impressed anteriorly, rather finely, moderately closely punctate, the anterior canthus rather more prominent than the posterior; prothorax transverse, nearly two-thirds wider than long, subparallel basally and gradually rounded and more narrowed apically (♂), or broader, somewhat inflated and with more rounded sides (♀), the margin finely reflexed, the apex broadly emarginate, with more or less blunt apical angles; surface extremely faintly alutaceous, very minutely, remotely punctate, the punctures still very fine, nude and sparse laterally though more distinct; scutellum moderate; elytra scarcely one-half longer than wide, smooth and polished, each having about three fine, very feeble and irregularly sinuous eroded lines, sending out a few still more obsolete vermiculate branches, the punctures extremely

minute and remote throughout, the sides very finely reflexed; prosternum finely, sparsely punctate; abdomen smooth and polished, with extremely minute and remote punctulation throughout. Length 14.6–15.0 mm.; width 7.0–7.25 mm. Southern California ..... **integer** n. sp.

Tarsi moderately slender, the upper surface distinctly alutaceous, the elytra generally somewhat shining 13

13 — Form very stout, convex, oblong, glabrous, alutaceous throughout above, the elytra but little less dull than the anterior parts; head not impressed, rather finely but strongly, closely punctate, the anterior canthus scarcely as prominent as the posterior; prothorax fully three-fifths wider than long, the sides rounding and converging anteriorly, becoming almost straight and parallel in about basal half, very finely reflexed and with elevated bead, the apex broadly, circularly emarginate, two-thirds as wide as the base, the angles obtuse but only slightly rounded; surface very minutely, sparsely punctate, still finely and sparsely though more distinctly so laterally; scutellum moderate, not very broadly triangular; elytra not quite one-half longer than wide, broadly angulate at apex, smooth, feebly undulato-rugose apically, very finely and sparsely punctate, finely and narrowly reflexed at the sides; prosternum finely, rather sparsely punctate, the abdomen minutely, feebly and remotely punctulate. Length 13.0–14.7 mm.; width 6.0–7.0 mm. Cab. Levette ..... **levettei** n. sp.

Form oblong, rather less convex, smaller in size and narrower, the elytra more shining, the body throughout blackish-piceous in color; head nearly similar throughout but more narrowly and deeply sinuate at apex; prothorax similar and likewise very minutely and sparsely punctate, though with the lateral punctures not nude as they virtually are in the preceding species but bearing each a very small hair; scutellum similar; elytra narrower, about one-half longer than wide, the surface similarly smooth and finely, very sparsely punctate but with the punctures less fine and more distinct than in *levettei;* prosternum strongly, somewhat closely but not coarsely punctate, the abdomen very minutely and sparsely. Length 12.7–13.5 mm.; width 6.3–6.6 mm. Cab. Levette.
picescens n. sp.

Form still narrower, convex, the elytra rather shining, deep black, glabrous; head finely, closely and strongly punctate, not impressed anteriorly, the anterior canthus much less prominent than usual and not extending laterally further than the posterior, the eyes less sunken than in the preceding; prothorax nearly similar but rather less transverse, one-half wider than long, the sides finely reflexed, the punctures extremely minute, remote and barely visible, still very fine, sparse and nude but more distinct laterally; scutellum rather small, triangular; elytra about one-half longer than wide, smooth, very obsoletely rugulose posteriorly, sometimes with feeble traces of longitudinal lines of greater convexity,

finely reflexed at the sides, the punctures remote, fine, though much larger and more distinct than in *levettei* and slightly more so than in *picescens;* prosternum finely, rather sparsely punctate, the abdomen minutely and obsolescently so. Length 12.5–13.5 mm.; width 5.8–6.25 mm. Probably San Diego Co.
elliptica Csy.

A — Form and sculpture nearly as in the preceding but narrower, smaller in size and rather less convex, the elytra generally with some excessively obsolete and broadly tumescent lines, deep black, the elytra slightly more shining than in *elliptica*. Length 12.0–12.3 mm.; width 5.4–5.7 mm. Island of Sta. Catalina, — Warren Knaus.....**catalinæ** n. subsp.

14 — Body narrower and more convex than usual, glabrous, deep black, strongly shining throughout; head broadly sinuate at apex, not impressed, finely punctured posteriorly, rather coarsely, densely and subrugosely so anteriorly, the anterior canthus broadly rounded, much more prominent than the posterior; prothorax nearly three-fifths wider than long, the sides straight and parallel, broadly rounding slightly before the middle, converging and less arcuate apically, the apex broady and circularly emarginate, almost three-fourths as wide as the base, with the angles right and slightly blunt; surface very minutely, sparsely punctate, but little less minutely or remotely so laterally, the edge strongly beaded; scutellum but little wider than long, moderate, triangular; elytra rather more than one-half longer than wide, convex, smooth, with three very feeble eroded lines apically, where also there are some coarse creases, very minutely, remotely punctate, the lateral margin finely reflexed; prosternum not closely punctate, strongly and rather finely so anteriorly, very minuetly on the process; abdomen smooth. Length 13.5 mm.; width 6.2 mm. Kern Co.....**lævigata** n. sp.

15 — Form oblong, more parallel, moderately convex, deep black, only slightly alutaceous throughout above, still more shining beneath; head rather finely but strongly, moderately closely and subevenly punctate throughout, deeply and broadly sinuate at apex, the lobes feebly impressed, the anterior canthus very broadly rounded, slightly more prominent than the posterior; prothorax three-fifths wider than long, the sides feebly converging from the base nearly to the apex and slightly arcuate, then gradually more arcuate and convergent to the apex, which is broadly sinuate and two-thirds as wide as the base, the angles right, narrowly rounded; surface minutely, sparsely punctate, gradually rather strongly, deeply and much less sparsely so and micro-pubiferous laterally; scutellum large and broadly triangular, obtuse at tip; elytra as wide as the prothorax, fully one-half longer than wide, the sides straight, with the margin more widely reflexed basally, the apex angulate; surface rather gradually declivous behind, nearly smooth though each with about six very obsolete lines of greater convexity, the apex

feebly undulato-rugose, the punctures fine and remote, more distinct laterally, the fulvescent hairs not at all conspicuous; prosternum more strongly, rather closely punctate, the abdomen smooth, moderately sparsely punctulate. Length 13.8 mm.; width 6.5 mm. Pomona Mts. ....**luctuosa** n. sp.

Form a little shorter, broader and more convex, dull in lustre throughout above, more strongly punctured than in any other species of the group, deep black; head rather coarsely, deeply, not very closely and rather unevenly punctate, not impressed, the anterior canthus rather narrowly rounded and somewhat more prominent than the posterior; prothorax a little wider than the base of the elytra, transverse, fully two-thirds wider than long, the sides subparallel and feebly arcuate, gradually more arcuate and converging anteriorly, the apex broadly sinuate and nearly three-fourths as wide as the base, the angles right and blunt; surface finely but strongly, rather sparsely punctate, gradually coarsely, somewhat closely and very conspicuously so laterally, each puncture with a small hair, the margin strongly beaded, the attendant channel deep also at apex laterally; scutellum moderate, not very transverse, triangular; elytra not quite one-half longer than wide, obtusely angulate at tip, the sides parallel and very feebly arcuate, finely reflexed; surface of each with four feebly tumescent ridges, with intermediate ridges also, though very obsolete, the four ridges very strong on the apical declivity, the punctures sparse, strong and not very fine medially, becoming very coarse, closer and conspicuous laterally, the fulvous hairs distinct; prosternum rather coarsely and closely punctate, the abdomen polished, minutely, sparsely punctulate. Length 13.0 mm.; width 6.7 mm. San Bernardino Mts.....**costulata** n. sp.

Form stout, not more than twice as long as wide, not pubescent, convex, parallel, the integuments above subopaque, the pronotum and elytra very densely, rather coarsely and aciculately punctate, the elytra obscurely tricostate, with the intervals obsoletely reticulate; [abdomen minutely, sparsely punctulate]. Length 15.5 mm. Fort Tejon ....**robusta** Horn

Form oblong, moderately elongate, with the sides feebly arcuate, rather strongly convex, very highly polished, smooth, the vestiture minute, fulvous in color; head rather coarsely and densely punctured, the sides as prominent as the posterior canthus of the eyes, the antennæ slender; prothorax one-half wider than long, the apex nearly two-thirds as wide as the base, the angles rather broadly rounded; base transverse, very feebly sinuate laterally, the angles slightly rounded and not prominent, the sides strongly arcuate anteriorly, feebly so posteriorly; surface very finely punctured, the punctures becoming denser at the sides, the bead strong; elytra at least twice as long as the prothorax, the punctures fine though larger than those of the pronotum, rather sparse, the sides

feebly arcuate; abdomen strongly convex, polished, feebly and sparsely punctate. Length 12.5 mm.; width 6.0 mm. California (Calaveras Co., — at an elevation of 2,300 feet).

sanfordi Blaisd.

The form which I have identified as *abdominalis* displays very little sexual difference in the form of the prothorax, while in *integer* this difference is more pronounced than in any other known species of the genus. In the definition of *robusta*, as given above, I have made use of all the characters published by its author, assuming as the type the specimen numbered "1" (Rev. Ten., p. 296) and abandon the species, represented by an assumed cotype in the LeConte cabinet, described under this name in my previous revision (Col. Not., II, 1890, p. 375). The species represented by this latter specimen undoubtedly has a completely margined prosternal process and may possibly be unconsciously included above, among the forms from *abdominalis* to *rugosa* in the table; it is probable that the process is not apically margined in the true *robusta*, although the author records nothing concerning a character of which he subsequently made constant use in *Eusattus*. The sculpture of *robusta* departs to a very remarkable degree from the usual fine sparse punctures of this first group of the genus, but is suggested in the coarser punctuation of *costulata*, which is a markedly aberrant species. The species described by Blaisdell under the name *sanfordi* (Ent. News, VI, p. 235) probably belongs in this group, although rather discordant in habitat; it is described above from the published characters.

Group II. — Type *opaca*.

The probably even more numerous species of this group, reproduce the general form and sculpture of their more strenuous relatives of the *abdominalis* group, but are always very much smaller in size, including in fact some of the smaller species of the genus. They inhabit also a distinctly different region, being virtually confined to the southern Sierras and adjacent regions, not occurring, so far as known to me, very near the coast; more definite localities when recorded, will be stated below. Those known at present, representing probably but a moderate proportion of all actually existing forms, may be thus distinguished among themselves: —

Prosternal process strongly and unequivocally margined throughout its contour 2

Prosternal process not margined apically..... 7

2 — Elytral punctures rather small and sparse but very distinct 3

Elytral punctures excessively minute, observable with difficulty under a hand lens..... 6

3 — Elytral punctures not sensibly piliferous..... 4

Elytral punctures each with a very small but evident decumbent hair.. 5

4 — Body oblong, only moderately convex, deep black, rather shining throughout; head somewhat finely but strongly, not densely punctate, the lobes very feebly impressed, the anterior canthus very broadly rounded, as prominent as the posterior; prothorax not more than one-half wider than long, the sides just visibly converging and nearly straight to about the middle, then rapidly more rounded, then more strongly converging and but feebly arcuate to the apex, which is nearly three-fourths as wide as the base, circularly sinuate, with the angles right and but slightly blunt; surface very finely, sparsely punctate, becoming much less finely, more closely and rather strongly so laterally, the marginal bead very fine; elytra parallel, not quite one-half longer than wide, as wide as the prothorax, obtusely ogival at tip, nearly smooth, the margins finely reflexed; prosternum rather finely but strongly, somewhat sparsely punctate, the process broad, ogival at tip; abdomen and hind femora finely, rather sparsely punctate. Length 9.6 mm.; width 4.5 mm. Arizona (probably the extreme western part)..... **histrio** n. sp.

Body rather stouter in outline and decidedly more convex, deep black, duller in lustre, feebly alutaceous; head more strongly and closely punctate, not impressed at the apical lobes, the anterior canthus more narrowly rounded, slightly less prominent than the posterior; antennæ similarly slender; prothorax nearly similar but more transverse, fully three-fifths wider than long, much duller, the fine punctures stronger and less sparse medially, becoming much larger, perforate and very close-set laterally; scutellum rather larger and more broadly triangular; elytra scarcely more than two-fifths longer than wide, as wide as the prothorax, very obtuse at tip, the surface feebly undulato-rugose apically, elsewhere nearly smooth but with very obsolete broadly convex lines, the punctures rather stronger and more close-set than in *histrio*, very distinct, although the surface is somewhat dull; prosternum rather sparsely and finely punctate, the process narrower, impressed along its median line, the impression terminating in a deep discal fovea near the apex — perhaps an accidental character; abdomen and hind femora very finely, sparsely punctate, polished. Length 9.5 mm.; width 4.65 mm. San Bernardino Co..... **ancilla** n. sp.

5 — Form stout, rather convex, oblong, deep black, only very feebly alutaceous; head unusually short and transverse, rather coarsely and

closely punctate, much more finely so basally, unimpressed, the anterior canthus somewhat narrowly rounded and very much less prominent than the posterior; antennæ blackish, slender; prothorax fully two-thirds wider than long, the sides broadly rounded and converging anteriorly, becoming nearly straight and parallel from well before the middle to the base, the apex three-fourths as wide as the base, broadly, circularly sinuate, the angles right and but slightly blunt; punctures fine but strong and moderately close-set, becoming still stronger and a little closer, perforate and conspicuous laterally, the marginal bead very fine; scutellum as in *ancilla*, broadly triangular, the elytra also similar in outline, very obtuse behind, the surface nearly smooth, slightly rugulose posteriorly, the punctures sparse but subperforate and very distinct; prosternum unusually finely, sparsely punctate, the process rather wide, circularly rounded at tip, broadly and feebly impressed along its median line; abdomen very minutely, sparsely, the hind femora rather distinctly and less sparsely, punctate. Length 9.4 mm.; width 4.4 mm. California (Lancaster), — Mr. H. F. Wickham. A single female.....**oblonga** n. sp.

6 — Form somewhat elongate, parallel, moderately convex, rather dull and strongly alutaceous, black with a feeble piceous tinge, glabrous, the elytral punctures with very small inconspicuous hairs; head rather finely but strongly, not densely punctate, unimpressed, the anterior canthus rather narrowly rounded, but little less prominent than the posterior; prothorax nearly as in *oblonga* though a little less transverse, fully one-half wider than long, the sides scarcely becoming parallel posteriorly but very feebly converging from the base though less arcuate, the punctures very fine and rather sparse medially, becoming much larger, deep and moderately close-set laterally, the marginal bead very fine; elytra very nearly one-half longer than wide, more gradually and acutely ogival behind than usual, as wide as the prothorax, virtually smooth but unusually opaque throughout, the sparse punctures but slightly evident even laterally; prosternum finely, not densely punctate, the process narrower; abdomen and hind femora finely, more or less sparsely punctate. Length 9.7 mm.; width 4.25 mm. California. A single female.

obsolescens n. sp.

7 — Hind femora finely, more or less sparsely or inconspicuously punctate.....8

Hind and other femora coarsely, closely and very conspicuously punctate.....13

8 — Pronotal punctures not particularly close-set laterally, separated by from three to five times their own diameters.....9

Pronotal punctures small but deep, unusually close laterally, where they are separated by from one to three times their own diameters; punctures throughout with extremely short decumbent hairs...11

9 — Elytral punctures with very evident small decumbent hairs. Body somewhat elongate, parallel, moderately convex, rather dull and alutaceous in lustre, black with a pronounced piceous tinge, the legs frequently rufescent, the antennæ pale throughout and slender; head finely but strongly, rather sparsely punctate, not impressed, the canthi about equally prominent; prothorax nearly three-fifths wider than long, the sides broadly and moderately arcuate and converging anteriorly, becoming very feebly arcuate and but just visibly diverging thence to the base, the apical angles very bluntly rounded; punctures very minute and sparse medially, becoming much larger, deep and distinct though still well separated laterally, the marginal bead very fine; scutellum only moderate in size, broadly triangular; elytra scarcely one-half longer than wide, as wide as the prothorax, parallel, gradually parabolic at apex, virtually smooth though more opaque than the pronotum, the punctures fine, rather sparse, becoming more distinct laterally; prosternum rather strongly, more closely punctate, the abdomen remotely and extremely minutely so, shining. Length 8.1–8.8 mm.; width 3.7–3.9 mm. Southern California.....**pallidicornis** Csy.

Elytral punctures without evident decumbent hairs; size much larger. 10

10 — Form broadly oblong, rather strongly convex, deep black throughout, shining; head finely, sparsely punctate, the apical lobes feebly impressed, the anterior canthus moderately narrowly rounded, fully as prominent as the posterior; antennæ slender, black, with the tip piceous; prothorax transverse, more than three-fourths wider than long, the sides broadly, subevenly arcuate, rather more so and more converging at apex, becoming parallel behind the middle, the apex circularly sinuate, two-thirds as wide as the base, with the angles right and but slightly blunt; punctures sparse and very minute, becoming strong but still rather fine and sparse laterally, the lateral bead very fine; scutellum rather small, but slightly transverse, triangular; elytra as wide as the prothorax, barely two-fifths longer than wide, the sides nearly straight, the tip gradually and rather acutely ogival; surface smooth, rugulose apically, only moderately sparsely punctate, finely so suturally, rather strongly and somewhat coarsely toward the sides, the margin very finely reflexed; prosternum minutely, sparsely punctate, the abdomen and hind femora still more sparsely, minutely and feebly. Length 10.0 mm.; width 4.9 mm. Locality unrecorded but probably southern California.

degener n. sp.

Form relatively less broad, the largest species of the group, convex, black, rather dull in lustre, the elytra subopaque; head somewhat finely, closely punctate, minutely and less closely posteriorly, scarcely impressed at the apical lobes, the anterior canthus very broadly rounded, not quite as prominent as the posterior; pro-

thorax barely one-half wider than long, the sides parallel and straight, becoming broadly rounded before the middle and strongly convergent and less arcuate apically, sinuate as usual at apex, the angles obtuse and bluntly rounded; surface alutaceous, extremely minutely, sparsely punctulate, the punctures becoming more visible but still minute and unusually sparse laterally, the side margins rather strongly channeled and more coarsely beaded than in any other species of the group, recalling the *abdominalis* group somewhat; scutellum moderate; elytra as wide as the prothorax, fully one-half longer than wide, gradually rather acute at apex, the surface with numerous feeble sinuous impressed lines and generally a few broader, irregular and eroded longitudinal lines, the punctures very sparse and minute, still fine and sparse laterally; punctures of the prosternum and abdomen fine and sparse, of the hind femora rather closer, more distinct and somewhat pubiferous. Length 11.0–11.6 mm.; width 5.0–5.1 mm. California ....**verna** n. sp.

11 — Elytra short, barely two-fifths longer than wide, somewhat inflated behind the middle, where they are evidently wider than the prothorax, with the sides broadly arcuate, the apex very obtuse. Body short, strongly convex, not very intense black, dull or subopaque in lustre throughout above; head finely but deeply, not closely punctate, unimpressed, the canthi equally prominent; prothorax transverse, three-fourths wider than long, the sides broadly rounded and converging before, becoming parallel and straight behind, the middle, broadly sinuate at apex, with the angles right and but slightly blunt; punctures medially very minute and rather sparse, less minute and very close-set laterally, the marginal bead very fine; scutellum broadly triangular; elytra smooth, minutely, rather sparsely punctured suturally, much more closely and strongly so laterally though still rather finely, the margin very finely reflexed; prosternum finely but strongly, rather closely punctate, the abdomen minutely, feebly and more sparsely, the hind femora finely and less sparsely. Length 8.4 mm.; width 4.0 mm. California (Owen's Valley). Described from the female..... .....**opaca** Horn

Elytra longer, parallel, never inflated and less obtuse at apex.....12

12 — Form very broadly oblong. Body moderately convex, black, dull and subopaque in lustre; head rather finely and closely, strongly punctate, the apical sinus deep and rather narrow, the apical lobes unimpressed or very obsoletely so, the canthi subequally prominent; prothorax of peculiar form, transverse, fully two-thirds wider than long, the sides rounded and strongly convergent anteriorly, becoming parallel in basal two-thirds and rather deeply and evenly sinuate at each side at about basal fourth, the apical sinus broadly rounded, the angles slightly obtuse, bluntly rounded, the basal angles not pronounced, the lateral sinuses of the base moderate; surface minutely but strongly and

rather closely punctate medially, more strongly and very closely laterally, the marginal bead fine; scutellum rather small; elytra about two-fifths longer than wide, more obtusely ogival at tip than in the two following forms, smooth or with a few very feeble and irregular impressed lines, the punctures minute and sparse suturally, stronger, closer and very distinct laterally; prosternum finely, sparsely punctate, the process wide, convex, broadly arcuato-truncate at tip; abdomen extremely minutely and obsoletely but rather closely punctulate, the hind femora rather distinctly though not closely punctate. Length 9.8 mm.; width 4.7 mm. California (Amedee, Lassen Co.),—H. F. Wickham. Described from a single male specimen.....**lassenica** n. sp.

Form more narrowly oblong-elongate, rather more convex. Body black, dull and strongly alutaceous in lustre; head finely but strongly, not very closely punctate, deeply and rather narrowly sinuate at apex, the lobes flattened, the canthi subequally prominent, the anterior rather narrowly rounded; prothorax less transverse, three-fifths wider than long, the sides more broadly and evenly rounded, more gradually converging anteriorly and becoming parallel and straight only behind the middle, otherwise nearly as in *lassenica*, the basal sinuations very feeble and the inner side of the hind angles scarcely oblique; elytra parallel, as wide as the prothorax, one-half longer than wide, more gradually and acutely ogival at apex, smooth, with some feeble and uneven scratches, very minutely and sparsely punctate suturally, very distinctly and much more closely near the sides, the margin very finely reflexed; prosternum finely but strongly, rather closely punctured and micro-setigerous, the abdomen shining, very minutely, rather sparsely and obsoletely punctulate, the hind femora unusually finely, obsoletely and remotely punctulate. Length 9.8 mm.; width 4.5 mm. Nevada (Reno). A single specimen of undetermined sex taken by the writer on the banks of the Truckee River.....**nevadensis** n. sp.

A — Body very nearly as in *nevadensis* but with the prothorax very slightly less transverse and with the basal sinuations stronger, so that the hind angles project posteriorly for a very short distance, with their inner sides oblique; sculpture similar, the elytra slightly smoother, with the fine punctures near the sides relatively rather less distinct; hind femora notably more strongly and less sparsely punctate and a little more pubescent. Length 9.5 mm.; width 4.5 mm. Nevada (Carson City), — H. F. Wickham .....**carsonica** n. subsp.

13 — Body oblong, parallel, moderately convex, deep black, alutaceous in lustre, the elytra more strongly; minute setæ of the punctures not projecting beyond the limits of the latter; head somewhat coarsely but not very closely punctate, unimpressed at the lobes, the apical sinus rather deep and abruptly formed; anterior canthus rounded, slightly more prominent than the posterior; antennæ rather

slender, black, paler at tip; prothorax fully three-fourths wider than long, wider behind the middle than at base, the sides almos evenly arcuate, slightly more converging anteriorly, the apex very broadly and circularly sinuate, more than three-fourths as wide as the base, the angles barely right and slightly blunt, the hind angles right, not at all blunt; surface rather finely and sparsely but strongly punctate, becoming more closely, unusually coarsely and somewhat irregularly so laterally, the marginal bead fine; scutellum rather small, not strongly transverse, triangular; elytra nearly one-half longer than wide, as wide as the prothorax, the sides straight, the apex gradually narrowed to the obtuse tip; surface smooth, sparsely and rather strongly punctate suturally, somewhat coarsely and less sparsely laterally; prosternum rather strongly punctate, the process sparsely so, unusually declivous apically; abdomen very minutely, feebly and sparsely punctate. Length 9.3 mm.; width 4.25 mm. (♂). California (Barstow).

punctipes Csy.

In the catalogue of the Coleoptera of Baja California, p. 349, Horn cites *pallidicornis* as occurring there, without more definite indication of locality; the identification, moreover, is open to a good deal of doubt, as nearly all the species are very local in habitat. *Verna* has some of the characters of Group I, and is undoubtedly an intermediate form; it has more especially the grooved and narrowly reflexed thoracic side margins of the allies of *abdominalis*, but its much smaller size prompts me to include it with Group II, for convenience of identification; *degener* is likewise aberrant, having some of the characteristics of the *ovalis* group. The type of *lassenica* has, besides, the sinuation of the sides of the prothorax near the base, two oblique impressed discal lines from lateral fourth very near the base to lateral sixth near basal fifth; these lines are observable occasionally in other species of all the groups and seem to be adventitious to some extent but they are bilaterally symmetric.

Group III.—Type *viatica*.

This is one of the largest groups of the genus and the most difficult in the delimitation and definition of specific forms. The group inhabits the coast regions from San Francisco Bay well into Oregon, from which State I have a single species, and but few of its components occur as far to the eastward as the foothills of the Sierras; more definite localities will be mentioned when known. The very small species allied to *puncti-*

collis, form a tolerably distinct section by themselves and have occasionally some unusual modifications of the marginal line of the prothorax. The others, forming the larger part of the group, have a superficial interresemblance which is very confusing, necessitating prolonged and careful study before even attempting to identify them by published characters. In a number of forms it is difficult to say whether the prosternal lobe is margined or not, there being some variability in the character, and, when the margin becomes feeble, as in *opacicollis* and *longicollis*, the surface must be held so as to reflect the light at gradually varying angles in order to recognize the marginal convexity; in others, however, the margin takes the form of a strong convex bead, defined by an unequivocal groove, but the character is not altogether satisfactory.

The forms at present in my cabinet may be known as follows: —

Larger species, never under 10.0 mm. in length 2

Small species, never exceeding 10.0 mm. in length..... 15

2 — Prosternal lobe margined throughout its contour 3

Prosternal lobe margined at the sides but not at apex.....12

3 — Prothorax broadly rounded at the sides, sensibly wider behind the middle than at base. Form parallel, convex, deep black, polished throughout, glabrous; head rather strongly but sparsely punctured, not impressed at the lobes, the anterior canthus slightly less prominent than the posterior; prothorax one-half wider than long, the sides gradually more rounded and converging apically, the apex barely three-fifths as wide as the base, the sinus circularly rounded but not deep, the angles obtusely rounded; surface very finely and remotely punctate, less finely but still sparsely so laterally, the marginal bead rather fine, not at all incurvate at base; scutellum large, broadly triangular; elytra parallel, as wide as the prothorax, rather more than one-half longer than wide, very obtusely rounded at tip, the surface nearly smooth, somewhat finely though strongly, very remotely punctate, but little more coarsely or less sparsely so toward the sides, the margins very finely reflexed; prosternum finely, sparsely punctate, the process strongly grooved and beaded about its entire contour; hind femora rather finely but deeply, sparsely punctate, the abdomen minutely, very remotely. Length 13.5 mm.; width 5.9 mm. California.
rotundicollis n. sp.

Prothorax not conspicuously rounded at the sides, though a little narrower at base than at a short distance before the latter. Form narrower and slightly less convex, parallel, deep black, not so

shining, feebly alutaceous throughout, glabrous; head rather strongly, not very closely punctate, very obsoletely impressed at the apical lobes, the anterior canthus fuller than in the preceding, not quite as prominent as the posterior; prothorax one-half wider than long, the sides broadly and moderately rounding and not very converging anteriorly, subparallel thence to the base and feebly arcuate, the apex much more broadly though moderately sinuate in circular arc, nearly four-fifths as wide as the base, the angles right and but slightly blunt; surface finely, sparsely punctate, more coarsely but still rather sparsely laterally, the marginal bead moderate; elytra similar though less obtuse and more ogival at tip, the surface very feebly undulato-rugulose, with vague traces of two or three elevated lines, remotely punctate, the punctures rather coarse for the present group and closer and still stronger laterally; prosternum finely, rather sparsely punctate, the process margined about its entire contour by a distinct groove and unusually fine but distinct bead; femora and abdomen nearly as in the preceding species. Length 13.2 mm.; width 5.4 mm. Mokelumne Hill, Calaveras Co..... .....**blaisdelli** n. sp.

Prothorax with the sides rounded and converging anteriorly, becoming straight or nearly so and parallel or subparallel thence to the base 4

Prothorax with the sides converging from base to apex; marginal bead of the prosternal process rather fine but strong, generally entire..11

4 — Marginal groove and beading of the prosternal process strong and distinct.....5

Marginal groove and beading very feeble, sometimes observable with difficulty.....8

5 — Sides of the prothorax very gradually more rounding anteriorly, not at all subangulate 6

Sides more or less abruptly rounded or subangulate at or before the middle 7

6 — Prothorax more transverse, about one-half wider than long. Body elongate, moderately convex, rather shining, with short sparse pubescence, especially distinct on the elytra; head rather coarsely, not densely punctate, the lobes scarcely impressed, the transverse suture unusually broadly impressed, the anterior canthus broadly rounded, much less prominent than the posterior; prothorax rather strongly narrowed anteriorly, the sides parallel and nearly straight in basal half, the apex moderately sinuate, but little more than three-fifths as wide as the base, the angles obtuse and blunt; surface very minutely, remotely punctate, somewhat strongly but sparsely so laterally, the marginal bead fine; scutellum moderate; elytra nearly as in *blaisdelli* but more rounded and less angulate at apex, the surface almost smooth, much more finely and very remotely punctate, more strongly but still finely and sparsely so laterally, the edge very finely reflexed; prosternum finely, sparsely punctate, the process very minutely; abdomen and hind femora

finely and sparsely but rather strongly punctate. Length 14.0 mm.; width 5.75 mm. California.....**innocua** n. sp.

Prothorax more elongate, evidently less than one-half wider than long. Body elongate, parallel, convex, deep black, glabrous, polished, the pronotum sometimes feebly alutaceous; head strongly and rather sparsely but not very coarsely punctate, more finely and very sparsely toward base, the lobes broadly rounded, unimpressed, the anterior canthus narrowly rounded, slightly less prominent than the posterior; prothorax with the sides only moderately converging and broadly rounded anteriorly, the apex nearly three-fourths as wide as the base, the circularly rounded sinus moderate in depth, the angles rather obtuse and bluntly rounded; surface minutely, remotely punctate, much more strongly and less sparsely laterally, the marginal bead moderate; scutellum triangular, not very transverse; elytra nearly three-fourths longer than wide, about as wide as the prothorax or slightly less, rather abruptly subangulate at tip, the surface nearly smooth, rather finely, remotely punctate suturally, less remotely and more strongly toward the sides, which are finely reflexed; prosternum rather finely and sparsely punctate, the process with a distinct and entire marginal groove and moderately coarse bead; hind femora and abdomen minutely, very sparsely punctate. Length 12.2–15.0 mm.; width 5.0–6.0 mm. (♂, ♀). Benicia. Collected by the writer in considerable number.....**elongata** Csy.

A — Similar to *elongata* throughout though a little stouter, the anterior canthus fuller and less angulate at the eyes but similarly less prominent than the posterior, the elytra barely more than one-half longer than wide and more obtuse at tip (♀), and the prosternal process broader, with relatively finer marginal bead, its apex similarly circularly rounded. Length 14.8 mm.; width 6.7 mm. California. Cab. Levette...**limatula** n. subsp.

7 — Form relatively rather stout, the largest species of the group, polished throughout, glabrous and deep black above, piceo-rufous beneath; head coarsely, deeply and not densely punctate, the punctures becoming sparse and very minute toward base, the lobes unimpressed, the sinus broad and circularly rounded, the canthi nearly as in *elongata;* prothorax shorter, fully one-half wider than long, the sides subparallel and nearly straight from the base to about apical third, where they are rather strongly rounded, thence strongly converging and almost straight to the angles, which are right and somewhat blunt; apex two-thirds as wide as the base, with the sinus only moderately deep, the base sensibly wider than the base of the elytra; surface very obsoletely ridged along the median line, very minutely, remotely punctate, more distinctly but still sparsely laterally, the marginal bead moderate; scutellum as in *elongata;* elytra evidently more than one-half longer than wide, somewhat gradually acutely ogival at apex, nearly smooth, everywhere finely and very remotely punctate; prosternum finely,

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rather sparsely punctate, the process not very broad, rounded at tip, the marginal bead moderate; abdomen and hind femora minutely, remotely punctate. Length 15.5 mm.; width 6.6 mm. (♀). Mt. Diablo. A single specimen taken by the writer.

obsidiana n. sp.

Form much more slender, more convex, parallel, deep black, the tarsi piceous, glabrous, alutaceous, the elytra polished; head finely, rather sparsely punctate, the sinus shallow and parabolic, the lobes unimpressed, the anterior canthus rounded, much less prominent than the posterior; prothorax short, a little more than one-half wider than long, the sides parallel and straight to slightly before the middle, then broadly rounded, becoming rather strongly convergent and but feebly arcuate thence to the angles, which are obtuse and bluntly rounded, the apex two-thirds as wide as the base, with the circularly rounded sinus shallow; surface sparsely, extremely minutely and feebly punctate, only a little more distinctly punctured and still rather sparsely and very finely so toward the sides, the marginal bead fine; scutellum moderate, transversely and obtusely triangular; elytra relatively very long, as wide as the prothorax and almost three times as long, fully three-fourths longer than wide, the apex rapidly narrowed and obtuse, ogival, the surface nearly smooth, very minutely, remotely punctate throughout; prosternum sparsely, extremely minutely punctate, the process parallel, rounded at tip, strongly margined; hind femora and abdomen very minutely, sparsely punctate. Length 13.0 mm.; width 5.25 mm. California. Cab. Levette.

cylindrica n. sp.

8 — Anterior canthus less prominent than the posterior.....9

Anterior and posterior canthi subequally prominent.....10

9 — Body parallel, moderately convex, black, alutaceous, the elytra less so; punctures bearing very small, decumbent and rather dark hairs; head coarsely, rather closely punctate, more finely toward base, the lobes broadly rounded, thick, unimpressed, the sinus circularly rounded, shallow; anterior canthus rather broadly rounded; prothorax one-half wider than long, the sides parallel and nearly straight, becoming gradually rounded and strongly convergent before the middle, the apex moderately sinuate, two-thirds as wide as the base, the angles obtuse though only slightly blunt; surface sparsely, very finely punctate, gradually not very coarsely but strongly and still rather sparsely so laterally, the lateral bead moderately thick; scutellum moderate, sharply triangular, but slightly transverse; elytra two-thirds longer than wide, gradually and rather acutely ogival at tip, the sides straight and parallel in basal two-thirds; surface nearly smooth, not very finely, very deeply and sparsely punctate, a little less sparsely though not much more coarsely laterally; prosternum finely, sparsely punctate, the process rather wide, constricted at the coxæ, rounded at tip, where the beaded margin becomes subobsolete; hind femora rather finely

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but strongly, sparsely, the abdomen minutely, punctate. Length 12.6 mm.; width 5.5 mm. Lake Co.....**genitiva** Csy.

Body nearly similar but rather more convex, black, densely subopaque, the elytra and under surface shining; punctures without distinct short hairs; head rather finely but strongly, not densely punctate, the sinus rather deep, subparabolic, the lobes not impressed, the anterior canthus more oblique and narrowly rounded; prothorax more transverse and much more narrowed apically, somewhat more than one-half wider than long, the sides broadly rounded, becoming gradually more converging apically and parallel only near the base; apex rather deeply sinuate, only about three-fifths as wide as the base, the angles broadly rounded; surface rather sparsely, very minutely punctate, becoming rather closely and more strongly but still finely so laterally, the marginal bead fine; scutellum large, triangular, very transverse; elytra relatively very elongate, almost three times as long as the prothorax, somewhat parabolically rounded behind, two-thirds longer than wide, the surface nearly smooth, becoming somewhat rugulose apically, finely, sparsely punctate, a little more strongly so laterally; under surface nearly as in the preceding, the femora more minutely and sparsely punctate, the prosternal lobe more narrowly and parabolically rounded at tip. Length 13.0 mm.; width 5.8 mm. Not labeled in Cab. Levette .....**opacicollis** n. sp.

10— Form rather stout, strongly convex, deep black, only moderately shining, glabrous; head rather coarsely but loosely punctate, very minutely so at base, the sinus broad, subevenly rounded, the lobes unimpressed, the anterior canthus broadly rounded; prothorax unusually elongate, about two-fifths wider than long, the sides broadly, rather feebly rounded though a little more converging apically but barely becoming parallel even at base, the apex evenly and moderately sinuate, almost three-fourths as wide as the base, the angles right and but slightly rounded; surface very minutely, sparsely punctate medially, becoming rather coarsely and deeply though not much more closely so toward the sides, the marginal bead rather coarse; scutellum relatively rather small, strongly transverse; elytra but little more than twice as long as the prothorax, parallel and straight at the sides, gradually and arcuately narrowed and ogival in apical two-fifths, three-fifths longer than wide; surface nearly smooth, with a few obsolete eroded lines, very finely, sparsely punctured throughout; prosternum finely, sparsely punctate, the process gradually slightly wider posteriorly, with almost straight sides, its apex broadly rounded, obsoletely reflexed, broadly concave on the disk; hind femora rather finely, remotely punctate. Length 14.0 mm.; width 6.25 mm. A single example, labeled "Texas" but undoubtedly in error and probably from the coast regions north of San Francisco. **longicollis** n. sp

Form more slender and very much smaller in size, convex, black, feebly alutaceous, the elytra and under surface polished, gla-

brous; head finely but deeply, loosely punctate, the sinus broad, moderately deep and subparabolic, the lobes unimpressed, rather narrowly rounded, the anterior canthus rounded; prothorax rather long, perceptibly less than one-half wider than long, the apex moderately sinuate and fully two-thirds as wide as the base, the angles right and rather broadly rounded; sides very moderately, subevenly arcuate throughout, slightly more converging anteriorly but barely becoming parallel even at base; surface rather sparsely punctate throughout, the punctures excessively minute medially and more visible, though still very fine laterally, the marginal bead rather fine; scutellum moderate; elytra evidently more than twice as long as the prothorax, fully three-fifths longer than wide, parallel and straight at the sides, gradually and obtusely ogival behind; surface nearly smooth, with traces of close-set longitudinal costules, very finely, sparsely punctate throughout; prosternum minutely, sparsely punctate, the process but little dilated posteriorly, with its tip rather prolonged and narrowly rounded; abdomen and hind femora minutely, remotely punctate. Length 10.0 mm.; width 4.12 mm. San Francisco. A single male taken by the writer in the suburbs.

timida n. sp.

11 — Body rather small, elongate, strongly convex, deep black, glabrous, rather shining, the pronotum at most very feebly alutaceous; head finely, but strongly, rather sparsely punctate, the sinus rather broad and shallow, the lobes unimpressed; anterior canthus oblique, not broadly rounded, much less prominent than the posterior; prothorax visibly less than one-half wider than long, the sides somewhat strongly converging, subevenly and very feebly arcuate from base to apex, the latter feebly and circularly sinuate, two-thirds as wide as the base, the angles right and bluntly rounded; surface sparsely, extremely minutely punctate, still very finely and rather sparsely, though more distinctly, toward the sides, the lateral bead fine; scutellum moderate; elytra a little more than twice as long as the prothorax, more than one-half longer than wide, parallel, gradually ogival at apex; surface nearly smooth, very finely, remotely punctate, the punctures scarcely less remote or more distinct laterally; prosternum sparsely, very minutely punctulate; hind femora and abdomen remotely punctate, the former somewhat finely but strongly, the latter extremely minutely. Length 10.6–11.2 mm.; width 4.5–4.65 mm. San Francisco. Two male specimens taken by the writer in the suburbs.....**conicicollis** n. sp.

12 — Anterior canthus very oblique, much less prominent than the posterior; sides of the prothorax more or less evidently converging from base to apex.....13

Anterior canthus much fuller and broadly rounded, as prominent as the posterior; punctuation more conspicuous than usual.....14

13 — Form moderately narrow and convex, alutaceous, the elytra less

obviously so and more shining, black throughout, glabrous; head finely but strongly, rather sparsely punctate, the sinus broad and shallow, the obtuse lobes unimpressed; prothorax fully one-half wider than long, the sides broadly arcuate, strongly so and very convergent anteriorly, becoming almost parallel basally, the sinus shallow, two-thirds as wide as the base, the angles much rounded; surface sparsely, extremely minutely punctate, more distinctly though still finely and rather sparsely toward the sides, the bead moderately fine; scutellum moderate, broadly triangular; elytra between two and three times as long as the prothorax, two-thirds longer than wide, gradually ogival at apex; surface not quite smooth, remotely and very finely punctate throughout, but little more closely or distinctly so laterally; prosternum minutely, sparsely punctate, the process margined almost to the tip, which is obtusely rounded, the bead sometimes virtually entire; hind femora and abdomen remotely and minutely punctate. Length 10.5–13.7 mm.; width 4.25–5.4 mm. San Francisco. A moderate series taken by the writer but not received from other sources.

viatica Esch.

Form shorter, broader, more convex longitudinally, much more shining, not alutaceous anteriorly, glabrous, deep black; head rather sparsely, very finely punctate, the apical sinus narrower and rather deeper, the antennæ stouter; prothorax a little more elongate, evidently less than one-half wider than long as a rule, the sides subsimilar though frequently subangulate at the middle, the apical sinus similarly shallow and the angles well rounded; surface polished, very minutely, sparsely punctulate, in general but little less finely so laterally; elytra much less elongate, more obtuse at tip, barely one-half longer than wide, sparsely but less finely and more strongly punctured than in *viatica*, the punctures impressed; prosternum sparsely, very finely punctate, the process broad, obtusely rounded at tip, the marginal bead rather fine, generally extending almost to the apex but in some cases entire; hind femora and abdomen minutely, remotely and scarcely distinctly punctulate. Length 11.5–12.7 mm.; width 4.9–5.8 mm. California. Cab. Levette..... ....**lucidula** n. sp.

Form rather less slender than in *viatica*, larger in size, black, the under surface and legs piceous or rufescent, shining, the anterior parts somewhat alutaceous, glabrous; head very finely, sparsely punctate, the apex rather broadly sinuate in circular arc, the lobes obtusely rounded, not impressed; prothorax barely one-half wider than long, somewhat conical, the sides very feebly and subevenly arcuate from base to apex, becoming parallel only very near the base, the apical sinus shallow, three-fifths as wide as the base, the angles obtuse and moderately rounded; surface sparsely, extremely minutely punctate, more distinctly but still sparsely and very finely so laterally, the marginal bead moderate; elytra about two and a third times as long as the prothorax, parallel, gradually ogival behind; surface nearly smooth, finely,

remotely punctate throughout, more strongly near the sides, the punctures impressed as in the two preceding; prosternum very minutely, sparsely punctate, the process broadly rounded, margined nearly to the apex; hind femora finely but strongly, moderately sparsely punctate, the abdomen minutely, very remotely so. Length 14.2 mm.; width 5.8 mm. Berkeley, Alameda Co. **protensa** n. sp.

14 — Body rather stout for the present group, strongly convex, black throughout, alutaceous, the elytra less so, glabrous; head rather finely and sparsely but strongly punctate, the sinus very broad and somewhat parabolic, the broadly obtuse lobes unimpressed; prothorax rather large, fully one-half wider than long, the sides parallel and nearly straight in about basal half, gradually rounded and strongly converging thence to the angles, which are right and slightly blunt; apical sinus moderately deep, three-fifths as wide as the base, the latter posteriorly obliquely sinuous laterally; surface sparsely, very minutely punctate, becoming more closely and much more strongly, though not coarsely so, laterally, the bead rather strong, the fine but strong groove flexed along the apex to lateral fourth; scutellum broadly and obtusely angulate; elytra two and a third times as long as the prothorax, rather more than one-half longer than wide, parallel, unusually obliquely and gradually narrowed to the narrowly obtuse tip; surface somewhat uneven and irregularly crumpled, the punctures sparse but rather large for this group, impressed as in the preceding; prosternum finely but strongly, sparsely punctate, the process obtuse, with a strong lateral margin not extending behind the coxæ; hind femora rather coarsely, deeply and not very sparsely punctate, the abdomen minutely, remotely so, more strongly and closely on the basal segment. Length 14.8 mm.; width 6.3 mm. California..... **thoracica** n. sp.

Body less stout, elongate, parallel, rather convex, deep black, glabrous, somewhat strongly shining, scarcely alutaceous anteriorly; head rather finely but strongly, unusually densely punctate, the sinus not very broad, rather deeply parabolic, the lobes broadly obtuse, unimpressed; prothorax fully one-half wider than long, a little wider behind the middle than at base, the sides parallel and broadly arcuate, somewhat sinuate toward base, moderately rounding and converging before the middle, the apex with shallow circular sinus, three-fourths as wide as the base, the angles somewhat obtuse but not broadly rounded; surface finely and rather sparsely but distinctly punctate, not very closely though much more strongly and relatively coarsely so laterally, the marginal groove along the beading flexed inward at apex; scutellum not very transverse, sharply triangular; elytra parallel, fully two-thirds longer than wide, the sides more arcuately and less obliquely converging at apex; surface slightly uneven, undulate and with traces of three longitudinal ribs on each apically, the punctures less sparse than usual and much larger though not

coarse, deep and less impressed, still coarser toward the sides; prosternum finely but strongly, sparsely punctate, the process broadly arcuato-truncate at tip, the beaded margin not extending quite to the apex; hind femora rather strongly and distinctly punctate, the abdomen very minutely and remotely punctulate. Length 12.2 mm.; width 5.3 mm. Oregon (Medford),—H. F. Wickham.....**proba** n. sp.

15 — Side margin of the prothorax never more than slightly curved at base..... 16

Side margin inflexed at base, extending along the basal margin.....21

16 — Anterior canthus very full and broadly rounded.....17

Anterior canthus, because of the more oblique and straighter sides of the front, coming to a bluntly rounded point adjoining the eye..20

17 — Upper surface virtually glabrous, the hairs borne by the punctures very minute and inconspicuous.....18

Upper surface evidently clothed sparsely with short and decumbent hairs.....19

18 — Form subcylindric, strongly convex, strongly shining throughout, deep black, the legs and antennæ dark rufous or piceous; head finely but strongly, closely punctate, the sinus broad, moderately shallow, subparabolic, the anterior canthus broadly prominent and but little less so than the posterior; antennæ rather stout, compressed; prothorax two-fifths to three-fifths wider than long, the anterior sinus circular, rather shallow, the sides strongly rounded and converging before, becoming nearly straight and parallel behind, the middle; surface finely but very strongly, distinctly and closely punctate, still more strongly and closely though only a little more coarsely so laterally, the beaded margin extremely fine, curving at base about the hind angles only and then abruptly disappearing; scutellum rather small, but little wider than long, triangular, with the apex obtusely rounded; elytra fully one-half longer than wide, parallel, as wide as the prothorax, the apex obliquely and arcuately narrowed, the extreme tip narrowly obtuse; surface very finely punctate, the punctures close-set in longitudinally lineate areas separated by narrower and comparatively impunctate lines; side margin very finely reflexed; under surface and femora very minutely, sparsely punctulate. Length 8.7–10.0 mm.; width 3.5–4.2 mm. San Francisco Co., — Chas. Fuchs. [Benicia, — Leconte].. .....**puncticollis** Lec.

Form a little shorter and less cylindrical, smaller in size, convex, deep black, with the legs rufo-piceous, the antennæ blackish-piceous; surface less shining, faintly alutaceous; head finely, densely punctate, nearly as in *puncticollis* but with the broadly rounded anterior canthus much less prominent than the posterior; prothorax a little shorter, transverse, with the sides very feebly converging to parallel from the base to the middle and usually nearly straight, then more strongly convergent and moderately arcuate to the right

and rounded apical angles, the sides generally with a distinct subangulation at the middle; apical sinus broad and shallow, two-thirds as wide as the base; surface more minutely and less closely punctate than in the preceding, the punctures however unusually close-set, the fine margin not curved at base so completely about the basal angles; scutellum nearly similar but less obtuse; elytra nearly similar but a little shorter and especially more gradually and acutely ogival posteriorly, the even finer punctures similarly disposed, the subimpunctate lines often irregularly costuliform; under surface and femora minutely, rather sparsely punctate. Length 8.2–9.2 mm.; width 3.2–3.85 mm. San Francisco. Taken in the suburbs by the writer and not known from other sources.....**exigua** n. sp.

Form still shorter, subcylindric, strongly convex, much more obtuse before and behind, deep black, the legs rufo-piceous; upper surface alutaceous; head finely but not very closely punctate, the sinus shallow, the oblique side margins sinuous at the ends of the oblique sutures — an unusual character in this genus, — the frontal parts rufescent as in the two preceding; prothorax rather elongate, evidently less than one-half wider than long, the sides very feebly converging and almost straight from the base nearly to apical third, then rounded and strongly converging but not angulate, the apex broadly and shallowly sinuate, nearly four-fifths as wide as the base, the angles broadly rounded; surface finely but strongly, not very closely and unevenly punctate, becoming a little more strongly and closely so laterally, the marginal bead fine, arcuate at base; scutellum rather small; elytra short, barely one-half longer than wide and but little more than twice as long as the prothorax, parallel, very obtusely ogival at tip; surface with fine but rather strong, moderately close-set punctures disposed as in the preceding, the subimpunctate lines tumescent; under surface finely punctate, the prosternum rather strongly and somewhat closely. Length 7.9 mm.; width 3.5 mm. California. Cab. Levette.
paupercula n. sp.

19 — Body moderately elongate, parallel, convex, deep black, the legs in great part and the antennæ apically rufescent; upper surface smooth and dull, strongly alutaceous; head rather small, very finely, not densely punctate, the sinus rather deep and narrower, the oblique sides straight; anterior canthus about as prominent as the posterior; prothorax short, three-fifths wider than long, the sides subevenly rounded, rather strongly converging anteriorly, becoming parallel in about basal half, the apex barely more than three-fifths as wide as the base, with moderately deep sinus and broadly rounded angles; base almost truncate, with obtuse angles; surface minutely, rather sparsely punctulate, more strongly but still not very closely so laterally, the marginal bead extremely fine, only slightly arcuate at base; scutellum moderate, polished; elytra not quite one-half longer than wide, two and one-half times as long as the prothorax, parallel, gradually moderately acute and ogi-

val in posterior two-fifths; surface very smooth, with barely a trace of tumescent lines, the punctures minute, moderately close in broad lines as in the preceding species; under surface very minutely, remotely punctulate and polished, the prosternum more opaque and minutely, rugosely punctate, the process rather narrow, margined strongly almost to the tip. Length 7.5 mm.; width 3.2 mm. Alameda Co..... .....**microsticta** n. sp.

20 — Form rather stout for the present group and moderately convex, glabrous, shining and only very faintly alutaceous, deep black, the legs rufo-piceous, the antennæ nearly black; head finely but not very closely punctate, the sinus moderate, the anterior canthus much less prominent than the posterior; prothorax formed nearly as in *microsticta* but much less transverse, barely one-half wider than long, the surface finely but strongly, moderately sparsely punctate, becoming still more strongly and rather closely but unevenly so laterally, the marginal bead rather fine, strongly curving about the hind angles; scutellum rather small; elytra barely one-half longer than wide, two and a third times as long as the prothorax and equally wide, the sides straight and parallel, gradually rounding and converging behind the middle, the apex narrowly parabolic; surface with fine but unusually strong, moderately close-set punctures, with the less punctate lines narrower and distinctly tumescent; under surface minutely, sparsely punctate throughout, the prosternal process rather wide, very faintly margined at the sides along the coxæ, its apex unusually deflexed and convex. Length 9.2 mm.; width 3.82 mm. California.

picipes n. sp.

21 — Lateral bead of the prothorax very fine, rounding the hind angles and extending inward along the base for only a short distance. Body rather strongly convex, subcylindric, glabrous, deep black, the legs dark rufous, the antennæ nearly black; surface rather shining though somewhat alutaceous; head rather small, finely, strongly, somewhat closely punctate anteriorly, more finely and sparsely behind the suture, the sinus moderately broad, the anterior canthus moderately full, less prominent than the posterior; prothorax as in *picipes* but rather more rapidly narrowed anteriorly, the angles obtuse but rather less rounded; surface very minutely, rather sparsely punctate, still very finely and rather sparsely so laterally; scutellum small; elytra nearly as in *picipes* but narrower, the surface similar but with the punctures still smaller and feebler; prosternal process narrower, finely though very evidently margined along the coxæ, similarly much deflexed and convex at its apex. Length 7.7 mm.; width 3.35 mm. San Francisco. A single specimen taken by the writer in the suburbs.

inflexula n. sp.

Lateral bead even finer, extending along the basal margin almost to the middle. Body rather more elongate, convex, feebly alutaceous; coloration as in *inflexula*, the upper surface bearing short but

very evident and rather coarse glistening hairs; head unusually small, finely but very strongly, rather closely punctate, the sinus rather narrow, moderately deep, the anterior canthus full and rounded, almost as prominent as the posterior; prothorax barely one-half wider than long, the sides moderately converging and broadly, feebly rounded from base to apex, slightly more converging toward the apex, which is rather deeply sinuate and three-fifths as wide as the base, with the angles right and evidently rounded; surface finely but strongly, rather closely punctate, unusually strongly and closely so toward the sides, with a feeble impression along the sides behind the middle but not attaining the base; scutellum small; elytra as in *inflexula* but still more gradually and arcuately narrowed behind to the rather acutely ogival apex; surface more uneven than usual, with distinct tumescent lines, the punctures less fine or close-set than usual but similarly disposed; under surface nearly similar. Length 8.4 mm.; width 3.6 mm. California. Cab. Levette.

inconspicua n. sp.

In the above series the margining of the prosternal lobe becomes so singularly inconstant as to lose a great deal of its supposed value elsewhere, and the divisions of the table based upon this character are somewhat arbitrary, the prosternal characters only applying to the majority of the representatives of the several species. In *elongata*, for example, the greater number of examples, all females, have an entire beaded margin, but one of the three males in the series has the lobe completely unmargined except toward its base. So again, in *lucidula*, most of the specimens have the apical part of the lobe completely immarginate, while one, not differing otherwise to any noticeable extent, has a strong and entire beaded margin. I had separated a few forms upon this apparently important and certainly most striking character, but was obliged afterward to suppress them.[1] Some years ago Dr. F. E. Blaisdell gave me

[1] These cases are very puzzling and there are some seven or eight still undescribed forms, each represented by from one to three examples, before me, in the neighborhood of *elongata*, *viatica* and *lucidula*, which possess in each case some peculiarity of habitus, sculpture or structure of the prosternal lobe. Although they would seem to represent distinct species or subspecies, the material is far too limited to enable me to form any definite opinion at present, and as three of them are from the same locality as the types of *elongata*, the exact fixation of their taxonomic status is rendered thereby all the more uncertain. I now think that the male example referred to *elongata*, having an unmargined prosternal lobe, mentioned above, will prove to be specifically distinct, as there are some obvious differences in the œdeagus distinguishing it from the adopted

a specimen, taken by him at Mokelumne Hill, and I had been under the impression that it represented the species which he subsequently described as *sanfordi*, but on studying the description of the latter it is impossible to discover a single harmonizing character to bear out the surmise, and I therefore attach to it another name as above; it is the only species of the present group known to me as occurring on the eastern side of the central valley, although the exact locality of a number of the species described in the table is unknown. *Sanfordi*, by its published dimensions, must be included in the *abdominalis* group, where, however, it is wholly isolated as before intimated. The small species of the second section of the table are distinguishable, as a group, by the peculiar segregation of the elytral punctures into broad uneven longitudinal areas lying between the narrower and usually somewhat elevated smooth lines; they might even be considered a distinct group by themselves.

Group IV. — Type *cuneata*.

In reality this group is only a continuation of the preceding, but, as the cuneiform outline of its few known members is a rather striking character common to both sexes, though much more feebly developed in the female, it may therefore be considered distinct for convenience in identification. The three known species are the following: —

Body deep black in color, more or less shining.....2

Body dark piceous in color, dull and densely alutaceous, more southern in habitat.....3

2 — Form cuneate, widest anteriorly, the male shorter and more strongly cuneiform, convex, moderately elongate, highly polished and deep black throughout, glabrous; head somewhat coarsely, moderately closely punctate throughout, the sinus unusually deep, rather narrow, the anterior canthus rather full, rounded, fully as prominent as the posterior; prothorax one-half wider than long, the sides evenly rounded and rather strongly convergent apically,

true male of *elongata*, and some of the others also represent distinct species in all probability, but I will leave this discussion for a future occasion. Perhaps after all, the margination of the prosternal lobe may not be so unstable a character in this group as I surmised on concluding the table of its species, but it should be stated that, under the circumstances, it was deemed best to distinguish by name only those forms markedly isolated in general habitus and therefore assumably having the status of true species or subspecies.

becoming parallel and straighter in about basal half, the apex moderately sinuate in circular arc, two-thirds as wide as the base, the angles right and only narrowly rounded; surface finely and sparsely but distinctly punctate, decidedly coarsely, very deeply and much more closely so toward the sides, the marginal bead rather thick, perfectly straight to the apex of the basal angles; scutellum well developed, transversely triangular; elytra one-half longer than wide (♀) or less (♂), the sides feebly converging from the base and nearly straight almost to apical third, then strongly rounded and converging to the obtusely ogival tip; surface nearly smooth or with a suspicion of broadly tumescent lines, not coarsely but very strongly, sparsely punctured, decidedly more coarsely and less sparsely toward the sides; prosternum minutely, sparsely punctate, polished, the process moderately wide, feebly dilated and rounded apically, with a continuous beaded edge (♂, ♀); hind femora and abdomen finely, remotely punctate. Length 11.0–11.7 mm.; width 5.18–5.3 mm. California (Humboldt Co., — Hoopa Valley) ..... **atronitens** n. sp.

Form nearly similar, smaller in size, convex, glabrous, the legs piceous distally; surface scarcely at all alutaceous; head finely, not densely punctate, the sinus very much broader and relatively shallower than in the preceding, the sides more oblique, the anterior canthus much less prominent than the posterior and coming to an obtuse point at the eye; prothorax shorter, fully three-fifths wider than long, similar in general form, the apex moderately sinuate, fully three-fifths as wide as the base, the angles right and only slightly blunt; surface sparsely, excessively minutely and scarcely visibly punctulate, more visibly but still sparsely and very finely toward the sides, where the bead is finer than in *atronitens* though bordered internally by a broader groove; scutellum somewhat smaller; elytra one-half longer than wide (♂), the sides more converging from the base to apical third than in *atronitens* (♂), straight, more gradually converging and acutely ogival at apex; surface nearly smooth, very sparsely and finely punctate, somewhat more strongly and less remotely toward the sides; prosternum minutely, rather sparsely punctate, the process a little broader, more dilated, convex and obtusely angulate at apex, finely margined and only along the coxæ; hind femora finely but less sparsely punctate, the abdomen excessively minutely, remotely so. Length 10.3 mm.; width 4.6 mm. California (locality unrecorded).... **sparsa** n. sp.

3 — Form broader, less convex, strongly cuneiform; under surface, legs and base and apex of the antennæ rufescent, subglabrous, the setæ extremely minute though visible; head very finely but strongly, evenly and rather closely punctate, the sinus moderately broad and deep, parabolic, the oblique sides rounded evenly from the obtusely pointed canthus at the eye, much less prominent than the posterior, to the apical lobes, which are rather angulate; prothorax fully two-thirds wider than long, the sides evenly round-

ing and converging before basal third, straight and posteriorly converging behind basal third and continuous in direction with the straight and converging sides of the elytra; apex moderately sinuate, nearly two-thirds as wide as the base, the curve of the sinus becoming anteriorly arcuate and confused with the rounded angles laterally; base almost truncate, the sinuses subobsolete; surface sparsely, extremely minutely punctate, more evidently but still finely and very sparsely toward the sides, the bead fine though attended by a distinct narrow internal gutter; scutellum rather small; elytra relatively small, much narrower than the widest part of the prothorax near basal two-fifths of the latter and barely twice as long, gradually rounding and rather acutely ogival behind; surface nearly smooth, very finely, sparsely punctate, but little more closely or coarsely so laterally, where the margins are rather less narrowly reflexed than in the two preceding; prosternum finely but strongly, not very sparsely punctate, the process wide, strongly dilated and obtusely angulate at apex, strongly beaded but only along the coxæ; hind femora rather strongly but sparsely punctate, the abdomen minutely. Length 10.8 mm.; width 5.3 mm. California (San Diego), — G. W. Dunn.

cuneata n. sp.

The last of the above species is one of the more distinct of the genus and differs from the first two, which are northern forms, in being evenly narrowed posteriorly from behind the middle of the prothorax and not solely from the base of the elytra; it is represented in my cabinet by a single male specimen.

Group V. — Type *subpubescens*.

This is probably not a perfectly natural group, as it comprises a few species from nearly all the zoölogical regions of California, differing a good deal among themselves in facies. It is, in general, characterized by a less convex form of body than usual in the genus, although the latter may be stout or as elongate as in *viatica*, but the surface is generally dull and alutaceous and always distinctly, though more or less sparsely, pubescent, with the hairs decumbent and not erect and bristling as in the *setosa* group. In some species, as for example *montana*, the male is distinctly cuneiform as in the *cuneata* group preceding, but I have not noticed this character as pertaining to both sexes as it does there. The elytral punctures are more or less small in size and the surface never so rugose as in the *eschscholtzi* group. The seven species at present known may be differentiated very clearly as follows: —

Body larger, always over 10.0 mm. in length, the head well developed
2

Body small, always much under 10.0 mm. in length, more oblong-oval in form, the head small.....7

2 — Hind femora minutely and remotely punctate.....3

Hind femora coarsely, more closely and conspicuously punctured, at least toward base.....6

3 — Sides of the head before the eyes more or less broadly rounded and as prominent as the posterior canthus or nearly so; body broader in form.....4

Sides more oblique, coming to a more point-like canthus, which is much less prominent than the posterior; body narrower.....5

4 — Body oblong, stout and parallel (♀) or feebly cuneiform and much narrower (♂), moderately convex, strongly alutaceous above, black, the tarsi and antennal apex rufescent; pubescence sparse, long, fulvous in color; head coarsely, very deeply but not densely punctate, the sinus moderate, rather deep, triangular; anterior canthus a little less prominent than the posterior; prothorax transverse, two-thirds wider than long, the sides broadly rounded and converging anteriorly, becoming parallel and straight or feebly arcuate in about basal half; apex moderately sinuate, three-fourths as wide as the base, the angles slightly obtuse but not much rounded; surface very finely and remotely punctate medially, becoming notably coarsely, deeply and much more closely so toward the sides, the marginal bead moderately strong; scutellum well developed, only moderately transverse, evenly triangular; elytra two and one-half times as long as the prothorax, the sides parallel or feebly converging and nearly straight to a little behind the middle, then unusually gradually converging, becoming straight to the acute apex; surface nearly smooth, with some obsolescent irregular grooves, the punctures moderately coarse, deep and very sparse, becoming not much larger but closer laterally; prosternum with moderate, perforate, more close-set punctures, the process convex, margined except at the middle of the apex; abdomen very finely but distinctly, sparsely punctate. Length 10.8–13.0 mm.; width 4.9–6.2 mm. California (Lake Tahoe). Collected only by the writer so far as known.

montana Csy.

Body oblong, still less convex, somewhat piceous-black, the tarsi and entire antennæ ferruginous; upper surface alutaceous, the hairs rather long, more close-set and conspicuous on the elytra than in *montana;* head coarsely, loosely punctate, more finely and more densely on the base of the vertex, the parabolic sinus rather deep, the anterior canthus very broadly rounded, fully as prominent as the posterior; prothorax formed as in *montana* but with the hind angles slightly more posteriorly prominent; surface less finely, more closely and very distinctly punctate medially, becoming coarsely and still more closely so laterally, the lateral bead simi-

lar; scutellum more transversely triangular; elytra parallel and straight at the sides in almost basal two-thirds (♀), more rapidly and arcuately narrowed to the more obtuse tip; surface broadly undulato-rugose, strongly so apically, the punctures rather fine but deep, much more close-set than in *montana*, but little closer though sensibly coarser laterally; prosternum rather coarsely and closely punctate, the process rounded behind, moderately strongly margined throughout; abdomen not very finely, rather sparsely but conspicuously punctate medially, more minutely and remotely laterally. Length 10.8 mm.; width 4.75 mm. (♀). California (Marin Co.). [San José,—LeConte; the original type, 9.2 × 4.3 mm., is probably a male, being smaller and more slender than my female representative; the locality "San Diego" under the original description is an error, a different species being involved].

subpubescens Lec.

5 — Form elongate, very moderately convex, parallel, alutaceous, the elytra more feebly so, deep black; hairs rather short, very sparse, fulvous but less conspicuous than in the two preceding; head rather coarsely, deeply and sparsely punctate, more closely toward the suture, the sinus not very broad, deep and angular; prothorax more elongate, distinctly less than one-half wider than long, the sides parallel and nearly straight fully to apical two-fifths, gradually rounding and converging thence to the apex, which is broadly sinuate and three-fourths as wide as the base, the angles right and only slightly blunt; base rather strongly bisinuate; surface somewhat finely and sparsely but strongly punctate, becoming coarsely, conspicuously and somewhat less sparsely so laterally, the bead moderate, a median line subimpunctate; scutellum moderate; elytra not quite two and one-half times as long as the prothorax, the sides straight and parallel, gradually arcuately converging in apical two-fifths to the rather acutely ogival tip; surface nearly smooth, rugulose apically, sparsely but strongly punctate, more coarsely so laterally and apically; prosternum rather finely but strongly, moderately closely punctate, the process margined throughout; abdomen minutely, rather sparsely punctate. Length 11.25 mm.; width 4.9 mm. California (Hermitage, Mendocino Co.). A single specimen taken by the writer.....**parallela** Csy.

6 — Form, lustre, coloration and pubescence nearly as in *montana* but narrower; head coarsely, deeply, somewhat closely punctate, the sinus rather deep and angulate, not very broad, the anterior canthus rounded and rather full, just visibly less prominent than the posterior; prothorax nearly as in *montana* but not so transverse, three-fifths wider than long, the base more broadly and strongly bisinuate, the punctures medially sparse but not so minute, very distinct, coarse, close and very conspicuous laterally, the bead moderately thick; scutellum rather small, sharply triangular, not much wider than long; elytra more than two and one-half times as long as the prothorax in the apparently female type, the sides

straight and parallel to apical two-fifths, then gradually arcuate and converging to the rather acutely ogival tip; surface nearly as in *montana*, the strong and moderately large punctures less sparse, becoming somewhat close-set and coarse laterally; prosternum rather coarsely but sparsely punctate, the process dilated and rounded behind the coxæ, the marginal bead rather feeble but entire; abdomen rather finely but very distinctly, sparsely punctate; hind femora strongly, conspicuously, evenly but not very closely punctate throughout. Length 12.2 mm.; width 5.2 mm. California. Cab. Levette .....**canonica** n. sp.

Form much broader, more oblong-oval, only moderately convex, deep black, the tarsi and antennæ picescent, the upper surface dull and strongly alutaceous, the hairs rather long, moderately sparse, fulvous and distinct; head strongly, rather sparsely, not very coarsely punctate, the sinus narrow, deeply angular; anterior canthus full and broadly rounded, as prominent as the posterior; prothorax as in *montana* but more narrowed anteriorly, the apex more deeply sinuate and only three-fifths as wide as the base, the base rather more strongly and more broadly sinuate laterally, the punctures and lateral bead nearly as in *canonica;* scutellum as in the latter; elytra shorter, less than one-half longer than wide, the sides parallel and straight to apical two-fifths, then moderately rapidly converging and arcuate to the subparabolic apex; surface smooth, feebly undulato-rugose posteriorly, rather finely but distinctly, sparsely punctate, more coarsely though still not very deeply and but little less sparsely laterally; prosternum strongly, moderately closely punctate, the process feebly dilated and rounded behind the coxæ, convex, the beaded margin obsolescent at apex; hind femora strongly and rather closely punctured toward base but sparsely and less coarsely so thence distally; abdomen finely, feebly and sparsely punctulate. Length 11.7 mm.; width 5.8 mm. California (South Fork of the Kaweah River).

perspicua n. sp.

7 — Body oblong-suboval, moderately convex, dull and alutaceous, rather grayish-black, the legs, antennæ, mouth-parts and clypeus rufescent; pubescence coarse, moderately long, fulvous and distinct though rather sparse; head somewhat coarsely and closely perforato-punctate, the sinus moderately narrow and parabolic, the anterior canthus narrowly rounded, about as prominent as the posterior; prothorax one-half wider than long, the sides broadly rounded, strongly converging apically, becoming nearly parallel toward base, the apex deeply sinuate, barely three-fifths as wide as the base, the angles right and scarcely even blunt, very distinct; surface rather sparsely but strongly punctate, coarsely and less sparsely so laterally, the marginal bead fine, arcuate near the base; scutellum moderate, picescent; elytra about two and a third times as long as the prothorax, rather obtusely ogival with strongly arcuate sides in apical two-fifths, parallel thence to the base; surface nearly smooth, undulato-rugose apically, strongly, somewhat

sparsely punctate, becoming moderately coarsely and rather less sparsely so laterally; under surface and hind femora finely, sparsely punctulate, the prosternum more strongly, with the process unmargined except feebly along the coxæ; tarsi unusually slender. Length 7.0–8.0 mm.; width 3.4–3.9 mm. California (San Diego). Two specimens taken by the author and one subsequently received, the latter having the scutellum much more transversely triangular and the body a little more convex.

parviceps Csy.

Body somewhat less cylindrical, oblong-oval, distinctly more depressed, nearly similar in coloration, lustre and pubescence; head even smaller and less developed than in any other species, less coarsely but strongly, rather closely punctate, the sinus rather broader, the anterior canthus more obliquely pointed, as prominent as the posterior; prothorax much shorter but otherwise nearly similar, two-thirds wider than long, the deep apical sinus parabolic, almost similarly sculptured but not quite so coarsely, the marginal bead fine, arcuate at base; scutellum rather small, similar, only feebly transverse and sharply triangular; elytra about two and one-half times as long as the prothorax, less than one-half longer than wide, more gradually and acutely ogival in apical two-fifths; surface more strongly undulato-rugulose, especially behind, with a medial vaguely eroded line on each, the punctures rather smaller and less sparse than in *parviceps;* prosternum rather strongly, moderately closely punctured, the process strongly margined, obsolescently so around the broadly arcuate apex; hind femora and abdomen finely and rather sparsely but strongly and distinctly punctate. Length 7.8 mm.; width 3.7 mm. California (Poway, San Diego Co.).....**filiola** n. sp.

The last two species of the table form a rather isolated type, peculiar to the Sonoran regions of California.

Group VI. — Type *setosa.*

The following five species form a natural group leading to *eschscholtzi* and allies, having the same rather stout and oblong convex body, but with the elytral sculpture comparatively fine and always less coarse or rugose and the more or less conspicuous vestiture erect and bristling on the elytra; they have a geographic distribution differing greatly from that of the *eschscholtzi* group but coincident with that of the *ovalis* group and may be thus defined: —

Prosternal process not or but feebly dilated behind the coxæ.....2

Prosternal process more constricted at the coxæ and always more or less strongly dilated apically.....5

2 — Elytral vestiture short.....3

Elytral vestiture long, shaggy and very conspicuous.....4

3 — Body rather narrowly oblong or subelongate, convex, deep black, the antennæ black, the legs piceous distally; surface rather shining, the elytral setæ small and not very conspicuous; head well developed, rather finely and sparsely punctate, the sinus rather deep, sharply parabolic, the lobes broady rounded, the anterior canthus angularly rounded, as prominent as the posterior; prothorax transverse, nearly three-fourths wider than long, the sides broadly rounded, more converging anteriorly, becoming almost parallel toward base, the apex moderately sinuate, fully three-fifths as wide as the base, with the angles evidently rounded; surface very finely, sparsely punctate, becoming gradually rather coarsely and closely so laterally, the bead rather fine; scutellum moderate; elytra one-half longer than wide, parallel, very obtusely and broadly, parabolically rounded behind, generally almost smooth but sometimes rugose, with obsolete indications of longitudinal tumescent lines occasionally, strongly, rather closely punctate, more coarsely and still more closely so laterally and also apically, where the surface is more opaque; prosternum finely, rugosely sculptured, the process polished and more sparsely and strongly punctate, strongly margined at the sides but immarginate at tip; hind femora strongly though very sparsely punctate, the abdomen minutely, remotely so, more strongly toward the sides; tarsi slender. Length 10.0–10.3 mm.; width 4.8–5.0 mm. Idaho (Cœur d'Alene). One specimen is labeled "Cal." but probably in error.....**setosa** Csy.

Body somewhat stouter and more abbreviated, deep black, moderately shining, the bristling vestiture distinct, fulvous; head rather coarsely and densely punctured toward the suture, coarsely apically and sparsely and finely from before the eyes to the base, the sinus broad, parabolic, the anterior canthus rather obtusely pointed, much less prominent than the posterior; oblique sides feebly emarginate at the ends of the oblique sutures; prothorax more transverse, nearly four-fifths wider than long, the sides subevenly and moderately arcuate throughout, becoming parallel only near the base; apex broadly sinuate, two-thirds as wide as the base, with the angles right and but slightly blunt; surface finely, sparsely punctate, becoming broadly rather coarsely but not much more closely so toward the sides, the bead rather fine, the base broadly, evenly bisinuate; scutellum rather small, transversely triangular; elytra parallel, very broadly and obtusely rounded in apical third, two-fifths longer than wide, nearly smooth, finely, remotely punctate, more coarsely but shallowly and not much less sparsely so toward the sides, subopaque posteriorly; prosternum rather strongly punctate, the process broad, subparallel, unmargined except finely along the coxæ; hind femora and abdomen rather finely but more or less strongly, sparsely punctate. Length 10.0 mm.; width 5.2 mm. Utah (Clear Lake),— H. F. Wickham.....**obtusa** n. sp.

4 — Form still stouter, oblong-oval, convex, deep black, somewhat alutaceous, the elytra more shining; head rather finely, very sparsely punctate, more closely so near the transverse suture, the sinus moderately broad, deeply subangulate, the anterior canthus full, somewhat less prominent than the posterior; prothorax three-fourths wider than long, the sides very feebly converging and almost straight, or with a feeble ante-basal sinus, from the base about to the middle, then rounding, becoming strongly converging and just visibly arcuate to the apex, which is broadly sinuate and two-thirds as wide as the base, the angles right and rather narrowly rounded; surface very minutely, sparsely punctate, becoming broadly somewhat coarsely but not very closely so laterally; base somewhat more strongly bisinuate than in *obtusa;* scutellum small, transversely triangular; elytra as in *obtusa* but barely a third longer than wide, nearly smooth, subopaque posteriorly, having numerous fine and generally subtransverse, anastomosing creases throughout, the punctures sparse but rather strong, becoming quite close-set and subrugulose or with transversely sublineate extensions laterally; prosternum rather finely but strongly punctate, the process long, the post-coxal part oblong with but feebly arcuate sides and rounded tip, broadly constricted at the coxæ, unmargined except finely along the coxæ; hind femora and abdomen very sparsely punctate. Length 10.8 mm.; width 5.75 mm. Nevada (Carson City),— H. F. Wickham.

lanuginosa n. sp.

5 — Body oblong, deep black, the tarsi piceous; upper surface alutaceous, the elytra more shining though posteriorly opaque, head rather sparsely but somewhat strongly punctured, finely toward base, the sinus nearly as in the preceding, the anterior canthus rather broadly rounded and almost as prominent as the posterior; prothorax two-thirds wider than long, the sides subevenly and moderately arcuate throughout, not quite becoming parallel even at base, the apex rather deeply sinuate, scarcely more than three-fifths as wide as the base, the angles right and very distinct, scarcely at all blunt; surface sparsely, extremely minutely punctate, becoming broadly quite coarsely but scarcely less sparsely so laterally; base rather strongly sinuate near each side; scutellum small; elytra not quite one-half longer than wide, parallel, obliquely and rapidly narrowed in posterior third to the apex, which is much more angulate than in the preceding, the pubescence very conspicuous, fulvous; surface nearly smooth, the anastomosing fine creases only distinct posteriorly, finely, remotely punctate, more strongly and less sparsely so laterally but still comparatively finely; prosternum rather strongly punctate, unmargined except finely along the coxæ; hind femora and abdomen rather finely but unusually distinctly, though remotely, punctate; tarsi moderately slender. Length 10.9–11.5 mm.; width 5.7–5.85 mm. Utah (Marysvale), — H. F. Wickham.

wickhami n. sp.

Body nearly similar in form, rather strongly shining throughout, pale piceo-rufous, the elytra, under surface, legs and antennæ still paler, ferruginous — possibly partially owing to immaturity; — pubescence abundant and conspicuous posteriorly though only moderate in length as in *wickhami;* head somewhat coarsely and closely punctate throughout, the sinus broadly angulate, the lobes rounded, impressed; anterior canthus rather broadly rounded, visibly less prominent than the posterior; prothorax fully three-fourths wider than long, the sides broadly rounded and strongly converging anteriorly, becoming parallel and nearly straight in about basal half, the apex rather shallowly sinuate, fully two-thirds as wide as the base, the angles right and only slightly blunt; surface very finely, rather closely punctate, becoming coarsely and unusually densely so very broadly toward the sides, the bead fine; basal angles slightly prolonged, right; scutellum moderate; elytra one-half longer than wide, the sides gradually converging and broadly, evenly arcuate from slightly behind the middle to the narrowly parabolic apex, nearly smooth, finely, rather sparsely, submuricately punctate, becoming rather coarsely, densely, muricately so, with the punctures transversely subconfluent, laterally; prosternum strongly, closely punctate, the process nearly circular in form behind the very strong intercoxal constriction, unmargined except moderately along the coxæ; femora and abdomen as in *wickhami* but less strongly punctured. Length 11.2 mm.; width 5.4 mm. Washington State ....**pubifera** n. sp.

Wickhami is a larger species than *obtusa*, with much less transverse prothorax and angulate, and not broadly rounded, elytral apex; the posterior part of the elytra in *pubifera* differs again from anything else known in the group, and this is an unusually well differentiated species, in which the pale coloration is in all probability not entirely due to immaturity, a parallel case being *farallonica*, of the following group.

Group VII. — Type *eschscholtzi.*

This is one of the larger groups of the genus, and, at the same time, one of the most restricted in habitat. It occurs exclusively in the coast regions from San Francisco Bay probably through Oregon, being geographically coincident with the *viatica* group; to the northward and eastward of this region it is replaced by the *setosa* and *ovalis* groups, and, to the southward, by the *abdominalis* group. The species are oblong or oblong-suboval, usually strongly convex in form and generally have very coarse and deep elytral punctures, separated by convex interspaces, giving to the surface a more or less pro-

nounced rugosity. Pubescence is frequently noticeable but is always very short, sparse and decumbent and never so conspicuous as in the two preceding groups. The various forms in my collection may be known by the following characters: —

Elytral punctures bearing short decumbent and evident, though more or less inconspicuous hairs 2

Elytral punctures virtually nude or bearing very minute setæ, usually not projecting beyond their limits 17

2 — Larger and strongly convex species, seldom less than 11.0 mm. in length 3

Smaller, less convex species, though rather more convex than in *subpubescens* and allies, never much more than 10.0 mm. in length and generally very much less 13

3 — Species occurring in California, probably in all cases near San Francisco Bay; prosternal process strongly beaded throughout the periphery in all the specimens at hand; anterior canthus fully as prominent as the posterior 4

Species of Oregon; prosternal process margined feebly at the sides but not at apex; anterior canthus less prominent than the posterior 12

4 — Sides of the prothorax rounding and strongly converging anteriorly, becoming parallel and almost straight in about basal half... 5

Sides of the prothorax evenly and moderately or subevenly arcuate from base to apex 10

5 — Clypeal sinus only moderate in width, deep and parabolic..... 6

Clypeal sinus broad, very shallow, evenly rounded in circular arc.... 9

6 — Prosternal process broadly and rather abruptly arcuato-truncate at apex 7

Prosternal process narrower and evenly, semicircularly rounded at apex 8

7 — Form very broadly oblong, deep black, moderately shining, the anterior parts alutaceous; head strongly but somewhat loosely and irregularly punctured, the anterior canthus rounded though not very broadly; antennæ slender, rufescent at tip as usual; prothorax short, nearly four-fifths wider than long, the apex moderately sinuate, two-thirds as wide as the base, the angles somewhat obtuse and well rounded, the base transverse, not medially lobed, becoming very feebly and posteriorly sinuato-oblique laterally; surface finely but strongly, sparsely and somewhat unevenly punctate, gradually quite coarsely and more closely so laterally, the bead coarse and polished; scutellum large, very transversely triangular; elytra barely one-half longer than wide, parallel, the sides very evenly rounded and converging in posterior two-fifths, the apex obtusely ogival; surface very coarsely, moderately closely punctate and rugulose; prosternum strongly but rather sparsely

punctate and with short pubescence, the process wide, subparallel; hind femora rather strongly but sparsely, the abdomen minutely and remotely, punctate. Length 14.2 mm.; width 6.4 mm. (♀). San Francisco Co.,— Chas. Fuchs....**expansa** n. sp.

Form much narrower and relatively more convex, polished throughout and very much more shining, deep black; head rather finely but strongly, moderately closely punctate, the anterior canthus rather narrowly rounded though not at all pointed; prothorax much less transverse, but little more than one-half wider than long, the apex moderately deeply sinuate, nearly two-thirds as wide as the base, the angles obtuse but rather narrowly rounded, the base broadly arcuate medially, just visibly and transversely sinuate laterally; surface finely, rather distinctly but sparsely punctate, rather strongly though not coarsely, sparsely so laterally, the bead moderately thick; elytra of peculiar form, fully one-half longer than wide, the sides gradually evenly arcuate and converging posteriorly to the acutely ogival apex, becoming parallel only toward base, very coarsely but rather sparsely punctured, densely so apically, the surface rugose; prosternum polished, very minutely, remotely and inconspicuously punctate, the process more constricted intercoxally than in *expansa* and with the apical angles more rounded; hind femora and abdomen very finely, sparsely punctate. Length 12.7 mm.; width 5.7 mm. San Francisco. A single specimen taken by the author in the suburbs.....**franciscana** n. sp.

8 — Body very broadly oblong, rather strongly convex, deep black, polished, the anterior parts somewhat alutaceous; head with rather small but strong, moderately close punctures, the anterior canthus rather narrowly rounded; prothorax short, fully three-fourths wider than long, the sides more evenly rounded anteriorly than in *expansa*, the apex similar but with less thickened bead laterally, three-fifths as wide as the base, the latter similarly truncate but less prolonged backward laterally, being very feebly, transversely sinuate toward the sides; surface finely, sparsely punctate, becoming strongly and somewhat coarsely though still sparsely so laterally, the marginal bead rather fine; scutellum smaller, much less transversely triangular; elytra nearly as in *expansa* but with the sides becoming arcuately convergent behind at about basal third and with the apex more acutely ogival, the punctures similarly very coarse and the surface rugose; prosternum very minutely, sparsely and inconspicuously punctate, the process but feebly constricted intercoxally; hind femora and abdomen very finely, remotely punctate. Length 12.4 mm.; width 5.8 mm. Near San Francisco, — G. W. Dunn .....**truncata** n. sp.

Body much narrower and more elongate, parallel, similarly convex, deep black, strongly shining, the anterior parts slightly alutaceous; head similarly though much more sparsely punctate, the anterior canthus more rounded and less oblique; antennæ not very slender, the outer joints not much enlarged; prothorax not more than one-

half wider than long, the anterior sinus moderately shallow, nearly three-fourths as wide as the base, the angles obtusely rounded, the base transverse, just visibly and very broadly bisinuate; surface minutely, very remotely punctate, more strongly but still comparatively finely and sparsely so laterally, the bead rather fine; scutellum moderate, transversely triangular; elytra fully one-half longer then wide, the sides parallel and straight to well behind the middle, then gradually rounded and converging to the rather acutely ogival apex; surface of each with a few remote and feebly tumescent lines, of which one margins the suture, the punctures coarse but unusually sparse, with less convex interspaces, denser and more rugose posteriorly; prosternum sparsely pubescent, finely but rather strongly, sparsely punctate, the process broader than in *truncata*, feebly constricted intercoxally; hind femora and abdomen very finely, remotely punctate. Length 13.0 mm.; width 5.7 mm. (♂). Cab. Levette.....**suturalis** n. sp.

9 — Form moderately stout, convex, alutaceous, the elytra much more shining, deep black; head rather finely and sparsely but strongly punctate, the anterior canthus obliquely and obtusely pointed; antennæ rather slender; prothorax three-fifths wider than long, the apex shallowly sinuate, two-thirds as wide as the base, the angles obtuse and rather broadly rounded, the base very broadly and feebly bisinuate; surface rather sparsely but not very finely, strongly punctate, becoming somewhat coarsely and less sparsely so laterally, the bead moderately fine; scutellum moderate, sharply triangular, not very transverse; elytra one-half longer than wide, the sides gradually rounding and converging from rather before the middle posteriorly, the apex acutely ogival; surface coarsely but not very closely punctate, the interspaces not notably convex, except apically, where they are narrower; prosternum very finely, sparsely punctate, the process almost impunctate and subparallel, broadly rounded at tip; hind femora and abdomen minutely, remotely and very inconspicuously punctate. Length 11.0 mm.; width 4.9 mm. Cab. Levette..... ...**audax** n. sp.

10 — Tarsi unusually slender. Form oblong-oval, rather shining throughout, deep black; head somewhat coarsely punctate, very sparsely posteriorly, moderately closely anteriorly, the sinus not very broad, deeply parabolic; anterior canthus oblique and rather pointed but blunt; prothorax shorter than in the three following, three-fifths wider than long, the apex only very moderately sinuate, three-fifths as wide as the base, with the angles obtusely rounded; sides unusually converging from base to apex, broadly arcuate; base rectilinearly truncate, becoming conspicuously oblique posteriorly at the sides; surface very sparsely but somewhat strongly punctate, more coarsely but still sparsely so laterally, the bead moderately thick, curving strongly at base entirely about the hind angles; scutellum very transversely triangular, rather large; elytra as wide as the prothorax, one-half longer than wide, the sides strongly rounding behind the middle, the apex obtusely ogival;

surface very coarsely punctate and rugulose, the punctures well separated except apically; prosternum finely, sparsely punctate, the process rather wide, only very feebly constricted at the coxæ, semicircularly rounded at apex; hind femora and abdomen very finely, remotely punctate. Length 11.3 mm.; width 5.2 mm. (♂). Precise locality not recorded.....**convergens** n. sp.

Tarsi moderately stout as usual; prothorax less transverse.....11

11 — Form evenly elongate-elliptical, strongly convex, deep black, alutaceous, the elytra polished; head large, nearly half as wide as the prothorax, strongly, rather closely punctate, the sinus only moderately deep and wide, broadly parabolic, the lobes broadly rounded, the anterior canthus narrowly rounded, very prominent, somewhat more so than the posterior; prothorax unusually elongate, less than one-half wider than long, the sides evenly converging from base to apex, evenly and moderately arcuate, the apex shallowly sinuate, fully two-thirds as wide as the base, the angles right and narrowly rounded or blunt, the base broadly, evenly, very feebly bisinuate; surface finely and sparsely but rather strongly punctate, somewhat coarsely and less sparsely so laterally, the bead rather coarse, perfectly straight to the basal angles; scutellum moderate, sharply triangular, not very transverse; elytra less than one-half longer than wide, scarcely more than twice as long as the prothorax, the sides becoming rounded behind the middle, the apex very obtuse from above; surface very declivous posteriorly, very coarsely, moderately closely punctate and rugose; prosternum very finely, sparsely punctate, the process wide, broadly rounded at tip, feebly constricted; hind femora finely but distinctly, remotely, the abdomen minutely, punctate. Length 12.0 mm.; width 5.75 mm. San Francisco. A single specimen, apparently female, from the suburbs, collected by the writer ....**symmetrica** n. sp.

Form somewhat more oblong and scarcely so convex, deep black, polished throughout; head smaller, distinctly less than half as wide as the prothorax, less coarsely, more sparsely punctate, the sinus narrower and deeper, parabolic, the lobes less broadly rounded, the anterior canthus similarly oblique and narrowly rounded and very prominent though not more so than the posterior; prothorax nearly as elongate, barely one-half wider than long, nearly similar but more narrowed from base to apex, the latter similar but only three-fifths as wide as the base, with the angles more broadly rounded, the sides of the base more posteriorly oblique; surface very sparsely, rather finely but strongly punctate, gradually rather coarsely and less sparsely so laterally though becoming dense near the hind angles, the bead similar but rather less coarse; scutellum nearly similar; elytra longer, one-half longer than wide, more ogival at tip from above; surface less declivous posteriorly, a little less coarsely but otherwise similarly punctate and rugose; prosternum minutely, sparsely punctate, the process semicircularly rounded at tip, moderately con-

stricted; hind femora rather coarsely, closely and conspicuously punctured basally, more remotely thence to the apex, the abdomen very minutely and remotely; hind tarsi much shorter than in *symmetrica*. Length 10.8 mm.; width 5.3 mm. (♂). Exact locality unrecorded.....**anxia** n. sp.

Form moderately stout, oblong, convex, alutaceous, the elytra polished, deep black; head not very coarsely but strongly, rather sparsely punctate, the sinus broad, moderately deep, parabolic, the lobes obtuse though rather narrowly rounded, the anterior canthus nearly as in *anxia* but more obtusely rounded; prothorax shorter, a little more than one-half wider than long, the sides subevenly and much more strongly arcuate, becoming parallel near the base, strongly converging anteriorly, the apex shallowly sinuate, fully three-fifths as wide as the base, the angles right and moderately rounded, a good deal deflexed, the base broadly, feebly bisinuate; surface sparsely, very finely punctate, gradually strongly, moderately sparsely to rather closely and coarsely so toward the sides, the bead moderately thick, straight to the base; scutellum as in the two preceding; elytra as in *anxia* though still a little more acutely ogival at apex, the punctures similarly very coarse but well separated and the surface rugose; prosternum similar, the process subparallel (♀), semicircularly rounded at tip; hind femora strongly and conspicuously punctured toward base, the abdomen with small but distinct, sparse punctulation. Length 11.5–13.0 mm.; width 5.4–6.1 mm. Exact locality unrecorded. [Benicia, — LeConte]..... **affinis** Lec.

A — Nearly as in *affinis* but more narrowly elongate-suboval in form, the punctures toward the sides of the prothorax much sparser and less coarse, the sides of the latter less strongly and more unevenly arcuate, being relatively more strongly arcuate apically, the setæ of the elytral punctures altogether inconspicuous except apically, where they are much shorter, passing but little beyond the confines of the punctures; under surface nearly similar, except that the hind femora are minutely, sparsely and inconspicuously punctate throughout. Length 12.0 mm.; width 5.78 mm. (♀). "Cal."..... .....**patruelis** n. subsp.

12 — Body oblong, convex, deep black throughout, the antennæ scarcely even picescent apically, stout; surface feebly alutaceous anteriorly, the elytra more shining; head coarsely but loosely punctate, the sinus wide, rather deep, parabolic, the anterior canthus oblique, subacute, scarcely prominent; prothorax one-half wider than long, the sides rounded and convergent anteriorly, becoming faintly sinuate and parallel in basal three-fifths, the apex shallowly sinuate, two-thirds as wide as the base, the latter broadly and rather strongly bisinuate, the basal angles unusually prolonged posteriorly and rather acute, the anterior obtuse though not very broadly rounded; surface sparsely but strongly punctate, unusually coarsely, moderately closely and somewhat unevenly

so laterally, the bead moderately coarse, not at all curved at base; scutellum moderate, not very transverse, convexly declivous anteriorly; elytra scarcely one-half longer than wide, parallel, the sides rounding rather abruptly near apical third, thence obliquely converging and less arcuate to the ogival apex; surface very coarsely, deeply but not very closely punctate, the interspaces not notably convex, rugose apically; prosternum coarsely, strongly, very closely and conspicuously punctate throughout, pubescent, the process but feebly constricted, strongly rounded at apex; hind femora strongly, closely punctate basally, more sparsely elsewhere, the abdomen not very finely and unusually strongly so. Length 11.0 mm.; width 5.3 mm. (♂). Oregon (Albany), — H. F. Wickham.....**oregona** n. sp.

13 — Base of the prothorax abruptly posteriorly oblique at the sides, the angles obviously prominent posteriorly..... 14

Base of the prothorax broadly, subevenly bisinuate, not abruptly oblique laterally, the angles barely at all prominent posteriorly; antennæ notably slender, the joints much elongated; size very small.....16

14 — Head very sparsely but unevenly punctate. Body oblong-oval, moderately convex, subalutaceous, not very deep black, the legs and antennæ rufescent; pubescence sparse, fulvous; head moderately large, the punctures somewhat coarse, more aggregated near the transverse suture, very sparse elsewhere, the sinus rather narrow, deeply parabolic, the anterior canthus broadly rounded, about as prominent as the posterior; antennæ rather slender, the joints moderately elongate; prothorax one-half wider than long, the sides rounded and converging anteriorly, becoming gradually very feebly arcuate and almost but not quite parallel through basal three-fifths; apex rather shallowly sinuate, almost two-thirds as wide as the base, with the angles right and only slightly blunt; surface rather finely but strongly, remotely and unevenly punctate, with a rather pronounced median impunctate line, gradually rather strongly but still not closely punctate toward the sides, the bead rather fine, not curved at base; scutellum moderate, transversely and sharply triangular; elytra less than one-half longer than wide, rounding at the sides behind the middle, the apex moderately obtusely ogival; surface only moderately coarsely, rather sparsely punctate, strongly rugose posteriorly; prosternum finely but strongly, perforately and not very closely punctate, the process strongly rounded at tip, not margined except feebly toward its base; hind femora very minutely, remotely punctate, the abdomen somewhat more strongly though very finely. Length 10.5 mm.; width 4.75 mm. (♀). "Cal."
extricata n. sp.

Head more closely, subevenly punctate throughout.....15

15 — Form nearly as in *extricata*, somewhat brownish-black, the tarsi and antennæ rufescent; lustre rather shining, the pubescence very obvious, fulvous; head with the sinus moderately wide, not very

deep, broadly parabolic, the anterior canthus oblique, subacute, as prominent as the posterior; antennæ slender, the joints notably elongate; prothorax as in *extricata* but shorter, fully three-fifths wider than long, the punctures similar but much more close-set throughout and without median impunctate line; scutellum similar; elytra as in *extricata* but narrower and more nearly one-half longer than wide, more gradually acute at apex, still less coarsely and more sparsely punctate, similarly rugose posteriorly; prosternum finely but very strongly, moderately closely punctate and puberulent, the process very strongly beaded along the sides to the apex but not around the latter; hind femora excessively minutely and remotely punctulate throughout, the abdomen not very finely though sparsely, strongly and conspicuously punctate. Length 9.5 mm.; width 4.35 mm. (♀). San Francisco Co.

marginata n. sp.

Form narrower and more elongate, moderately convex, alutaceous, the elytra polished, somewhat piceous black, the tarsi piceous and the antennal apex rufous; head moderate in size, strongly, rather closely punctate, sparsely pubescent, the sinus moderately narrow and deep, parabolic, the lobes broadly rounded, the anterior canthus oblique though obtusely rounded, as prominent as the posterior; prothorax three-fifths wider than long, the sides rounding and convergent anteriorly, becoming subparallel and straight or sometimes with a feeble sinus in more than basal half, the apex rather shallowly sinuate, two-thirds as wide as the base, the angles slightly obtuse but only narrowly rounded; surface finely though strongly, only moderately sparsely punctate, strongly but not much more closely toward the sides, the bead not very thick though prominent, slightly curving inward at base; scutellum moderate, transversely triangular; elytra one-half longer than wide and somewhat gradually acutely ogival behind (♀), or two-fifths longer than wide and more obtusely parabolic at apex (♂), rugose posteriorly, the punctures rather coarse and well separated, notably unequal; prosternum finely, sparsely punctate, puberulent, the process rather narrow, somewhat strongly margined to, but scarcely about, the rounded apex (♀), or a little wider and finely margined and only at its base (♂); hind femora and abdomen minutely, sparsely and more or less inconspicuously punctate. Length 7.7–9.0 mm.; width 3.5–4.0 mm. San Francisco. Taken in the suburbs rather plentifully by the writer and also received from the County, collected by Mr. Fuchs.

nemoralis Esch.

Form rather shorter than in *nemoralis*, still smaller in size, similar in coloration and lustre; head rather small, strongly, somewhat closely punctate, the sinus moderately wide and deep, circularly rounded, the anterior canthus oblique, subacute, less prominent than the posterior; antennæ notably thick, the joints only moderately elongate; prothorax large, nearly three-fifths wider than long, the sides broadly arcuate, more strongly so and very con-

vergent anteriorly, slightly wider near the middle than at base, the apex not more than three-fifths as wide as the base, the angles obtuse and broadly rounded, more deflexed than usual; surface very finely, rather sparsely punctate, more strongly but still not coarsely and almost equally sparsely so toward the sides, the bead rather fine, slightly curving at base; scutellum and elytra nearly as in *nemoralis*, the latter scarcely one-half longer than wide, gradually arcuately narrowed behind the middle, the apex ogival, though narrowly obtuse; surface and punctures uneven, nearly as in *nemoralis;* under surface nearly similar. Length 7.25 mm.; width 3.3 mm. "Cal."..... **parva** n. sp.

16 — Body oblong, rather stout, very small in size, similar to the preceding in coloration but more shining, the anterior parts not at all alutaceous; head moderately large, strongly, subevenly but not very closely punctate, the sinus nearly as in *parva*, the anterior canthus much more obtusely rounded and scarcely at all less prominent than the posterior; prothorax fully three-fifths wider than long, nearly as in *nemoralis*, the apex more than two-thirds as wide as the base; surface finely but distinctly, sparsely punctate, more strongly and less sparsely toward the sides, the bead moderate, curving very slightly at base, the basal angles very blunt; scutellum rather small; elytra short, two-fifths longer than wide, otherwise nearly as in *parva* though smoother, rugulose apically, the punctures not coarse but strong, well separated and rather unequally distributed; prosternum finely but strongly, sparsely punctate, the process rather narrow, evenly and strongly convex longitudinally, margined only at base; hind femora and abdomen very minutely, sparsely and inconspicuously punctulate. Length 6.7 mm.; width 3.1 mm. (♂). San Francisco Co.,— Chas. Fuchs..... **minuta** n. sp.

17 — Body deep black in color throughout, inhabiting the mainland exclusively..... 18

Body piceous to pale testaceous in color; habitat insular..... 26

18 — Elytral punctures only moderately coarse, relatively fine for the present group..... 19

Elytral punctures very coarse and generally deep..... 23

19 — Small species, never as much as 10.0 mm. in length..... 20

Larger species never less than 10.0 mm. in length..... 21

20 — Elytra unequally punctate, very remotely so, with the surface nearly smooth, becoming more coarsely and closely with the surface very rugose apically. Body oblong-oval, moderately convex, deep black, the tarsi and antennal base and apex piceo-rufous, very highly polished throughout; head strongly but sparsely punctate, the sinus only moderate in width, deep and parabolic, the anterior canthus obliquely rounded, as prominent as the posterior; antennæ moderately thick; prothorax fully two-thirds wider than long, the sides broadly rounded and converging before the middle, becom-

ing feebly diverging and almost straight thence to the base, the apex shallowly sinuate, three-fifths as wide as the base, the angles right and only slightly blunt; surface rather finely but strongly, remotely punctate, becoming coarsely and much less sparsely so laterally, the bead thick, much thickened apically, curving but little at base; scutellum moderate, transversely triangular; elytra not quite one-half longer than wide, rounded at the sides and narrowed to the obtusely ogival apex in posterior two-fifths, the punctures deep but uneven in size; prosternum strongly, rather closely punctate, the process unmargined except feebly at base; hind femora minutely, sparsely, the abdomen rather strongly, somewhat less sparsely, punctate. Length 9.2 mm.; width 4.25 mm. "Cal." **perpolita** n. sp.

Elytra almost equally and much less sparsely punctate, less smooth though almost similarly rugose behind. Body more elongate, similarly convex, less shining, the anterior parts sometimes faintly alutaceous, deep black, the antennæ and distal parts of the legs picescent or rufous; head strongly but loosely, unequally punctate, the sinus moderately deep, not wide, the anterior canthus obliquely subangulate or obtuse, fully as prominent as the posterior; antennæ moderate; prothorax one-half wider than long, formed as in *perpolita* but less narrowed at the shallowly sinuate apex, the latter two-thirds as wide as the base, the sides of which are more abruptly oblique, with the hind angles not more produced posteriorly but more narrowly and abruptly so; bead not so thick and not thickened apically; punctures much finer and a little closer throughout in the same relative parts of the surface; scutellum and elytra nearly similar, the latter somewhat less rapidly narrowed behind; punctures strong, somewhat uneven, each with a small yellowish-silvery seta, more distinct posteriorly but not sufficiently long to constitute pubescence; under surface similar throughout, except that the abdomen is much more minutely, sparsely punctulate. Length 8.6–9.7 mm.; width 4.0–4.6 mm. (♂, ♀). San Francisco. Two specimens taken by the writer in the suburbs, one example from the County, taken by Mr. Fuchs, and several from the Levette cabinet.....**pudica** n. sp.

21 — Sides of the prothorax subangulate though rounded at the middle. Form oblong-elongate, convex, deep black throughout, alutaceous, the elytra rather strongly shining; head very finely, rather sparsely, subevenly punctulate, the sinus rather small but deep, subangular, the lobes obtuse, the anterior canthus obtuse, very nearly as prominent as the posterior; antennæ moderately thick; prothorax almost four-fifths wider than long, the sides strongly converging though only slightly arcuate anteriorly, parallel and straight in about basal half, the apex moderately sinuate, even less than three-fifths as wide as the base, the angles obtuse but narrowly rounded, the base moderately and rather narrowly, evenly sinuate at each side; surface remotely, very minutely punctulate, with an impunctate medial linear area, the punctures gradually stronger and closer

but still rather small laterally, the bead fine, straight at base; scutellum large, transversely triangular; elytra somewhat more than one-half longer than wide, parallel, rather strongly rounded and narrowed to the ogival apex in barely apical two-fifths, the oblique sides becoming nearly straight, the base not quite as wide as the thoracic base, the surface somewhat uneven, deeply and somewhat finely, densely rugose on the declivity, the punctures small, moderately close-set, coarser posteriorly, the setæ very minute and inconspicuous; prosternum smooth, minutely, sparsely punctate, the process large, much constricted intercoxally, margined throughout; hind femora and abdomen very minutely, sparsely punctulate. Length 12.0 mm.; width 5.68 mm. Locality not recorded but probably from northern California.....**callida** n. sp.

Sides of the prothorax subevenly rounded from base to apex.....22

22 — Body oblong-suboval, rather strongly shining and deep black throughout; head finely, somewhat closely punctate, the sinus moderately wide, rather deeply parabolic, the lobes broadly rounded, the anterior canthus evenly rounded, fully as prominent as the posterior; prothorax almost four-fifths wider than long, the sides broadly rounded and more converging apically, becoming a little less rounded and almost parallel basally, the apex moderately sinuate, two-thirds as wide as the base, with the bead strong laterally, the angles right and moderately rounded; base rather strongly sinuate laterally, broadly lobed; surface very finely, rather sparsely punctate, subimpunctate along the middle, more strongly but not very closely or coarsely laterally, the bead rather fine, not arcuate at base; scutellum small; elytra not quite one-half longer than wide, the sides converging and rounded behind the middle to the acutely ogival apex; surface with two or three narrow faint ridges on each, rather smooth, rugose posteriorly, somewhat finely but strongly, rather sparsely punctate, more coarsely so toward the apex and a little closer laterally; prosternum strongly, somewhat closely punctate, the process minutely and sparsely so, very feebly constricted, rounded at tip and margined throughout, the bead occasionally obsolete apically; hind femora and abdomen minutely, sparsely punctulate, the latter very feebly rugulose. Length 10.0–12.0 mm.; width 4.6–5.75 mm. (♀). Siskiyou Co., — Albert Koebele.....**shastanica** n. sp.

Body larger than in *shastanica*, more broadly oblong and rather less convex, dull in lustre, the elytra rather less pronouncedly deep black; head rather finely, closely and subevenly punctate, the sinus small, very deeply subangulate, the lobes broadly rounded, the anterior canthus rounded but not very broadly, about as prominent as the posterior; antennæ rather thick; prothorax very transverse, slightly less than twice as wide as long, the sides rounded and converging from base to apex, rather more so anteriorly, subparallel toward base, the apex unevenly sinuate, being more transverse medially, two-thirds as wide as the base, the latter broadly,

evenly bisinuate, with the angles rather acute and posteriorly produced, the apical angles moderately rounded, right; surface finely, not very sparsely punctate, becoming strongly and unusually closely so laterally, the bead moderately fine; scutellum rather small, not very transversely triangular; elytra one-half longer than wide, much less gradually rounded and narrowed behind than in *shastanica*, obtusely ogival at tip; surface nearly smooth, with noticeably small and unusually close punctures, but strongly rugose and more coarsely punctate on the declivity, where each puncture has a very minute silvery seta entirely enclosed within it; prosternum nearly as in *shastanica* but with the process more elongate, more constricted, strongly margined except at the rounded apex, which is unmargined; hind femora and abdomen finely, sparsely and inconspicuously punctate. Length 12.3 mm.; width 5.9 mm. Siskiyou Co. (Sisson), — H. F. Wickham.....**conferta** n. sp.

23 — Prothorax large, a little wider than the elytra.....24

Prothorax not at all wider than the elytra.....25

24 — Form oblong-elongate, very convex and strongly shining throughout, very deep black, the elytral punctures with setæ so minute as only to be observed under rather high power; head somewhat finely but strongly, moderately sparsely punctured, the sinus rather wide and shallow, the anterior canthus broadly rounded, even a little more prominent than the posterior; prothorax nearly four-fifths wider than long, the sides subparallel and feebly arcuate, rounding and strongly converging anteriorly, the apex broadly sinuate, three-fifths as wide as the base or a little more (♂), the angles obtuse and rounded; base subtransverse, with the angles but feebly and gradually produced and rounded; surface excessively minutely and remotely punctulate, more visibly but still very finely and remotely so laterally, the sides narrowly explanate and with a rather coarse bead; scutellum rather large, transversely and obtusely triangular; elytra two-thirds longer than wide, straight and parallel at the sides, very gradually narrowed and somewhat acutely produced at apex, nearly smooth, very coarsely and sparsely punctate, more closely so but only slightly rugose on the declivity; prosternal process but feebly constricted, strongly margined at the sides but unmargined at apex; abdomen extremely minutely, remotely punctulate, the hind femora with sparse but rather strong — though small — punctures. Length 11.7–13.5 mm.; width 5.4–6.1 mm. San Francisco. [= *inæqualis* Csy.].
eschscholtzi Mann.

Form narrower, deep black, less shining, the elytral punctures posteriorly each with a very small but more visible seta; head very finely, rather sparsely punctate, the sinus broad but rather deep, parabolic, the lobes less obtuse, the anterior canthus oblique and much less rounded, obtusely subangulate, as prominent as the posterior; prothorax less transverse, nearly three-fourths wider than long, the sides more evenly rounded, gradually more con-

verging anteriorly, becoming parallel and nearly straight toward base, the apex shallowly sinuate, nearly two-thirds as wide as the base, the angles rather deflexed, moderately rounded; base very broadly and feebly bisinuate, the hind angles right, not more than slightly blunt; surface very minutely, not very sparsely punctulate, the punctures becoming decidedly strong and closer but still noticeably fine laterally, the margins not at all reflexed and with a moderately fine bead; scutellum less obtuse though transversely triangular; elytra but little more than one-half longer than wide, the sides broadly, subevenly rounded and converging from near basal third to the more obtusely ogival apex, scarcely visibly narrower than the prothorax; surface coarsely, less sparsely and less strongly punctate, but more densely and more rugose on the declivity; prosternum sparsely and very minutely punctulate, the process unusually short, broadly rounded, very feebly constricted, margined throughout; hind femora and abdomen minutely, sparsely and inconspicuously punctate. Length 10.7 mm.; width 4.9 mm. (♂). "Cal." ..... **pagana** n. sp.

25 — Body oblong-oval, strongly convex, black and moderately shining throughout, the anterior parts slightly alutaceous; head rather coarsely and closely punctured anteriorly, finely and sparsely toward base, the sinus moderately wide, deep, evenly rounded, the anterior canthus obtusely oblique, much more prominent than the posterior; prothorax not more than one-half wider than long, the sides converging and progressively more rounded from base to apex, the latter shallowly emarginate, nearly two-thirds as wide as the base, the angles much deflexed and broadly rounded; base very feebly bisinuate, the angles but slightly projecting; surface extremely minutely, sparsely punctulate, becoming somewhat coarsely but sparsely so toward the sides, the margin not reflexed and not very thickly beaded; scutellum very transversely triangular; elytra visibly less than one-half longer than wide, slightly wider than the prothorax, the sides parallel and nearly straight, arcuately converging at base, rapidly rounded and converging in apical two-fifths, the apex very broadly ogival; surface very coarsely but not closely punctate, rugose, densely and strongly so posteriorly; prosternum minutely, sparsely punctate, the process short, impressed along the middle, rounded at tip, barely at all constricted, very strongly margined throughout; hind femora and abdomen minutely, remotely punctulate. Length 10.5 mm.; width 5.18 mm. (♀). California ..... **inornata** n. sp.

Body oblong-oval, very stout, strongly convex, very deep black and strongly shining throughout, the elytra with very minute and inconspicuous setæ posteriorly; head finely, sparsely punctate, the sinus moderately wide, rather deep and parabolic, the lobes very widely rounded, the anterior canthus obliquely subacute, fully as prominent as the posterior; prothorax three-fifths wider than long, the sides broadly rounded and converging anteriorly, becoming nearly straight and almost parallel in about basal half, the apex

shallowly sinuate, two-thirds as wide as the base, with broadly rounded angles; base very broadly and feebly bisinuate; surface very sparsely, extremely minutely punctulate, becoming more distinctly but still finely, sparsely so laterally, the bead moderate; scutellum transverse, sharply triangular; elytra inflated, very distinctly wider than the prothorax, the sides parallel and broadly arcuate, strongly rounding and converging behind the middle, a little less than one-half longer than wide, the apex ogival; surface almost smooth, moderately rugose posteriorly, the punctures coarse though much less coarse and sparser than in *inornata;* prosternum very minutely, sparsely punctate, the process well developed, moderately constricted, very strongly margined throughout, not impressed; hind femora finely and sparsely but rather strongly punctate, the abdomen extremely minutely, remotely and almost imperceptibly so. Length 11.8 mm.; width 6.0 mm. (♀). California. Cab. Levette.....**congesta** n. sp.

Body oblong-elongate, more parallel and less convex than in the two preceding, rather shining, the elytra with small but visible setæ posteriorly; head rather coarsely, sparsely and unevenly punctate throughout, the sinus moderately wide, rather deeply parabolic, the lobes rounded, the anterior canthus obtusely rounded, more prominent than the posterior; prothorax barely one-half wider than long, the sides converging and feebly arcuate from the base, more strongly near the apex, which is evenly and moderately sinuate and fully three-fifths as wide as the base, the angles deflexed, obtuse and moderately rounded; base broadly, very feebly and evenly bisinuate; surface finely and sparsely though distinctly punctate, becoming rather coarsely and more closely so laterally, the bead moderate; scutellum moderate, not very transverse, obtusely triangular; elytra fully one-half longer than wide, equal in width to the prothorax, the sides parallel, rounding and converging behind the middle to the broadly ogival apex; surface not rugose, moderately coarsely, very sparsely punctate, the punctures coarser and denser, with the surface rugose, on the declivity; prosternum with strong and only moderately sparse punctures, the process less abbreviated than in *inornata*, margined throughout but less strongly, not impressed; hind femora and abdomen finely but rather strongly, sparsely punctate. Length 12.3 mm.; width 5.83. California. Cab. Levette.... ....**agrestis** n. sp.

26 — Form oblong-suboval, strongly convex, shining throughout, the elytra with small hairs only noticeable posteriorly; head very coarsely, more or less densely and unevenly punctate, the sinus moderately wide, rather shallow, the lobes not much rounded, the anterior canthus obtusely rounded, more prominent than the posterior but not more so than the unusually convex eyes; prothorax nearly four-fifths wider than long, the sides converging and nearly straight about to apical third, then strongly rounded and more converging to the apex, which is shallowly sinuate and two-thirds as wide as the base, the latter broadly, feebly bisinuate, the an-

terior angles broadly rounded; surface sparsely but rather coarsely, unevenly punctate medially, becoming unusually coarsely so and less sparsely toward the sides, the bead thick; scutellum moderate, transversely triangular; elytra one-half longer than wide to rather more, rapidly narrowed and with strongly rounding sides in apical two-fifths, the apex broadly ogival; surface with more or less feeble evidence of a few longitudinal costæ, rugose behind, nearly smooth anteriorly, coarsely and more or less closely but unevenly punctate; prosternum strongly, closely punctate, the process rather narrow, moderately constricted, longitudinally convex, rounded at tip, not margined except at the sides toward base; hind femora and abdomen with sparse but unusually strong, even punctures throughout. Length 10.2–12.2 mm.; width 4.75–5.9 mm. Farallon Islands.....**farallonica** Csy.

Some of the species allied to *nemoralis* might almost as naturally fall near *subpubescens* in the preceding group, but the form is a little more convex and the sculpture stronger, giving them on the whole more nearly the general habitus of the present group. There are evidences of some natural geographic subdivisions of this group, *oregona* and *farallonica*, for example, being widely different from each other and from the usual type and the series of northern species from *callida* to *conferta* also hold together very consistently, departing widely in general sculpture from the others. It is quite obvious that the species formerly described by me under the name *inæqualis*, a remarkably isolated form by reason of the sharply acute elytral apex and in having the prothorax wider than the elytra, with narrowly subexplanate sides, is, by reason of the virtual absence of elytral setæ and because of the very feeble punctuation of the anterior parts, the species held by LeConte and Horn to represent the true *eschscholtzi; affinis* is therefore a valid species, being one of a considerable number of more or less closely allied forms as noted above.

Group VIII. — Type *ovalis*.

The rather numerous species falling under this head replace the allies of *eschscholtzi* in the northern Pacific coast and Rocky mountain regions, and are distributed thence southwardly to the eastern foothills in central Colorado, and, to the westward, through Utah to western Nevada, this extended range being nearly coincident with that of the *setosa* group. The body is always

strongly convex, comparatively coarsely sculptured and is more oval than in the *eschscholtzi* group, but otherwise resembles the prevailing form in the latter, except that it is more completely glabrous, no species being known to me having more than very minute setæ virtually wholly enclosed within the punctures; they may be known by the following characters:—

Elytral punctures more or less coarse and very conspicuous, the integuments deep black throughout and strongly shining; habitat near the coast.....2

Elytral punctures smaller and less conspicuous though invariably distinct, the integuments always deep black but frequently alutaceous; habitat further removed from the coast.....6

2 — Sides of the prothorax strongly rounded and converging anteriorly, becoming straight and parallel in rather more than basal half. Form more oblong than usual, parallel, strongly shining; head strongly, rather closely punctate anteriorly, more sparsely toward base, the sinus rather broad, moderately deep, subangular, the lobes broadly rounded, not impressed, the anterior canthus broadly rounded, more prominent than the posterior; prothorax short, fully four-fifths wider than long, the apex moderately sinuate, barely three-fifths as wide as the base, the angles deflexed and slightly obtuse but only narrowly rounded; base transverse, feebly oblique at the sides; surface finely, rather closely and distinctly punctate, becoming somewhat coarsely so, though not much more closely, toward the sides, the bead rather fine; scutellum small; elytra one-half longer than wide, barely as wide as the prothorax, the sides gradually converging and broadly rounded behind from about basal third, the apex rather acutely ogival; surface rugose, especially behind, coarsely and closely punctate; prosternum strongly and closely punctured throughout, the process well developed, very feebly constricted, circularly rounded at tip, very strongly margined throughout; hind femora rather coarsely, moderately closely and conspicuously punctate, the abdomen strongly and unusually closely so. Length 11.0 mm.; width 5.45 mm. (♀). Probably near Puget's Sound...**breviuscula** n. sp.

Sides of the prothorax strongly, subevenly rounded throughout, strongly converging anteriorly, becoming parallel and less arcuate toward base. Form oblong-oval, much more longitudinally convex; head not very coarsely but strongly punctured, densely toward the suture, more sparsely elsewhere, the sinus broad and unusually shallow, circularly rounded, the lobes broadly rounded, impressed near the margin, the anterior canthus evenly and broadly rounded, more prominent than the posterior; prothorax more than three-fourths wider than long, the apex rather deeply sinuate, three-fifths as wide as the base, the angles moderately deflexed, slightly obtuse and well rounded; base broadly bisinuate, the angles rather

strongly produced; surface strongly convex, sparsely but unusually coarsely punctate, gradually closely though unequally and still more coarsely so laterally, the bead moderately thick; scutellum moderate; elytra scarcely one-half longer than wide, equal in width to the prothorax, the sides straight and parallel, rather rapidly converging and rounded in apical two-fifths, oblique and straighter toward the rather acute tip; surface very coarsely, deeply and rather closely punctate and very strongly rugose throughout; prosternum rather strongly, closely punctate, the process finely so, distinctly constricted, rather acutely rounded at apex and unmargined; hind femora rather coarsely and conspicuously, though somewhat sparsely, punctured, the abdomen but little less coarsely and sparsely, strongly so. Length 9.4 mm.; width 5.0 mm. (♂). Washington State,—exact locality unrecorded.

sculptipennis n. sp.

Sides of the prothorax converging from the base.....3

3 — Prosternal process margined throughout.. 4

Prosternal process not margined, except feebly toward base.....5

4 — Body very evenly subelliptic in form, convex, shining; head strongly, rather loosely punctate, the sinus moderate in width, unusually deep, angulate, the lobes broadly rounded, more or less strongly impressed within the margin, the anterior canthus obliquely and somewhat narrowly rounded, a little more prominent than the posterior; prothorax fully three-fourths wider than long, the sides almost evenly and broadly rounded from base to apex, the latter rather shallowly sinuate, with the bottom of the sinus transverse, barely three-fifths as wide as the base, the angles deflexed and somewhat obtuse but only very narrowly rounded; base broadly bisinuate, the angles somewhat produced and acute; surface rather finely and sparsely though very distinctly punctate, gradually coarsely and rather closely so laterally, the bead fine; scutellum rather small, not very transverse, sharply triangular; elytra as wide as the prothorax, fully one-half longer than wide, the sides parallel and just visibly arcuate, rounding and converging in apical two-fifths, the sides becoming nearly straight toward the rather acutely angular tip; surface rugose to nearly smooth, moderately coarsely, rather sparsely punctate; prosternum polished, strongly, rather closely punctate, the process distinctly constricted, the marginal bead strong throughout; hind femora with moderate and rather strong but sparse punctures, those of the abdomen similar though closer. Length 11.0–11.2 mm.; width 5.7 mm. Washington State (Leavenworth), — H. F. Wickham.

regularis n. sp.

Body less evenly elliptic, oblong-oval, sometimes feebly inflated posteriorly, shining; head rather coarsely and closely punctate, the sinus nearly as in *regularis*, the lobes more narrowly rounded, more broadly and less linearly impressed, the anterior canthus nearly similar but more rounded; prothorax barely three-fourths

wider than long, the sides feebly converging and nearly straight from the base to beyond the middle, there becoming rounded and more converging, the apex more evenly sinuate, two-thirds as wide as the base, the angles, base and basal angles nearly as in *regularis;* surface rather coarsely, not very sparsely punctate, becoming unusually coarsely and densely so laterally, the bead moderately coarse, arcuate about the basal angles; scutellum more transverse, with rather rounded sides and more obtuse apex; elytra fully one-half longer than wide, near the middle a little wider than the prothorax, the sides parallel and sensibly arcuate, rounding in posterior third, becoming straight to the acutely angulate apex; surface rugose, polished, very coarsely but rather sparsely punctured; prosternum moderately shining, strongly, rather closely punctate, the process a little wider, constricted, strongly rounded at tip, feebly margined and somewhat uncertainly so near the apex; abdomen polished though feebly rugulose, with fine and rather sparse but very strong punctures. Length 10.7 mm.; width 5.55 mm. Probably from the neighborhood of Puget's Sound..... .....**punctata** n. sp.

5 — Form oblong-oval, rather elongate, strongly convex, alutaceous anteriorly, the elytra polished; head rather finely but strongly, sparsely punctate, the sinus rather narrow, deep, angular, the lobes rounded, broadly impressed, the anterior canthus nearly as in *punctata;* prothorax similar but much less coarsely punctured and less closely so toward the sides, the bead finer and more feebly hooked at base, not entirely surrounding the basal angles; scutellum small, similar in form; elytra similar in form but not inflated and with the parallel sides nearly straight, the surface similarly rugose though with the rather sparse punctures not quite so coarse; prosternum subopaque, moderately punctured and with very short fulvescent setæ, the process well developed, very feebly constricted, angularly rounded at apex, somewhat feebly margined along the sides, the apex unmargined; hind femora and abdomen sparsely and finely but somewhat strongly punctured. Length 11.3 mm.; width 5.75 mm. Vancouver Island .....**parilis** n. sp.

Form much more abbreviated and more evenly elliptic, convex, strongly shining throughout; head with moderately small, perforate and somewhat close-set punctures, the sinus a little wider and less deep, angulate, the lobes rounded, strongly impressed, the anterior canthus still more broadly rounded, much more prominent than the posterior; prothorax much shorter, nearly four-fifths wider than long, the sides more strongly converging and nearly straight to before the middle, then rounding, strongly converging at apex, the latter barely three-fifths as wide as the base, more deeply and subevenly sinuate, the angles more deflexed and much more broadly rounded, the base and the produced angles similar; surface with larger, strong and rather sparse punctures and a broader impunctate line, the punctures relatively less enlarged, sparser,

equally coarse and still more unevenly distributed laterally, the bead moderately fine, almost straight, not curved at base; scutellum smaller than in any other species observed; elytra much less than one-half longer than wide, more oval, the sides rounding and converging behind the middle to the more obtusely angulate apex, the surface similarly rugose but still less coarsely, sparsely punctate; prosternum opaque, finely, not conspicuously punctate, the process abnormally short, broadly rounded, moderately constricted, very sparsely punctate, unmargined except very finely at the sides toward base; hind femora rather closely, somewhat strongly punctured, the abdomen unusually closely and strongly so. Length 9.8 mm; width 5.3 mm. Vancouver Island, —H. F. Wickham..... ....**vancouveri** n. sp.

6 — Prosternal process margined throughout..... 7

Prosternal process not margined at apex but with an unusually broad, though flat, margin at the sides..... 13

7 — Species of the Rocky mountain system.....8

Species of the eastern foothills of the Sierras 12

8 — Anterior canthus about as prominent as the posterior..... 9

Anterior canthus much less prominent than the posterior.....11

9 — Body oblong in form, convex, polished throughout, deep black; head rather finely, subevenly and loosely punctate, the sinus rather deeply parabolic, the lobes rounded, unimpressed, the anterior canthus strongly rounded, a little more prominent than the posterior; prothorax four-fifths wider than long, the sides broadly rounded and moderately converging anteriorly, becoming nearly parallel toward base, the apex evenly and moderately sinuate, two-thirds as wide as the base, the angles deflexed, right and but little rounded, the base broadly, feebly bisinuate, with the angles rather abruptly and moderately produced; surface very finely, sparsely punctate, becoming moderately coarsely, not very closely so laterally, except anteriorly where they are still rather fine and sparse, the bead fine; scutellum not very transverse, moderate, somewhat obtusely angulate; elytra one-half longer than wide, the sides parallel and nearly straight to apical two-fifths, then strongly rounded, becoming straight to the obtusely angulate and prominent tip; surface smooth, finely, densely rugose behind, the punctures moderately fine, rather sparse; prosternum densely punctate and rugulose, the process polished and sparsely punctulate, rounded at tip, strongly constricted; hind femora and abdomen strongly but not very coarsely punctate, the latter the more closely. Length 9.2 mm.; width 4.8 mm. Utah (Nephi), — H. F. Wickham.....**uteana** n. sp.

Body more evenly elliptic in outline 10

10 — Form rather narrowly elliptic, polished, only moderately convex, deep black; head very finely, sparsely punctate, the sinus only moderately deep, broadly parabolic, the lobes broadly rounded,

scarcely impressed, the anterior canthus broadly rounded, coprominent with the posterior; prothorax two-thirds wider than long, the sides strongly converging from base to apex, subequally and rather strongly arcuate, more so at apex, the latter evenly sinuate and but little more than half as wide as the base, the angles deflexed, right and rather distinctly rounded; base broadly bisinuate, the angles but little produced; surface minutely, sparsely punctulate, becoming strongly but not very coarsely and still sparsely punctate laterally, the bead fine, perfectly straight and unmodified at the basal angles; scutellum moderate, obtuse; elytra two-fifths longer than wide, the sides rounding and converging posteriorly to the regularly ogival tip, becoming parallel only toward base, the surface smooth, rather finely rugose posteriorly, strongly and sparsely but not very coarsely punctured, more coarsely and densely behind; prosternum nearly as in *uteana* but with the process narrower, less constricted and more acutely rounded at apex; hind femora with rather small but strong and remote punctures, the abdomen minutely, sparsely and inconspicuously punctulate. Length 9.0 mm.; width 4.5 mm. (♂). Colorado (Salida), — H. F. Wickham.....**inepta** n. sp.

Form more broadly elliptic and more convex, much larger, not quite so shining, black; head finely, sparsely punctate, the sinus rather deep, subangular, the lobes not very broadly rounded, unimpressed, the anterior canthus similar; prothorax three-fourths wider than long, the sides as in *inepta*, the apex also nearly similar but three-fifths as wide as the base; base rather strongly bisinuate, the angles moderately and gradually produced; surface minutely, sparsely punctulate, gradually more strongly but still rather finely and only moderately closely toward the sides, the bead rather fine; scutellum rather small; elytra formed nearly as in *inepta* but with the sides becoming parallel in about basal half; surface rugose throughout to nearly smooth, always more strongly and deeply rugose on the declivity, the punctures rather small but strong, sparse, larger and close posteriorly; prosternum as in *inepta*, somewhat shining, closely and somewhat asperately punctate, the process similarly rather narrow and elongate, smooth and moderately constricted but more broadly and evenly rounded at tip, the abdomen and hind femora finely, sparsely and rather inconspicuously punctate. Length 10.2–11.5 mm.; width 5.1–5.6 mm. Probably from northern Idaho..... ..... **oblita** n. sp.

Form more elongate, convex, alutaceous, the elytra more shining, deep black; head finely, sparsely punctured, the sinus rather narrow, moderately deep, parabolic, the lobes broadly rounded, obsoletely impressed, the anterior canthus strongly rounded, a little more prominent than the posterior; prothorax three-fifths wider than long, the sides sensibly converging and more or less nearly straight to beyond the middle, then more strongly rounded and converging to the apex, the latter moderately sinuate and fully two-thirds as wide as the base, the apical and basal angles nearly as in *uteana*,

the former only narrowly rounded; surface finely but distinctly, rather sparsely punctate, becoming more closely and strongly so toward the sides though still not coarsely so, the bead rather fine, straight to the base; elytra one-half longer than wide, with the sides nearly straight and parallel, rounding gradually behind to the acutely ogival and prominent tip; surface rather finely, sparsely punctured, nearly smooth, moderately rugose posteriorly; prosternum, legs and abdomen nearly as in *oblita*. Length 10.3 mm.; width 5.2 mm. (♀). Utah (southwestern),— C. J. Weidt.

arida n. sp.

Form stouter and differing greatly in being inflated posteriorly, black, alutaceous, the elytra rather shining; head somewhat coarsely, loosely punctate, the sinus broad, not very deep, parabolic, the lobes broadly rounded, unimpressed, the anterior canthus rounded, coprominent with the posterior; prothorax three-fourths wider than long, in outline as in the preceding but more strongly narrowed at apex, the latter rather more deeply sinuate and barely three-fifths as wide as the base, which is more strongly bisinuate than in *arida*, with the sides more gradually and feebly oblique; apical angles but slightly rounded; surface punctured nearly as in *arida* but more strongly and more coarsely and much more closely so toward the sides; scutellum much smaller; elytra barely a third longer than wide, behind the middle evidently wider than the prothorax, the sides broadly rounded, rapidly rounded to the very obtusely subangulate apex; surface nearly smooth, rather finely and closely punctate, densely rugose and more coarsely punctate on the declivity; prosternum differing greatly, being somewhat coarsely and very closely punctate even on the process, which is shorter and broader, rounded at tip and moderately constricted; abdomen and hind femora rather finely but strongly, sparsely punctate. Length 11.1 mm.; width 5.6 mm. (♀). Utah (southwestern), — C. J. Weidt ....**weidti** n. sp.

11 — Form oblong-oval, moderately convex, deep black, rather shining; head rather strongly, unevenly punctate, the sinus rather broad, not very deep, parabolic, the lobes unusually broadly rounded, unimpressed, the anterior canthus somewhat oblique and narrowly rounded; prothorax four-fifths wider than long to a little less, the sides converging from the base and feebly arcuate, becoming strongly rounded and converging anteriorly, the apex moderately sinuate, three-fifths as wide as the base, which is very feebly bisinuate, the angles but slightly produced, the anterior angles deflexed and moderately rounded; surface rather strongly and unusually closely punctate, becoming decidedly coarsely but not materially more closely so laterally, the bead moderate, straight at base; scutellum well developed; elytra evidently less than one-half longer than wide, as wide as the prothorax, the sides parallel and nearly straight, rather rapidly rounding in apical two-fifths to the moderately obtusely ogival tip; surface slightly uneven, strongly and somewhat sparsely punctate, rugose posteriorly; pro-

sternum shining medially, with strong and moderately separated punctures, the process only moderate in width, rounded at tip, moderately constricted; abdomen unusually strongly and closely punctate, the hind femora more sparsely. Length 10.2–11.0 mm.; width 5.2–5.6 mm. Montana (Bitter Root Mts.)...**acerba** n. sp.

Form more oval and convex, polished, deep black, the punctures posteriorly with very small silvery setæ; head rather finely but strongly, not very closely punctate, the sinus moderately narrow, deep and subangulate, the lobes much less broadly rounded, even, the anterior canthus broadly rounded; prothorax from less to more than four-fifths wider than long, in outline nearly as in *acerba* throughout, the base similar; surface finely though rather strongly, not very sparsely punctate, gradually coarsely and much more closely so laterally, the bead moderately fine, straight to the base; scutellum rather small, transversely and obtusely triangular; elytra nearly as in *acerba* but rather more gradually and acutely angulate at tip, the sides parallel and very feebly arcuate; surface slightly uneven, rugose behind, the punctures strong though not very coarse, closer and coarse posteriorly; prosternum shining though strongly and densely punctured, the process less closely so, moderately broad, rounded behind and distinctly constricted; hind femora and abdomen finely and strongly punctured, the latter more closely. Length 9.0–10.5 mm.; width 4.4–5.5 mm. Colorado (Boulder Co.), — Mrs. F. Y. Parker .....**anita** n. sp.

12 — Body stout, convex, oblong-oval, dull and alutaceous, deep black, the elytral punctures with minute silvery setæ; head finely but strongly, moderately closely punctate, the sinus moderately narrow, deep and bluntly angulate, the lobes rounded and feebly impressed, the anterior canthus narrowly rounded, much more prominent than the posterior; prothorax three-fourths wider than long, the sides rounded and converging anteriorly, less arcuate and more or less nearly parallel toward base, the apex deeply sinuate, two-thirds as wide as the base, the angles not much deflexed and well rounded; base broadly, feebly sinuate toward the sides; surface finely, rather sparsely punctate, with a more or less evident impunctate line, becoming strongly and closely but not very coarsely so laterally, the bead fine, straight to the base; scutellum small; elytra parallel, one-half longer than wide to a little less, angulate in apical two-fifths; surface nearly smooth, strongly but not very coarsely, rather closely punctate, strongly rugose and coarsely, closely punctured posteriorly; prosternum strongly, densely and submuricately punctate, the process nearly smooth and very sparsely, simply punctate, broadly rounded, strongly constricted; hind femora and abdomen strongly and moderately, equally sparsely punctate. Length 8.8–10.7 mm.; width 4.7–5.1 mm. Nevada (Reno). A moderate series taken by the writer along the Truckee River..... .....**alutacea** Csy.

13 — Body narrower, oblong-oval, convex, deep black and alutaceous,

the elytra shining, with very minute setæ within the punctures; head finely, deeply and closely punctate, the sinus moderately narrow, deep, angulate, the lobes not broadly rounded, unimpressed, the anterior canthus obliquely rounded, sensibly more prominent than the posterior; prothorax three-fourths wider than long, the sides strongly and almost evenly rounded, strongly converging apically, becoming parallel basally, the apex rather shallowly sinuate, fully three-fifths as wide as the base, the angles deflexed and obtuse but rather narrowly rounded, the base feebly sinuate laterally; surface somewhat finely and sparsely though very strongly punctate, becoming coarsely but loosely so laterally, the bead rather fine, slightly curving at base; scutellum small; elytra barely two-fifths longer than wide, toward base narrower than the prothorax, the sides parallel and rounded, becoming more converging but rounded posteriorly to the ogival apex; surface slightly uneven, rugose posteriorly, strongly, rather sparsely punctate; prosternum medially finely but strongly, not densely punctate, opaque anteriorly, the process rather narrow, moderately constricted, the broad flat lateral margin differing from anything else observed in the genus; hind femora and abdomen finely, sparsely punctate. Length 9.25 mm.; width 4.75 mm. Colorado (Boulder Co.) ..... **corvina** n. sp.

Form oval, rather abbreviated, posteriorly subacute, black, shining; prothorax shorter than wide, less finely punctate than in *affinis*, the anterior angles strongly deflexed, the sides very finely margined, the posterior angles produced, acute; elytra densely, rugosely punctate. Length 10.25 mm.; width 5.5 mm. Oregon. **ovalis** Lec.

The species described by LeConte under the name *ovalis*, was probably collected at some point in the Willamette Valley, and will prove to be different from any at present represented before me; the original description is given above.

Subgenus **Crypticomorpha** nov.

Form elongate-oval, rather depressed, piceous, the under surface, legs and antennæ more or less pale and rufescent; integuments rather shining, clothed thinly with fine decumbent pubescence; head moderate, rather finely, not densely punctate, the sinus moderate in width, broadly rounded, the lobes obtuse but not very broadly rounded, the oblique sides arcuate, less prominent than the unusually convex and subentire eyes; antennæ long, very slender; prothorax nearly three-fifths wider than long, somewhat wider behind the middle than at base, the sides subevenly and rather strongly arcuate, converging anteriorly, becoming parallel basally, the apex moderately and evenly sinuate, three-fifths as wide as the base,

the angles right and narrowly rounded, the base broadly bisinuate, with the angles but slightly produced; surface minutely, sparsely punctate, becoming but slightly more strongly or less sparsely so laterally, the bead extremely fine; scutellum rather small, but slightly transverse, sharply triangular; elytra equal in width to the prothorax, rather more than one-half longer than wide, the sides parallel and straight, gradually strongly rounded in about apical two-fifths to the somewhat sharply ogival tip; surface smooth throughout, alutaceous posteriorly, very finely, evenly and not densely punctate; prosternum extremely minutely punctulate, the process unmargined, moderately constricted, long, rounded at tip; femora and abdomen minutely, sparsely, inconspicuously punctate; tarsi long and very slender. Length 6.7 mm.; width 2.9 mm. (♂). California,—the exact locality unrecorded,—J. J. Rivers..... ....**tenuis** n. sp.

Subgenus **Brachyontis** nov.

Form extremely short and stout, very convex, feebly shining, black, the legs rufous, the antennæ piceous; upper surface clothed rather thinly with coarse decumbent fulvous hairs; head moderate, rufescent anteriorly, rather finely, loosely punctate, the sinus moderate, broadly rounded, the lobes obtuse, not very broadly rounded, the anterior canthus rounded, less prominent than the posterior; antennæ rather short, thick; prothorax fully four-fifths wider than long, the sides almost evenly rounded, more converging anteriorly, becoming parallel near the base, the apex strongly sinuate, two-thirds as wide as the base, the angles much deflexed, obtuse but not broadly rounded, the base transverse, straight, feebly curved posteriorly toward the sides, the hind angles rounded; surface finely, closely punctate, more strongly and still more closely so toward the sides, the bead fine, curving inwardly at base; scutellum moderate, polished, obtuse; elytra not longer than wide, very strongly declivous behind, at the middle a little wider than the prothorax, the sides parallel and broadly arcuate, the apex very broadly obtuse; surface smooth even posteriorly, minutely, rather sparsely punctate; prosternum finely, closely punctate, the process short, moderately constricted, rounded and convex apically, not margined except feebly at the sides basally; abdomen almost impunctate. Length 6.4–6.5 mm.; width 3.7–4.22 mm. California (Tahichipi Pass)..... .....**globulina** Csy

It should be borne in mind that the groups into which the genus *Coniontis* is divided above, are, in considerable measure, arbitrary and intended more to facilitate identification than anything else; the *abdominalis*, *opaca* and *subpubescens* groups are perhaps the least natural aggregates, while the *viatica*, *setosa*, *eschscholtzi* and *ovalis* groups are more in the nature of quasi-subgeneric geographic sections of the genus, more sharply circumscribed in general habitus and are more homogeneous.

Coniontellus Csy.

The small convex species constituting this genus have a facies very similar to that of *Coniontis*, but, besides the completely divided eyes, they differ in their shorter legs and smaller antennæ. They are divisible into two clearly separated groups, the first, having stiff hispid vestiture, being confined as far as known to the eastern slopes of the central Sierras, all that I have seen having been taken in the valley of the Truckee River; the other group, smaller and glabrous or virtually so, are very widely distributed, but, unlike *Coniontis*, are entire strangers to the fauna of the coast regions. The eight species in my collection may be described as follows: —

Elytra bristling, more especially toward the sides and tip, with stiff erect fulvous setæ.....2

Elytra glabrous, or at most with very minute, decumbent and inconspicuous hairs.....5

2 — Integuments castaneous in color.....3

Integuments black 4

3 — Body oblong, convex, rather shining, coarsely sculptured; head strongly but not coarsely, loosely punctate, more finely and densely so before the suture, the sinus deep, angulate, the lobes broadly rounded; prothorax more than four-fifths wider than long, the sides broadly rounded and converging before the middle, becoming parallel or nearly so and straighter thence to the base, the apex strongly sinuate, fully two-thirds as wide as the base, the latter transversely truncate, gradually curved posteriorly at the sides, the apical angles deflexed, right and narrowly rounded, the basal but slightly produced and blunt; surface finely, sparsely punctured, becoming coarsely, closely so and with the punctures elongate laterally, the bead fine; scutellum moderate, not much wider than long, triangular; elytra less than one-half longer than wide, not inflated apparently in either sex, the sides parallel and straight, abruptly rounding in apical third to the obtuse tip; surface almost vertically declivous behind, slightly uneven, coarsely, very deeply, evenly and closely punctate throughout; prosternum and process strongly and closely punctate, the latter margined at the sides but not at the rounded apex; abdomen rather finely, strongly, somewhat sparsely punctate. Length 7.2–7.7 mm.; width 3.6–3.9 mm. Nevada (near Reno),— H. F. Wickham ....**hystrix** n. sp.

Body oblong, more elongate, larger in size, shining, less strongly sculptured; head rather finely and closely, strongly and subevenly punctured throughout, the sinus nearly similar, the lobes still more broadly rounded, the sides more broadly rounded before the eyes; prothorax twice as wide as the median length or nearly so, formed

otherwise nearly as in *hystrix*, but with the coarse punctures near the sides not elongate and with the narrow interspaces less smooth, and also differing in having the sloping flanks somewhat subexplanate basally and the marginal bead coarser; scutellum similar though a little larger; elytra much more elongate, fully one-half longer than wide, nearly three times as long as the median line of the prothorax, less declivous posteriorly, rounded in apical third, the apex feebly produced, the sides parallel and straight (♂) or feebly arcuate and somewhat inflated posteriorly (♀); surface very smooth, the punctures smaller, only moderately coarse but perforate and much more widely separated; prosternum similarly strongly, closely punctate, the process larger, more constricted, the lateral beading much finer; abdomen with rather small but strong, moderately sparse punctures. Length 7.8–8.2 mm.; width 3.8–4.6 mm. Nevada (near Reno), — H. F. Wickham.

longipennis n. sp.

4 — Form stout, convex, deep black, somewhat alutaceous in lustre; head punctured nearly as in *hystrix*, the sinus rather small, moderately deep, broadly angular, the lobes broadly rounded; sides obtusely prominent before the eyes; prothorax four-fifths wider than long, the sides very moderately rounded and not very strongly converging anteriorly, becoming parallel and straighter posteriorly, the strongly sinuate apex three-fourths as wide as the base, the angles and base as in the preceding species; surface not coarsely but strongly, sparsely punctured, the punctures becoming coarse, dense and slightly elongated laterally, the bead fine, the hind angles more narrowly produced and more acute than in the preceding; scutellum very small; elytra feebly inflated posteriorly (♂) or strongly so (♀), the sides broadly arcuate at or behind the middle, distinctly wider than the prothorax, the apex obtusely ogival and somewhat prolonged; surface coarsely and deeply but rather sparsely punctate, much more finely so on the opaque posterior declivity; prosternum coarsely, rather closely punctate, the process longitudinally and strongly convex; abdomen sparsely but strongly punctate, polished. Length 6.6–7.0 mm.; width 3.25–3.75 mm. Nevada (Reno). A small series taken by the writer on the banks of the Truckee, in the suburbs of the town.

inflatus Csy.

Form still stouter, less convex, oblong, black, moderately shining, larger in size; head finely but strongly, subevenly and closely punctate, the sinus moderate, deep, subangular, the lobes broadly rounded; prothorax twice as wide as its median length, inflated, much wider just behind the middle than at base, the sides strongly, subevenly rounded, more converging anteriorly, the apex strongly sinuate, fully two-thirds as wide as the base, the angles right, rather narrowly rounded, the basal rather narrowly but abruptly and moderately produced and acute; surface finely and sparsely punctate, becoming coarsely and densely so, with the punctures just visibly elongate, laterally, the bead rather fine; scutellum very small, as

in *inflatus*, almost equilatero-triangular; elytra evidently less than one-half longer than wide, not at all wider than the prothorax, the sides parallel and but very feebly arcuate, the apex very obtusely rounded, the tip angular; surface with moderate, deep and perforate, rather sparse punctures, which are not notably smaller on the posterior declivity, the latter not differing in lustre, shining; prosternum deep black, strongly punctured, the process rather short and somewhat strongly constricted, rounded, not margined even at the sides; abdomen rather finely and sparsely though strongly punctate. Length 8.0 mm.; width 4.2 mm. Nevada (near Reno), — H. F. Wickham..... .....**ampliatus** n. sp.

5 — Elytra with very small hairs observable posteriorly. Body oblong, stout, convex, deep black, the legs and antennæ dark rufous, the surface only feebly shining; head finely, closely punctate, especially anteriorly, the sinus moderately deep, broadly angular, the lobes broadly rounded; prothorax twice as wide as its median length, the sides evenly rounded and converging anteriorly, becoming parallel in about basal half, the apex deeply and evenly sinuate, three-fourths as wide as the base, the angles deflexed, right and not rounded; base transversely rectilinear, curving rather abruptly to the rear near the sides, the angles rather prominent posteriorly and not blunt; surface strongly and closely punctate, becoming more coarsely and still more closely so laterally, the bead very fine; scutellum moderate, sharply equilatero-triangular; elytra less than a third longer than wide, equal in width to the prothorax, the sides parallel and straight, rounding to the very acutely ogival tip in apical two-fifths; surface but slightly uneven, rather coarsely, deeply, moderately closely and conspicuously punctate, the punctures very close laterally, becoming smaller only very near the acute tip; prosternum strongly but not densely punctate, the process unmargined; abdomen not coarsely but strongly, somewhat closely punctured. Length 6.6 mm.; width 3.1 mm. Colorado (central). [= *Coniontis obesa* Lec.].....**obesus** Lec.

Elytra completely glabrous, the setæ so minute as to be invisible under moderate power..... 6

6 — Form oblong, rather more elongate than in *obesus*, similar in coloration and slightly more shining; head similarly punctured and almost equally short and transverse, the sinus smaller and still feebler, the lobes very broadly rounding and scarcely differentiated from the rounded sides, similarly with a very faint emargination at the ends of the oblique sutures; prothorax similar but less transverse, not more than four-fifths wider than long, similarly punctured and even more closely toward the sides; scutellum similar though notably smaller; elytra similar though a little more elongate, the punctures sensibly less close-set and decidedly less coarse; under surface nearly similar throughout. Length 5.8–6.75 mm.; width 2.8–3.2 mm. Montana (Helena).....**subglaber** Csy.

Form similar to that of *subglaber*, deep black, more or less alutaceous,

the legs and antennæ piceo-rufous; head nearly similar, the sinus broader, moderately deep, angular, the lobes broadly rounded; prothorax almost exactly as in *subglaber*, the deflexed anterior angles blunt and by no means so sharply defined as in *obesus*, the punctures very fine and rather sparse but almost similarly strong and close-set laterally, the hind angles a little less prolonged and blunter; scutellum similar, the elytra still more elongate, parallel in both sexes, nearly one-half longer than wide, shorter in the male, the punctures fine and sparse though distinct throughout; prosternum strongly, rather closely punctate, the process sometimes feebly margined at the sides but never at tip; abdomen finely, sparsely punctate, a little more coarsely but still sparsely so toward the sides (♀) or closely and more coarsely so (♂). Length 6.2–7.0 mm.; width 3.15–3.35 mm. California (Bodie, — elevation 8475 feet).....**argutus** n. sp.

Form nearly similar but more convex and with the elytra inflated, probably more or less in both sexes, polished, deep black, the legs and antennæ rufo-piceous; head nearly as in the preceding species, strongly and closely punctured; prothorax as in *argutus*, the deflexed anterior angles right and blunt; surface rather finely but strongly, not very closely punctate, strongly and closely so laterally; scutellum a little larger, similarly equilatero-triangular; elytra at the middle much wider than the prothorax, not a third longer than wide, the sides parallel, evenly and rather strongly arcuate, very rapidly rounding behind to the ogival but less prominent tip; surface smooth, very finely, sparsely punctured; under surface nearly as in the preceding species, the abdomen strongly, moderately sparsely punctured, more coarsely so laterally. Length 6.5 mm.; width 3.45 mm. Colorado (Buena Vista, — elevation about 8000 feet), — H. F. Wickham.....**micans** n. sp.

Some time ago I suppressed *subglaber*, as a synonym of *obesus*, but more careful study shows that this course was premature; they are not by any means the same species. Mr. Warren Knaus kindly sent me a specimen of the species named *argutus* above, and I had also previously secured a series of four specimens from Mr. Wickham, giving a sufficiently complete succession of individuals for study; there is very little variation, but the male is notably less elongate than the female, sometimes having a more shining surface and stronger abdominal punctures. It is interesting to note that the inflation of the elytra is not necessarily a sexual character, though, when it occurs in both sexes, it is more pronounced in the female, and also to observe that some species in both groups of the genus, otherwise closely allied, may have the elytra inflated or without trace of inflation even in the female.

Conisattus Csy.

While the general organization of this genus is essentially similar to that of *Coniontis*, there are some characters that recall the Eusatti, such as the reflexed margin of the head, narrowly explanate sides of the pronotum and feebly prominent, though obtuse, external apical angle of the anterior tibiæ. It differs from the Eusatti, and is more closely affiliated with *Coniontis*, in the unproduced basal angles of the prothorax and well developed, sharply triangular scutellum. In the simple and filiform anterior tarsi, with the first four joints subequal and but slightly longer than wide, shorter basal joint of the posterior tarsi and almost wholly unimpressed mesosternum, it is however peculiar, proving it to be an isolated type of the subfamily; there is but a single species as follows: —

Form oblong, convex, subalutaceous, rufo-piceous, the legs dark rufous and the antennæ pale ferruginous, glabrous, with a few short hairs on the hypomera and some longer bristling setæ at the sides of the epipleuræ toward base; head finely punctured, sparsely behind, more closely before, the suture, the sinus moderately wide, rather shallow and parabolic, the margin of the oblique, rounded and medially emarginate sides moderately reflexed; antennæ long and very slender; prothorax fully twice as wide as long, widest behind the middle, subparallel, the sides subevenly arcuate, somewhat more converging anteriorly, the apex broadly and strongly sinuate, nearly three-fourths as wide as the base, the angles not deflexed and evidently rounded; base transverse; surface rather finely and sparsely but strongly punctate, becoming strongly and more coarsely but not densely so laterally, the margins narrowly and equally explanate throughout the length, the bead very fine, the basal angles very feebly produced, right and not rounded; scutellum but slightly wider than long; elytra scarcely as wide as the prothorax, parallel and very feebly arcuate at the sides, arcuately and gradually narrowed in apical two-fifths, the tip narrowly and slightly prolonged and rather acute; surface nearly smooth, finely, feebly, submuricately and sparsely punctured, more closely but not at all more coarsely toward the sides; prosternum moderately finely, submuricately punctate, the process not margined; abdomen rather gradually acute posteriorly, shining, finely and sparsely punctate and sparsely puberulent; tarsi long and very slender. Length 6.5 mm.; width 3.25 mm. Oregon (northwestern).

rectus Csy.

A few examples were taken by Mr. Schwarz at Squally Hill, which seems to be in the neighborhood of Astoria. The epi-

pleuræ are more narrowed toward apex than in *Coniontis* and are concave toward base; they are very finely, feebly and sparsely punctate.

Cœlotaxis Horn.

This genus is a development from the archetypes of *Coniontis*, by reason of isolation on the solitary Island of Guadalupe, probably during the time elapsing between some epoch in the late Tertiary and the present time; it is in fact simply *Coniontis* with feebly ciliate sides of the body, shallow and submuricate punctuation, subexplanate sides of the pronotum, rather more developed and more obliquely truncate basal joint of the anterior tarsi, somewhat less elongate basal joint of the hind tarsi, less impressed mesosternum and extremely minute scutellum, the last being the most important and striking differential feature. It is scarcely more closely allied to *Cœlus* than is *Coniontis* itself, any apparent resemblances, such as the ciliate sides of the body, being merely superficial or directly due to some similarity in habits. It is rather remarkable, when we consider the very circumscribed habitat of the genus, that several species, more or less closely allied it is true, should have been gradually evolved; these as represented in my cabinet by large series, in all except two of the species, may be defined as follows: —

Epistomal sinus larger, in the neighborhood of a third as wide as the maximum width of the head; anterior angles of the prothorax somewhat deflexed, the lateral bead more or less fine.....2

Epistomal sinus very small, barely a fifth as wide as the head and very shallow, the lobes broadly rounded; anterior thoracic angles not deflexed, the lateral bead unusually thick.....6

2 — Elytra shining, rather sparsely and much less conspicuously punctured, the pubescence shorter and barely visible. Form broadly oblong-oval, strongly convex, dark blackish-brown, the under surface, legs and antennæ paler; head coarsely, densely punctate, broadly rounded, the sinus moderately shallow, subangular, the sides broadly rounded, very much more prominent than the eyes or the posterior canthus; antennæ long and very slender, the third joint much longer than the fourth; prothorax slightly more than twice as wide as its median length, the sides broadly, subevenly rounded and converging from base to apex, a little more strongly so toward the apex, which is three-fifths as wide as the base, deeply and evenly sinuate, the angles but little deflexed and merely somewhat

blunt; base transversely truncate, the angles very feebly prolonged backward and blunt; surface coarsely, deeply and closely punctate, more densely so sublaterally and again more finely and sparsely near the sides, where it becomes rather broadly subexplanate posteriorly, though narrowly so anteriorly, the bead not very thick, strongly elevated; elytra about a fourth longer than wide, the sides subparallel and very feebly arcuate, rounding a little at base, strongly rounding posteriorly to the broadly ogival tip, the surface nearly smooth, the punctures rather small and feeble, varying but little in size, becoming faintly muricate laterally and smaller apically, much smaller and less deep than those of the pronotum; prosternum strongly, rather closely punctate, the process well developed, not margined at apex; hind femora coarsely and conspicuously, though very remotely, punctate, the abdomen finely, sparsely so medially, more coarsely and closely, muricately so laterally. Length 8.8–11.2 mm.; width 4.6–5.9 mm.

punctulata Horn

Elytra densely dull, unevenly and closely punctured, the pubescence coarser and more conspicuous, though almost equally thinly distributed, the moderately long erect fulvous setæ along the sides of the body more developed.....3

3 — Body broadly oblong-oval.....4

Body narrowly oblong, with the sides more parallel.....5

4 — Form very broad, moderately convex, dark castaneous, the under surface, legs and antennæ paler, dark rufo-ferruginous; head less coarsely, very deeply and unequally punctate, very densely so centrally, much less densely before the suture, nearly as in *punctulata* in outline but less broadly rounded and less prominent at the sides before the eyes; antennæ similar; prothorax similar throughout, except that it is a little shorter and much more than twice as wide as long, with the apical sinus rather less deep, the almost equally coarse and perforate punctures still denser; elytra similar but with the parallel sides very slightly more arcuate, the punctures about as large as those of the pronotum but not so deep and intermixed with smaller punctures, very close-set and muricate throughout; under surface nearly similar, except that the coarse and very conspicuous punctures of the hind femora are generally less sparse, the basal joint of the anterior tarsi very slightly less stout and somewhat less obliquely sinuato-truncate at tip. Length 8.2–10.7 mm.; width 4.4–5.7 mm.

muricata Horn

Form rather less broad and more evenly elliptic, more convex, blackish-brown in color, the legs piceous-black, the abdomen still blacker, the sterna and antennæ paler, rufo-ferruginous; head as in *muricata* and similarly punctate but more broadly and less obliquely rounded at the sides, the antennæ similar; prothorax less transverse, barely twice as wide as its median length, the sides much less converging from the base and more narrowly and more feebly

subexplanate, the bead finer, otherwise similar in outline and in its very dense and perforate punctuation; elytra more elongate, more gradually and acutely ogival at tip, fully a third longer than wide, the punctures similarly muricate and uneven in size but not quite so dense; prosternum less coarsely and more sparsely punctate, the process narrower, the abdomen similar, the coarse punctures of the hind femora remote, the basal joint of the anterior tarsi stout and nearly as in *punctulata*. Length 11.0 mm.; width 5.65 mm.....**densa** n. sp.

5 — Body narrow and parallel, strongly convex, blackish-brown or paler, the under surface, legs and antennæ rufous; head strongly and densely, moderately coarsely punctured, nearly as in *muricata* but with the sinus broader and deeper, parabolic, the sides before the eyes only moderately prominent, obliquely rounded, the antennæ nearly similar; prothorax twice as wide as long to very slightly more, formed as in *densa* and likewise very narrowly subexplanate at the sides, coarsely, very deeply and densely punctate, the punctures at the sides sparse and mingled with smaller punctures; elytra nearly a third longer than wide, the sides parallel and very feebly arcuate, not rounding at base, gradually and arcuately narrowed posteriorly to the obtusely ogival tip, the surface smooth, with the close-set, muricate and unequal punctures of the preceding species; prosternum strongly, closely punctured, the hind femora coarsely and sparsely, the abdomen finely but strongly, sparsely so and with the punctures scarcely larger or denser toward the sides. Length 7.6–9.7 mm.; width 3.75–5.0 mm.....**angustula** Csy.

6 — Form narrower, more elongate and more convex than in *punctulata* or *muricata*, rather less narrow and more elliptic than in *angustula*, brownish-black, the legs and antennæ more or less rufo-picescent, dull in lustre above; head broadly rounded at apex, coarsely, densely punctate, especially toward the subobsolete transverse impression, the sides more broadly rounded than in any other species except *densa*, much more prominent than the eyes; prothorax scarcely more than twice as wide as its median length, the sides subevenly and distinctly converging and broadly arcuate from base to apex, the apical angles prominent, very narrowly blunt, the surface more coarsely and densely punctate than in any other species, with a partial elevated impunctate line along the middle, the sides narrowly concavo-explanate and obsoletely so at base as usual; elytra fully a fourth longer than wide, the sides rounding and converging to the rather obtusely ogival tip behind the middle, rather rough, with feeble traces of a ridge near and oblique to the suture, not extending to base or apex, the surface more coarsely muricate than in *densa* or *muricata* and equally closely, with numerous small, suberoded and more opaque areas; under surface punctured as usual but more strongly; pubescence and lateral fimbriæ as in *muricata*, sparser and less fulvous than in *angustula*. Length 11.0 mm.; width 5.4 mm.

frontalis n. sp.

The series of *punctulata* and *muricata* before me are composed of twelve and nineteen specimens respectively, that of *angustula* consisting of seven specimens, rendering the differences alluded to above patent at a glance; the types of *densa* and *frontalis* are still unique. In his original description of *Cælotaxis* (Trans. Am. Ent. Soc., V, 1876, p. 200), Dr. Horn makes no mention of its most conspicuous distinguishing character, which is the minute and subobsolete scutellum, and, in the accompanying table, interposes *Cælus* between *Cælotaxis* and *Eusattus*. It is true that the very great obliquity of truncature of the basal anterior tarsal joint, which varies but little throughout the genus, gives rise to the appearance of a short spur-like process homologous with the long process of *Cælus*, but this is simply a variation of the structure of this joint characterizing *Coniontis*, due to the more developed burrowing habits of *Cælotaxis*, as shown by the fimbriate margins of the body in the latter genus. At the same time, the long spur of *Cælus* is merely a still further development of this character, surviving in more or less developed form from the common archetypes of the subfamily Coniontinæ, wholly lost in *Eusattus* and allies and most developed in the burrowing types, such as *Cælus*. It simply proves that *Cælus* and *Coniontis* are descended from the same ancestors, the remoteness of which can only be conceived on considering the very radical antennal differences, which must have taken untold ages to develop, and of which no trace of any surviving intermediate form has yet come to light.

Tribe Cœlini.

In proposing a separate tribe based upon virtually a single structural character, such as obtains in the case of *Cælus* with one or two allied genera, much should depend upon the nature of this differential feature, its degree of development and its constancy or consistency. The antennæ throughout the series of genera discussed hitherto in this paper, constituting the Coniontini, are greatly developed, long and generally slender, while in *Cælus* and allies these organs assume a totally different form, being very small, thicker and more compact. If there were any intermediate living forms, and I cannot regard the

case of certain far-distant exotics of the Praocini mentioned by Lacordaire as being a case in point, there might be ground for believing that these two groups of genera should not be tribally separated, but there is no evidence whatever of such intermediates and the proper course would therefore appear to be the tribal separation here suggested. It is of course possible to surmise that this very great reduction of the antennæ in *Cœlus*, and especially *Cœlomorpha*, may be due simply to their burrowing habits, but that this is not wholly true is proved by the fact that in *Cœlotaxis*, which, as shown by the lateral fimbriæ and by the more extended inner angles of the basal anterior tarsal joint, has at least some burrowing propensity, there is no tendency whatever to a shortening of the antennæ, they being even longer and more slender than in the prevailing type of *Coniontis*. At the same time, there is undoubtedly an unusually strong bond of affinity between the Coniontini and Cœlini in the modification of the basal anterior tarsal joint, proving beyond question a common origin, but the elimination of all intermediates in antennal structure decisively isolates the Cœlini at the present epoch of their history, and this is the only point to consider in delimiting genera, tribes and other higher groups. There are two genera of Cœlini as follows: —

Body briefly oblong-oval, very convex, ciliate at the sides, the basal angles of the prothorax obtuse but not much rounded; antennæ 11-jointed, the basal joint very long, arcuate, two-thirds as long as the remainder; submentum well developed; eyes transversely reniform, emarginate anteriorly; process of the basal anterior tarsal joint very long and stout. [Type *C. ciliatus* Esch.]. **Cœlus**

Body nearly similar in form but much smaller, similarly ciliate at the sides, the basal angles of the prothorax well rounded; antennæ 10-jointed, the basal joint much smaller, barely a third as long as the remainder; submentum not distinct; eyes less transverse, not emarginate anteriorly; process of the anterior tarsus much smaller. [Type *Cœlomorpha maritima* Csy.]..... **Cœlomorpha**

The members of these genera are very abundant individually, and are only found on or near the ocean beaches burrowing into loose sand.

Cœlus Esch.

In this genus the body is oval to oblong-oval and always strongly convex in form, with a dense fringe of erect fulvous setæ along the sides and with bristling hairs of the same nature on the legs, along the anterior margin of the pronotum and on the head behind the suture, but otherwise subglabrous. The head is sinuate anteriorly, with a deep transverse suture delimiting the epistoma, and the sides project laterally far beyond the eyes, which are basal and more or less concealed by the prothorax, the latter transverse, narrowed at the apex, which is deeply sinuate, the base truncate and having a fine coriaceous margin and the hind angles not at all produced posteriorly. The scutellum is minute and triangular, being occasionally obsolete and the elytra are rounded, feebly embracing the sides of the body beneath, with the epipleuræ narrow, gradually wider and more or less concave basally. The legs are short and stout, all the tibiæ subequally dilated externally at tip, the terminal spurs long and hollowed or flattened on their under surface, the tarsi very slender, moderately long, with the joints swollen distally and bearing each a terminal corona of stiff fulvous setæ, the hind coxæ narrowly separated as in *Coniontis*. The species are rather numerous, and, so far as known, may be defined as follows: —

Elytral punctures strongly muricate; species inhabiting the mainland of central and southern California exclusively. [**Cœlus** in sp.]...2

Elytral punctures simple, not muricate, the lateral fimbriæ less developed; species confined to the islands off the coast of southern California. [**Pseudocœlus** n. subgen.].. 12

2 — Epistoma very deeply sinuate 3

Epistoma more broadly and less deeply, though conspicuously, sinuate, the sinus trapezoidal in form, the bottom narrowly transverse; species more northern in habitat..... 5

Epistoma broadly and very feebly sinuate, the sinus generally subevenly rounded 7

3 — Pronotum subevenly punctured throughout. Body broadly oblong-oval, black to piceous in color, polished, moderately small in size; head strongly and densely punctate, with a median impunctate area at base as usual; antennæ rufous, having a compact fusiform club of about three joints; prothorax two and three-fourths times as wide as its median length, the sides rather strongly converging from base to apex and broadly rounded, more strongly so basally,

the apical sinus very deep, the angles not deflexed, rounded; surface coarsely, deeply and closely punctured throughout, not differing much near the sides, which are explanate, the bead fine and feeble; elytra but just visibly longer than wide, rounded at the sides and obtuse behind, the immediate apex sharply ogival, the sides becoming parallel toward base; surface vertically declivous and then slightly inflexed behind in profile, the punctures strong, moderately separated, muricate, becoming granular posteriorly; prosternum densely punctato-rugose, the process moderately constricted between the coxæ; abdomen finely but strongly, more or less closely punctate. Length 5.8–7.8 mm.; width 3.7–4.9 mm. San Diego..... .....**globosus** Lec.

Pronotum very unevenly punctate, with large patches devoid of punctures. 4

4 — Body large in size, oblong-ovoidal, blackish-castaneous to rufopiceous in color, shining; head rather coarsely, deeply and densely punctate, with the usual basal impunctate area; antennal club fusoid, of about four joints; prothorax scarcely two and one-half times as wide as the median length, the sides much more parallel, broadly rounded, more converging anteriorly, the apical sinus very deep as usual, the angles more broadly rounded than in *globosus;* surface sparsely and rather finely but very deeply punctate, the punctures becoming close and mingled with larger punctures on the explanate lateral part, the bead rather coarse though only feebly elevated and distantly punctured; elytra but little longer than wide, at the middle evidently wider than the prothorax, the sides parallel and broadly arcuate, rapidly converging and rounded behind, the surface nearly as in *globosus* but more rugose, the punctures strongly muricate, rather sparse, less sparse and granulose posteriorly as usual; pubescence long, subdecumbent and conspicuous toward the sides posteriorly and much more conspicuously so than in *globosus;* prosternal process only moderately constricted between the coxæ; abdomen rather sparsely but distinctly punctate. Length 11.0–12.0 mm.; width 6.4–7.0 mm. Probably San Pedro, — G. W. Dunn.....**grossus** Csy.

Body similar to the preceding in general characters but uniformly smaller and relatively narrower, polished, castaneous in color; head notably smaller in size but otherwise similar; prothorax a little shorter and more narrowed at apex but otherwise similar; elytra as in *grossus*, except that they are less inflated and never more than just visibly wider than the prothorax, the sculpture somewhat less coarse and notably less close; under surface nearly similar, except that the prosternal process is less abbreviated and with the punctuation less coarse, the metasternum, especially, more sparsely and much less conspicuously so. Length 9.4–10.7 mm.; width 5.5–6.0 mm. Sta. Barbara, — G. W. Dunn.....**solidus** n. sp.

Body shorter, broader and more evenly oblong-oval in form than in *grossus* and smaller in size, though unusually large for the genus,

deep black throughout, the antennæ piceous with a testaceous fusoid club of about three joints; head densely but less coarsely punctate; prothorax nearly two and three-fourths times as wide as long, the sides rounded and converging anteriorly, becoming parallel, though rounded, toward base and converging toward the very obtuse basal angles as usual, the apical angles less broadly rounded than in *grossus;* surface more coarsely and much more closely punctured, scarcely differing on the explanate lateral part, the bead fine but well defined, not punctate; elytra about as wide as long, not wider than the prothorax, formed nearly as in *globosus* and similarly sculptured, sparsely pubescent toward the sides posteriorly; prosternal process strongly constricted, its neck generally but little more than half as wide as the dilated posterior portion; abdomen polished as usual, not coarsely but strongly, rather sparsely punctate. Length 7.6–9.6 mm.; width 5.0–6.0 mm. Redondo Beach.....**saginatus** n. sp.

5 — Head well developed, very nearly half as wide as the prothorax. Body oblong-oval, more elongate than usual, strongly convex, polished, black, with the under surface piceous to piceous-brown throughout; head coarsely punctured behind, more finely and sparsely before, the transverse groove, which is coarser and deeper than in the preceding species, the epistoma more swollen transversely toward the middle and more impressed or flattened at the lobes; antennal club fusiform as usual, of about four joints; prothorax rather less than two and one-half times as wide as long, the sides moderately and subevenly converging from base to apex and subevenly, moderately arcuate, the angles not more than blunt, very much less rounded than in the four preceding; surface rather finely, very sparsely punctate, the punctures unequally distributed, having occasional vacant areas, rapidly declivous laterally and only narrowly explanate at the sides, where there are some scattered coarser punctures in addition, the bead fine and feeble; elytra but very slightly longer than wide, rounded at the sides, becoming parallel only basally, only just visibly wider than the prothorax, obtuse and vertically declivous posteriorly, coarsely, sparsely punctato-muricate, more closely and finely granulate posteriorly, the fulvous pubescence conspicuous near the apex; prosternal process strongly constricted; abdomen very finely and remotely punctate, the last segment more coarsely and closely so as usual. Length 5.5–7.5 mm.; width 3.2–4.4 mm. San Francisco,— found only on the sea-beaches..... .....**ciliatus** Esch.

A — Similar in general to *ciliatus* but with the body materially larger and notably more elongate, the elytra much longer than wide; prosternal process even somewhat more strongly constricted, the hind femora more coarsely and conspicuously punctured. Length 8.0 mm.; width 4.7 mm. San Francisco.
longulus n. subsp.

Head much smaller, very evidently less than half as wide as the prothorax.....6

6 — Form nearly as in *ciliatus* but much smaller in size, blackish-castaneous to much paler piceo-testaceous, polished; head similar though less coarsely, densely punctured behind the suture and more finely, rather more closely before the latter; prothorax similar in form and sculpture but somewhat more finely and densely punctate toward the sides; elytra similar in general form but rather less coarsely and more closely punctato-muricate and still more finely and closely granose posteriorly; under surface nearly similar, the prosternal process equally strongly constricted. Length 4.8–5.8 mm.; width 2.8–3.4 mm. San Francisco,— found burrowing in loose sand on Blue Mt., near the ocean beach.
debilis n. sp.

Form very much more dilated than in either of the preceding, oblong-oval, polished, black, the under surface and legs piceo-rufous, the antennæ yellow-brown; head small, rough and punctate behind, and at the sides before, the suture, subimpunctate medially before the suture, the epistoma much less tumid medially than in *ciliatus;* prothorax shorter and more transverse, the sides more strongly converging and more strongly arcuate from base to apex, the anterior angles rather more deflexed and more rounded; surface similar and almost similarly finely and remotely, though less unequally, punctured; elytra not longer than wide, not at all wider than the prothorax, the sides feebly converging and feebly arcuate from the base, rapidly and obtusely rounded at apex, sculptured as in *ciliatus;* under surface nearly similar, except that the prosternal process is less strongly constricted. Length 5.25 mm.; width 3.35 mm. Near San Francisco.....**curtulus** Csy.

7 — Punctures of the pronotum unequally distributed, leaving large areas devoid of punctuation..... 8

Punctures of the pronotum almost evenly distributed 9

8 — Body rather broadly oblong-oval, polished, blackish, the elytra dark red-brown, the under surface and legs rufo-piceous, the antennæ paler and more flavate as usual; head coarsely and densely punctate behind and with a mixture of large and small punctures, sparse medially before the suture, the entire basal region impunctate, the epistoma moderately convex medially, flat laterally; antennæ gradually clavate distally as usual; prothorax two and one-half times as wide as long, the sides strongly converging from base to apex and broadly arcuate, gradually more rounded basally, the apical angles very evidently rounded; surface sparsely and very strongly, but not very coarsely punctured, the punctures closer and mingled with some much coarser punctures laterally, the sides not very widely declivo-explanate, the bead rather strong, especially around the apical angles; elytra scarcely at all longer than wide, not at all wider than the prothorax, the sides parallel and broadly arcuate, rounding to the obtuse apex in scarcely apical two-fifths, the immediate tip sharply ogival as usual; surface with the usual strong, sparse and muricate punctures, becoming finer

and closer granules on the alutaceous posterior declivity; prosternal process only moderately constricted between the coxæ; abdomen finely but strongly, sparsely punctate, more coarsely, densely so on the last segment. Length 8.4 mm.; width 5.1 mm. California (San Pedro).....**arenarius** Csy.

Body more narrowly elongate-elliptic, strongly convex, polished, black to rufo-piceous in color, the under surface and legs always somewhat paler; head nearly as in *arenarius*, very coarsely, densely punctate behind the suture, more finely, clearly and densely so on the flattened apical lobes, the median tumescent part of the epistoma rugosely but less densely punctate; prothorax less abbreviated, the sides less strongly converging, broadly and subevenly arcuate from base to apex, the apical angles more distinct and less rounded; surface similarly very sparsely punctate, the larger lateral punctures less coarse and the sides more broadly declivo-explanate, the bead similar; elytra not at all wider than the prothorax, very slightly longer than wide, the sides converging and rounding from before the middle, the apex obtusely and evenly rounding from above, the surface inflexed near the apex, the apical angle sharply ogival as usual, the sculpture somewhat less coarse than in *arenarius;* prosternal process very strongly constricted between the coxæ, the neck scarcely more than half as wide as the dilated and rounded posterior part; abdomen almost similarly punctate, the last segment relatively less densely. Length 8.0–8.6 mm.; width 4.7–4.85 mm. Sta. Barbara, — G. W. Dunn. **sternalis** n. sp.

9 — Body evenly elliptic in form, the prothorax not at all wider than the elytral base 10

Body broadly oblong-suboval, the prothorax more swollen basally, and, at a short distance before the base, distinctly wider than the base of the elytra 11

10 — Form rather elongate, black, the antennæ and tarsi paler; head with irregular, dense, mingled coarse and finer punctures behind the suture, the epistoma but feebly tumid medially, more or less sparsely punctured; prothorax two and one-half times as wide as long, the sides strongly converging, strongly and very evenly arcuate from base to apex, the angles only very narrowly rounded; surface rather finely but strongly, sparsely punctate, more coarsely and with admixture of smaller close-set punctures laterally, the sides rather narrowly, subequally explanate, the bead very fine throughout; elytra scarcely visibly longer than wide, evenly rounded behind from above, the sides becoming parallel only toward base, the punctures as usual, the posterior fulvous pubescence conspicuous; prosternal process moderately constricted, the neck fully two-thirds as wide as the dilated posterior part; abdomen finely, sparsely punctate, more strongly and densely on the last segment as usual. Length 6.9 mm.; width 4.15 mm. Los Angeles Co ....**obscurus** n. sp.

Form relatively a little broader, castaneous in color, the anterior parts more blackish; head nearly similar though notably smaller, barely two-fifths as wide as the prothorax, the antennæ only moderately enlarged distally; prothorax similar though a trifle more transverse and similarly sparsely and strongly, though not coarsely, punctate, more sparsely so laterally and with much less difference in the size of the larger and smaller punctures, the sides less abruptly, more declivously and somewhat more broadly explanate; elytra similar though not at all longer than wide, the punctures throughout similarly sparse but not quite so coarse; prosternal process slightly more strongly constricted. Length 5.6–6.5 mm.; width 3.6–4.1 mm. Redondo.....**scolopax** n. sp.

11 — Body stout, oblong, but little longer than wide, dark piceo-testaceous throughout; head small, scarcely more than a third as wide as the prothorax, densely punctate throughout, more coarsely behind, more transversely rugose and medially swollen before, the transverse suture; antennæ relatively more dilated apically or slender basally than usual; prothorax fully two and three-fourths times as wide as its median length, inflated and with strongly rounded sides basally, the sides very strongly converging and less arcuate thence to the apex, the angles narrowly rounded; surface closely, rather coarsely punctate, the latter not differing in density but composed of mingled coarse and finer punctures laterally, broadly declivo-explanate at the sides, the bead fine but strong; elytra barely as long as wide, very broadly rounded behind from above, the sides becoming subparallel and broadly arcuate in about basal half, the sculpture more coarsely and closely muricate than in the two preceding species, granulose and smaller posteriorly but having the surface between the granules not at all alutaceous; prosternum coarsely and densely punctured, the process strongly constricted; abdomen finely and sparsely punctured medially. Length 4.9–7.0 mm.; width 3.0–4.5 mm. San Diego, — G. W. Dunn. **amplicollis** n. sp.

Body similarly very stout and subquadrate, larger in size, deep black in color, the antennæ pale, the legs piceous, similarly polished throughout; head larger, fully two-fifths as wide as the prothorax, similarly densely sculptured, coarsely behind the suture, rather more loosely so and finely rugose before the latter, the antennæ nearly similar; prothorax a little less transverse, the sides similarly inflated posteriorly but less converging anteriorly, the angles distinctly though not very broadly rounded; surface similarly coarsely and closely, though a little more loosely, punctate, less abruptly and rather less widely declivo-explanate laterally, the bead similarly strong but not so elevated; elytra similar, scarcely as long as wide, the sides becoming parallel and more feebly arcuate before the middle, the very coarse sculpture almost similar; prosternal process somewhat less strongly constricted, the neck about two-thirds as wide as the rounded and dilated posterior portion;

abdomen rather strongly, moderately sparsely punctate, the last segment densely. Length 7.6 mm.; width 5.0 mm. San Diego. Taken by the writer on the ocean beach.....**latus** Csy.

12 — Body broadly oblong-elliptical, moderately convex, piceous-black, the surface polished; epistoma broadly sinuate; antennæ with a 3-jointed club; prothorax equal in width to the elytra, a little more than twice as wide as its median length, widest immediately before the base, the sides rather feebly arcuate and strongly convergent, moderately densely, evenly punctate throughout; elytra twice as long as the median line of the prothorax, not longer than wide, equally densely but more finely punctate than the pronotum, the punctures not in the least asperate on the disk and only very feebly so on the declivity and along the lateral margin; process of the first anterior tarsal joint extending under the next three; marginal fringe of the prothorax noticeably shorter and finer than in any of the foregoing species. Length 7.0 mm.; width 5.0 mm. Island of San Nicolas.....**pacificus** Fall

Body very convex, piceous-black, the legs and elytra brown; epistoma broadly sinuate; antennal club 4-jointed; prothorax similar in outline to that of *pacificus* but shorter, the surface subopaque, densely and coarsely punctate; elytra shining, finely, densely punctate, without trace of asperity; process of the first anterior tarsal joint extending beneath the next two; marginal fringe longer than in *pacificus* but thinner than usual. Length 6.5–7.0 mm.; width 4.0–4.5 mm. Island of San Clemente.....**remotus** Fall

Seven of the above species are represented by large and very complete series, showing with unmistakable clearness that they are truly delimited from each other and in scarcely any way opinionative; intermediate individuals are in fact wholly wanting. The laws of intraspecific variation can be observed so readily from these series, furthermore, that there can be little or no doubt concerning the specific validity of those at present represented by one or two specimens. Some of the species vary prodigiously in the size of the body, to an exceptional degree indeed, even among the Coniontinæ, and there is a very remarkable inconstancy in the development of the scutellum, which varies from quite distinct to wholly obsolete within the limits of probably all the species; Lacordaire records a corresponding inconstancy in one species of the Praocini (Gen. Col. V, p. 216). In fact the scutellum is not very constant anywhere in the Coniontinæ, except in *Cœlotaxis*, where it is never more than vestigial or very minute, and that in a group of genera where, elsewhere, it has its maximum development, giving

Cœlotaxis a notable isolation among the genera more closely affiliated with *Coniontis*. It would appear almost certain that the radically different elytral sculpture of the last two species of the table, taken in connection with the more feebly developed burrowing habits, as recorded by Mr. Fall (Can. Ent., 1897, p. 242), is an ample reason for considering them at least subgenerically removed from the normal forms.

Cœlomorpha Csy.

This genus, while allied rather closely to *Cœlus*, differs in a number of important structural characters, such as the 10-jointed antennæ with more abbreviated basal joint, in the less transverse and virtually unemarginate eyes, which are similarly very coarsely faceted, in the very feeble transverse epistomal suture, in certain features of the prothorax, which, though possessing the coriaceous basal margin of *Cœlus*, has the basal angles rounded and the side margins without vestige of a beaded edge, and in its more slender legs, all the tibiæ, however, being similarly dilated at apex. The process of the first anterior tarsal joint is small, though slender, and very much less developed than in *Cœlus*. The scutellum is very minute and similarly triangular. The species, which are the smallest of the subfamily Coniontinæ, resemble *Cœlus* altogether in habits and facies and may be described as follows: —

Form oblong-oval, strongly convex, rather shining, black to dark rufotestaceous, the sides of the body bristling with coarse and erect but only moderately dense fusco-flavate setæ; head quite evidently less than half as wide as the prothorax, rather closely, finely and very muricately punctate, not transversely impressed at the suture, the epistoma not tumid, the emargination rather deep and abruptly formed, circularly rounded, the surface bristling throughout with stiff erect setæ; prothorax two and two-thirds times as wide as its median length, the sides subevenly and moderately rounded, a little more converging apically, the apex very deeply sinuate, with the angles narrowly rounded; base broadly, evenly and feebly arcuate, the angles very broadly rounded; surface with a few scattered punctures, almost wholly impunctate before the middle medially, more closely, asperately punctate, broadly declivo-explanate and bristling with stiff erect setæ laterally; elytra just visibly longer than wide, at the middle about a fifth wider than the prothorax, very broadly rounded behind from above, the sides parallel and broadly arcuate; surface as in *Cœlus* but with the sculpture very

feeble, sparse and faintly muricate, more granuliform on the declivity though still feeble; epipleuræ broader medially than at base, rapidly becoming narrow posteriorly; prosternal process moderately constricted; abdomen finely, sparsely punctate, the last segment not at all more coarsely or closely so; basal joint of the hind tarsi but little longer than the next two combined. Length 2.8–3.4 mm.; width 1.65–1.85 mm. (♂, ♀). Lower California. **maritima** Csy.

Form more broadly and more regularly subelliptic, less oblong, larger in size, shining, pale flavo-testaceous in color, similar in pubescence and in the bristling setæ of the head and sides of the body; head relatively a little smaller, otherwise nearly similar; prothorax almost three times as wide as its median length, the lateral length exceeding the median much more markedly than in *maritima*, the sides evenly and rather strongly arcuate, more converging from near the base to the apex than in the preceding, the surface almost similarly sculptured; elytra at basal third fully a sixth wider than the prothorax, inflated basally, more narrowed thence posteriorly and more narrowly rounded apically than in *maritima*, the sides more arcuate; surface nearly similar though somewhat more strongly muricate, approaching more closely the sculpture of *Cœlus;* under surface and legs similar, the anterior tibiæ with very long erect setæ internally, the posterior with shorter but more numerous and very stiff erect setæ externally and a few much less conspicuous internally. Length 3.8 mm.; width 2.2 mm. (♀). Lower California.....**pallens** n. sp.

The material serving for the above descriptions was collected by Mr. G. W. Dunn in various unrecorded parts of Lower California.

The species above defined, as well as those of *Cœlus*, *Coniontis* and in fact quite generally throughout the subfamily, differ from each other not so much by reason of any clearly defined peculiarities of structure, as in a certain characteristic habitus due to the summation of many minor features, such as general form and outline, size, sculpture and vestiture. The study of large series, where available, shows that this composite facies is as persistent as elsewhere in the Coleoptera, and, in my opinion, the various described forms are constant and true-breeding, conforming to the usual definition of a species.

ADDENDA.

I.

Having recently received a number of species of Praocini and Nycteliini from Mr. Rolle, it becomes evident, even upon cursory examination, that the subfamily Coniontinæ should include both of these tribes and that the definition of the subfamily previously given must be so generalized as to receive them. The hind coxæ, for example, very extended, oblique and comparatively slender in the North American tribes, become much more abbreviated, subtransverse and ovoidal in the South American groups, having there very nearly the prevailing form of the Asidinæ. The isolation of the Coniontinæ as a subfamily will therefore depend, as in so many other subdivisions of the Tenebrionidæ, upon the peculiar combination of a number of characters, no one of which is absolutely constant but together constituting a characteristic facies or habitus. Among the more salient of these subfamily features may be mentioned antennal structure, prolongation backward of the posterior thoracic angles, porrect prosternal process, more or less pronounced obliquity of the hind coxæ, sparsely spinulose tarsi, rather small, emarginate and obtrapezoidal mentum, generally exposed and densely chitinized emarginate ligula, bifid mandibles, sinuate clypeus and exposed emarginate labrum, well developed tibial spurs and frequent basal dilation of the epipleuræ. I would propose the following arrangement of such tribes as are represented by the material in my collection: —

Antennæ long and slender, with or without a loose 3-jointed club...2

Antennæ very small, compact, with a feeble, compact and fusoid club, the basal joint unusually developed.....5

2 — Ligula wholly concealed; gular sutures united and forming a single furrow for a considerable distance behind the mentum; legs long; posterior coxæ nearly as in *Asida*, widely separated and subtransversely oval; antennæ peculiarly hispid, not clavate, the last joint smaller, oval, pointed; elytra widely embracing the body, the epipleuræ dilated basally. Southern South America.
***Nycteliini**

Ligula largely exposed, densely chitinized; legs much shorter.....3

3 — Gular sutures uniting anteriorly, forming a single groove for a short distance behind the mentum; hind coxæ feebly oblique, long and cuneiform, distinctly separated, the abdominal process truncate; antennæ with a 3-jointed club; elytra widely embracing the body, the epipleuræ abruptly dilated at base. Tropical Atlantic North America.....**Branchini**

Gular sutures rapidly diverging apically, delimiting a transverse piece at the base of the mentum.....4

4 — Hind coxæ oval, subtransverse, distinctly separated though very moderately, the abdominal process truncate to rounded; elytra rather widely embracing the sides of the body, the epipleuræ rapidly dilated at base; antennæ with a 3-jointed club. Peru and Chile.....***Praocini**

Hind coxæ slender, much longer, strongly oblique and cuneiform, narrowly separated, the abdominal process acute or narrowly rounded; elytra widely to very narrowly embracing the sides of the body, the epipleuræ sometimes abruptly dilated at base; antennæ with a 3-jointed club.[1] Western temperate North America. **Coniontini**

5 — Ligula and gular sutures nearly as in Coniontini, the hind coxæ also similar; fourth abdominal segment relatively much less abbreviated, somewhat as in *Praocis;* pronotum differing from any of the preceding tribes in having a coriaceous basal margin; elytra narrowly embracing the sides of the body, never acutely margined at the sides, resembling in this way only certain of the subtribe Eusatti of the Coniontini; legs rather short. Sea-beaches of Southern California.....**Cœlini**

The gular sutures in Coniontini are rather inconstant, sometimes being very distinct behind the mentum and sometimes wholly obsolete; it was this inconstancy that occupied my attention when on page 54 (ante), I stated that these gular characters seemed to be rather equivocal in separating the Coniontini and Branchini, but I am now convinced that they will serve this purpose as suggested by LeConte. The tribe Nycteliini, as outlined above, will comprise at least two genera which may be defined as follows: —

[1] In the Coniontini the antennal club becomes a very variable feature. In the subtribe Coniontes the antennæ have an obvious, though feebly enlarged, 3-jointed club. In the Eusatti, however, the character is very inconstant, *Discodemus* and *Megasattus* having no trace of a terminal club any more than in *Nyctelia; Nesostes* and *Sphæriontis* have a feeble 3-jointed club, but *Eusattus* is composite, *dubius* having an obvious club of three joints, while the species from *productus* to the end of the genus have no trace of an apical enlargement. I think therefore that the genus *Conipinus*, for *dubius*, *nanus* and *oblongulus* may have to be maintained.

Form oval, the hind body not inflated, the elytra deeply striate, the sides of the prothorax fimbriate; habits fossorial. Atlantic Argentina. [Type *Zophosis nodosa* Germ.].....***Nyctelia**

Form ovoidal, the hind body much inflated, the elytra not striate; sides of the prothorax not fimbriate; habits non-fossorial. Southern Andes. [Type *N. explanata* n. sp.].....***Nyctelioma**

The body in *Nyctelia* Latr., is smaller than in *Nyctelioma* and there can be but little doubt that the habits are fossorial as in *Cœlus* and other fimbriate species, including certain Praocids. The type of *Nyctelioma* (n. gen.) may be described as follows:

Form convex, deep black, glabrous, rather strongly shining; head with some scattered coarse punctures laterally, the surface broadly impressed along the sides; prothorax a little more than twice as wide as its median length, densely aureo-fimbriate at apex and base, the sides parallel and almost straight nearly to the middle, then broadly rounding, becoming strongly converging and straight anteriorly, the apical sinus transverse at the bottom, the angles porrect, acute and well defined; base strongly, evenly bisinuate, the surface gradually and feebly convex medially, with some sparsely scattered punctures apically and broadly toward the sides, the marginal bead fine, obliterated behind the middle; scutellum wholly obsolete; elytra dilated, oval, at the middle nearly a third wider than the prothorax, a little longer than wide, produced at tip, evenly convex, gradually and rather broadly explanate at the sides before the middle, the margin thickened and rugose; surface smooth, even, with some small and widely scattered granules which become lineate in arrangement suturally and apically; hypomera with some minute, sparse, setigerous granules, smooth and polished, the prosternum smooth, becoming rugose medially and throughout the process, the latter rounded and thickly though feebly beaded about its entire contour. Length 17.5 mm.; width 11.2 mm. Argentina (Mendoza)..... ***explanata** n. sp.

The above species is allied to *latissima* Bl., but differs in having no trace of undulation along the sides of the elytra. Of a species called *latissima* Bl., Mr. Rolle sent me a considerable number of examples which differ among themselves in very confusing manner, showing that the delimitation of species in this genus is fully as difficult as in any part of *Coniontis*.

II.

Dr. Georg Seidlitz (Ber. wiss. Leist. Ent., 1905, p. 162), finds some fault with my recent papers because of the omission

of bibliographic references, in contrariety with usual custom in systematic works of this character. I can only state, in reply to this, that those who are engaged in observing and recording new facts in the vast and inexhaustible realm of nature in which we find ourselves, have but little time for finding out what others have done, except enough to avoid the duplication of names or to point out an occasional error, for it seems to be far more incumbent upon us — that is many of us, to correct the errors of our esteemed coworkers than to allude to anything good that they may be guilty of, leaving the recording of what has been accomplished to those having special aptitude and taste for such matters. The vocation of the bibliographer, of whom the late H. Carrington Bolton was one of the highest types, is a most important and useful one, and we all hail with delight every new catalogue giving dates and references to places of publication. But bibliography is becoming a specialty, like everything else, and it is doubtful if any careful bibliographer would accept the references and dates published by a taxonomic specialist, but would go to original sources for such data, so that work of this kind performed with considerable loss of time by the searcher for basic facts, would have to be reduplicated in any event.

In this connection it would evidently be better if figures could be given of every described species, but these, in order to be useful, must be rigorously exact and, as the original investigator cannot as a rule spare the time and extra tax upon the eyes to do this work, it must also be done by another very helpful specialist, known as the biologic artist or draftsman, and it becomes simply a question of halting all original scientific inquiry or publishing without illustrations, for entomological artists are almost as rare as the proverbial *dentes gallinarum*, and those that we have in this country are continuously employed in museums at fixed salaries and consequently inaccessible to the amateur, to whom scientific advancement has hitherto been in large part due.

While referring to the subject of type figures, it should be added that some Zoölogical Congresses have gone so far as to state that descriptions of new species, more especially con-

chological, unaccompanied by an illustrative drawing, shall not be considered valid, — a wholly impossible and illogical dictum, as a good description in words is not increased a particle in value by a poor figure, and the degree of excellence which the figure must possess is not stated definitely in the edicts of the congress. Another congressional dictum, to the effect that no description of a new species, more especially botanical, can be considered valid that does not involve at least a short Latin diagnosis, is equally illogical and absurd. A description following a name properly formed and printed in Roman characters, written wholly in Japanese or in any other decipherable language, would be perfectly valid. This might be very inconvenient for European taxonomists, it is true, tending to halt scientific progress until the descriptions could be translated, but it cannot properly be assumed that every investigator of nature must be familiar with some particular language as a condition for the recognition and acceptance of his work, and, furthermore, to be of any real value a description must extend beyond the few words of the old-fashioned diagnosis.

III.

Remarks and Corrections Relating to the Revision of the Tentyriinæ in the Preceding Volume of these Proceedings.

Page 289 — The genus *Ditaphronotus* was added to the table after the latter had been drawn up and was inadvertently given an erroneous position. It should come immediately after *Hylocrinus*, under the number "10" and referred to previously under "7 — Surface glabrous."

Page 365 — The original type of *Auchmobius lævis* Lec., was lost at sea, together with the original type of *Cryptadius inflatus* and some other species, while being sent by LeConte to Lacordaire for study.

Page 395 — The word "female" in the first line of the description of *plumbeus* should read *male*. It was the impression of LeConte that the two thoracic ridges of *Epitragus* (*Bothrotes*) pertain to the male and that the pronotum of the female was even in convexity. The facts are the reverse of this, but I

neglected to change the language of the original description in that respect.

Page 463 — For "*reticulatus*," in the 7th line, read *nodulosus*.

Page 499 — For "delapidated," in the 20th line, read *dilapidated*.

Page 522 — For "W. F. Rainbow," in the 2d line under IV, read *W. I. Rainbow*.

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