

**On certain genera of Staphylinidæ
OXYTELINI, PIESTIDÆ, and MICROPEPLIDÆ,
as represented in the fauna of the United States.**

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OXYTELINI.

Having had recent occasion to arrange the species of *Bledius* in my collection, I perceived the necessity of grouping them in a natural manner in order to exhibit more clearly the relations between allied species in different parts of the country. As many of them are found only in the immediate neighborhood of the ocean-shore, or on contiguous salt marsh, it is evident, that if allied species occur inland at remote distances, they indicate the former presence of ocean water in those regions, and the divergence between the two forms will enable us to get some idea of the rapidity of change of structure in these instances, from the time when their homogeneous ancestors were separated and exposed to different influences by the progress of geological changes.

I would take occasion here to confirm the excellent remarks of Dr. David Sharp on the great value of sexual characters for the separation of nearly allied species in many of the genera of Staphylinidæ. I know in fact, of no other family of Coleoptera, in which forms at first sight almost undistinguishable may by the study of these characters, be most readily recognized.

Concerning these secondary sexual characters, which in the Oxytelini affect partly the head, partly the last two or three ventral segments, I have two observations to make:

1st. That in each group containing several species allied together by great natural resemblances, there will be found a gradation from those in which sexual characters are strongly expressed, to those in which they become trifling, or imperceptible.

2d. That where the sexual differences are strongly expressed at one extremity of the body, there is a diminution of the differences at the other end; thus indicating a polar action of the organizing influence, of such kind that when it manifests itself in one region of the body, it is correspondingly diminished at the other. This is not of the nature of correlation of growth, as ordinarily exhibited, by which an organ grows by appropriation of the material which would otherwise be divided between it and neighboring organs, but is more akin to

that localization of power, which is so frequently mentioned by Prof. Dana in his works on Cephalization.

Renewed examination of *Distemmus Argus*, shows it to be an Omalium, nearly related to the European *O. planum*. The first four joints of the tarsi are so short and closely united as to appear like two joints as in *Trogophlæus*, and the four together are barely one-third as long as the last joint. It therefore corresponds with *Phlæostiba* Thomson. Without having studied the tribe Omalini closely, I am inclined to think the narrow, depressed form, and the peculiar sculpture, which consists of anastomosing lines forming narrow meshes, would warrant the retention of this group of species as a distinct genus.

OXYPORUS Grav.

The following table will enable our species to be easily recognized. I have two new species to add to those mentioned and tabulated by Fauvel,* and only a few references to descriptions which are not cited in the Munich Catalogue.

Elytra with the sides finely rugose.....	2.
Elytra polished, with the usual striæ and punctures.....	3.
2.—Black, tibiæ and tarsi pale; elytra pale, suture and sides black.	
1. femoralis.	
Yellow, head, last two abdominal segments, and great part of elytra black.	
2. elegans , n. sp.	
3.—Legs black.....	4.
Legs yellow.....	6.
4.—Sides of prothorax much rounded.....	5.
Sides of prothorax feebly rounded, elytra pale, with suture, sides and narrow vitta black.....	3. major.
5.—Elytra bright reddish-yellow, outer apical angle black.....	4. rufipennis.
Elytra black.....	5. stygius.
6.—Hind angles of prothorax, as usual, not flattened.....	7.
Hind angles of prothorax flattened, rounded, concave beneath; rufous, head, two spots of prothorax, part of elytra, three last abdominal segments, and sides of metathorax black.....	11. quinquemaculatus.
7.—Elytra longer and wider than prothorax.....	8.
Elytra scarcely longer than prothorax; rufous, head, part of elytra, and tip of abdomen above and beneath black.....	10. lepidus , n. sp.
8.—Color variable, elytra pale with sides and suture black.....	6. vittatus.
Black above, pale yellow beneath.....	7. bicolor.
Rufous, sides of elytra fuscous.....	8. lateralis.
Rufous; spot of head, two of prothorax and part of dorsal surface of abdomen black; elytra black, each with a triangular rufous spot.	
9. occipitalis.	

* Marseul, Abeille, i, 369, (1864).

2. ***O. elegans***, n. sp.—Bright reddish yellow, head black; antennæ and palpi testaceous. Prothorax narrower behind, rounded on the sides. Elytra scarcely longer than the prothorax, with the sides finely rugose from near the middle to the tip; the pair of punctured striæ well impressed, and the inner one somewhat confused; the color is black, with the entire base, and a stripe extending from the base nearly to the tip bright yellow. Abdomen yellow, with the last two dorsal and ventral segments black. Length 8 mm; .32 inch.

Louisiana, Mr. A. Sallé.

4. ***O. rufipennis***, Lec. New Spec. Col. (Smithsonian 8vo).

This is perhaps only a color variation of the entirely black *O. stygicus*, Say, but as yet I have seen no intermediate specimens. There is no difference in form or sculpture.

7. ***O. bicolor***, Fauvel, Abeille, i, 371.

North Carolina; easily recognized by the black head prothorax and elytra, piceous dorsal segments paler at the sides, and the yellow under surface, palpi and legs. The antennæ are testaceous. This species resembles *O. vittatus* in form and sculpture, but the inner of the approximate elytral striæ is more confused, though the specimens do not accurately agree in this respect in either of the species.

In one specimen the head is larger and the sides of the prothorax less rounded; in another there is a faint brown elytral vitta. Possibly it is only a color variation of *O. vittatus*. o/

10. ***O. lepidus***, n. sp.—Elongate, bright rufo-testaceous, head black, occiput with a small brown spot. Prothorax narrowed behind, rounded on the sides. Elytra a little longer than the prothorax, very little wider; the pair of striæ well impressed; suture and lateral triangular spot blackish. Last two dorsal and ventral segments black, except the base of the penultimate which is rufous. Side pieces of metasternum black, base rufous. Length 7 mm; .28 inch.

New York, one specimen given me by Mr. Ulke; resembles in appearance *O. elegans*, but easily known by the outer apical part of the elytra being smooth, and by the penultimate ventral and dorsal segment being rufous at base.

OSORIUS Latr.

1. ***O. politus***, n. sp.—Cylindrical, black, head, prothorax and elytra polished, sparsely not coarsely punctured. Abdomen rather densely and rugosely punctured. Epistoma broadly emarginate in the arc of a circle, angles prominent acute. Legs blackish-brown. Gula deeply longitudinally impressed. Length 8.5 mm; .33 inch.

Hillsboro, Florida; one specimen. Messrs. Hubbard and Schwarz.

2. ***O. planifrons***, n. sp.—Cylindrical, black, shining, antennæ and legs reddish-brown. Head sparsely and finely punctured, very finely granulate, antennal tubercles and transverse occipital space smooth and polished; epistoma flattened, truncate, front angles minute, scarcely prominent. Prothorax

polished, sparsely, rather coarsely punctured with a wide dorsal smooth stripe. Elytra polished, sparsely and coarsely but not deeply punctured. Abdomen granulate, punctured. Gula narrowly but deeply channeled. Length 7 mm; .28 inch.

Southern States; two specimens. This species differs from *O. latipes* not only by the larger size, but by the much finer and sparser punctures of the head; and less numerous punctures of the prothorax and elytra; the front part of the head is also flattened and obliquely declivous, while in *O. latipes* it is feebly but regularly convex.

3. *O. latipes*, Er., Staph. 757; *Oxytelus lat.* Grav. Mon. 198; Oliv. Enc. Méth., viii, 816; *Molosoma lat.* Say, Tr. Am. Phil. Soc. iv, 462; ed. Lec. ii, 577.

Middle and Southern States, Kansas. Length 4 or 5 mm; .15—.20 inch. The smaller form was collected in Florida, by Messrs. Hubbard and Schwarz, and very frequently has red elytra.

HOLOTROCHUS Er.

1. *H. minor*, Fauvel, Ann. Ent. Soc. France, 1863, 437.

Three specimens from Florida, (Hubbard and Schwarz), one from South Carolina agree so closely with the description of this species that I am not warranted in considering them as distinct. The front tibiæ are not absolutely free from spines, but with a high power a row of fine distant slender spines may be seen, of which the largest is at the outer apical angle. Length 2.75 mm; .11 inch.

Dr. Sharp* has shown very beautifully the relations between this genus and *Lispinus* of the Piestini, from which it differs by the prominent and contiguous front coxæ.

I observe in addition, that in all Piestini the submentum is much larger and flatter, and defined behind by an angulated suture, while in *Osorius* and *Holotrochus* the transverse suture is nearly straight. By this character, *Ancæus* is shown to belong to the Piestini, though the front coxæ are contiguous and a little prominent. The form of this suture, however ceases to be even of generic value in *Bledius*, as will be seen below.

2. *H. levicanda*, *Lispinus levic.* Lec., New Spec. Col.

Illinois, New Mexico, Louisiana. This species is very closely allied to the preceding, but the elytra are nearly one-half longer than the prothorax, less deeply punctured; the dorsal segments are scarcely perceptibly punctulate. The antennæ are longer and less thickened towards the tip.

* Trans. Ent. Soc. London, 1876, 387.

BLEDIUS Leach.

The species of this genus may be naturally divided into several groups, which have been already in part recognized by Schiödte,* and described by him as distinct genera. The characters upon which these groups are defined have been determined by the study of very limited material, and will by no means serve for the natural arrangement of our species. The first dichotomous character of Schiödte:

I.—Terminal part of mandibles thick, with a strong sharp tooth behind the apex, etc.

II.—Terminal part of mandibles attenuated.

Would divide our large testaceous species which seem so closely allied as to be distinguished only by mandibular and abdominal characters, into two widely separated groups. The other characters used by that excellent observer are also of difficult observation, or visible with certainty only on dissection. I have therefore rejected them in great part and propose instead the following; the groups are named after the best known species pertaining to each.

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|--|-------------------------------|
| Prothorax with lateral edge well defined..... | 2. |
| Prothorax without lateral edge or prosternal sutures..... | I. MANDIBULARIS . |
| 2.—Prosternal sutures obliterated; fissures of front coxal cavities short, closed..... | 3. |
| Prosternal sutures distinct..... | 4. |
| 3.—Hind angles of prothorax wanting..... | II. ARMATUS . |
| Hind angles of prothorax obtuse..... | V. CORDATUS . |
| 4.—Fissure of front coxal cavities short, closed..... | III. SEMIFERRUGINEUS . |
| Fissure of front coxal cavities long, open..... | IV. ANNULARIS . |

Group. 1.—*mandibularis*.

The species of this group are of large or moderate size, brownish-testaceous, not shining, finely granulate, and not strongly punctured; the head is usually darker with a short impressed line at the vertex, and an elevation at the base of the antennæ; epistome truncate at tip, sometimes with a subapical tubercle, the mandibles are very long, the apical part in some long and slender, in others compressed, and rather suddenly narrowed near the tip; about the middle there is a large ascending tooth; the labrum is broadly emarginate. Prothorax broader than long, truncate in front, sides parallel, suddenly and strongly narrowed from the middle to the base, which is narrow, truncate and finely margined; hind angles wanting; disc convex, with a well-marked dorsal line; lateral edge indistinct; under surface convex, prosternal sutures not visible, external fissure of front coxal cavities

* Naturhist. Tidsskrift, 3d ser., iv, 171. (1866); Ann. Mag. Nat. Hist. 1867, 3d ser., xx, 31.

closed or open according to position of coxæ. Front and middle tibiæ triangular, with widely separated rows of long spines; hind tibiæ slender, fimbriate with a few very long hairs, and sparsely spinose. The abdominal segments are very finely alutaceous, not punctured above, finely and sparsely punctulate below.

The species of this group resemble each other very closely and might be readily confounded, if it were not for the differences in the gular process (submentum), and the sexual characters. In the neighborhood of the ocean they live in salt marshes, and their occurrence on both sides of the continent, with a closely allied form in the interior, indicates an origin and distribution similar to that of species of various genera already mentioned by me. I have interpreted such cases to be unmodified, or (in this instance), slightly modified survivals of ancient forms and probably from the cretaceous period.

- Submental transverse suture, angulated at the middle.....2.
 Submental transverse suture, straight.....3.
 2.—Gula with a very deep triangular excavation.....1. **gularis**, n. sp.
 Gula with a shallow excavation.....2. **pallipennis**.
 3.—Submentum excavated;

 Excavation deep, divided by a prominent ridge.....3. **fortis**, n. sp.

 Excavation wider, divided by a broad, flat elevation.

4. **mandibularis**.

 Excavation wider, flat at the bottom.....5. **brevideus**, n. sp.

 Excavation shallow, divided by a narrow median elevation.

6. **ferratus**, n. sp.

 Excavation small, shallow.....7. **jacobinus**, n. sp.

1. **B. gularis**.—Yellow-brown, not shining; head, mandibles, suture, diagonal tip of clytra, and last two abdominal segments blackish; apical part of mandibles slender, tooth very long; epistoma with a prominent subapical tubercle, or short horn, which is emarginate at tip; occiput with a deep transverse short impression, which is met by the short deep impressed line of the vertex; supra-antennal ridges prominent; submental suture angulated; submentum flat, strongly declivous; gula with a very deep triangular excavation. Length 7.5 mm; .30 inch.

♂.—Seventh ventral segment slightly sinuous at tip, eighth with two impressed lines converging in front, intermediate space corneous; ♀, eighth segment feebly impressed.

One ♂, Middle States; precise locality unknown; ♀, Illinois; Dr. Horn.

The sculpture is exactly as in *B. mandibularis*, from which it differs only by the punctures of the prothorax and back part of the head being stronger, and by the characters above mentioned.

2. **B. pallipennis**, Er. Staph., 779; *Oxytelus pall.*, Say, Journ. Ac. Nat. Sc. iii, 155; ed. Lec. ii, 100.—Yellow-brown, not shining; head and mandibles blackish, suture and tip of clytra fuscous; apical part of mandibles slender,

tooth very long; epistoma slightly elevated near the tip, with two small distant cusps, supra-antennal ridges prominent; vertex convex at the middle, with a short deep impressed line, transverse impression of the occiput obsolete; submental suture angulated; submentum slightly declivous, with a granulated space at the middle; gula with a shallow but sharply defined triangular impression. Length 9 mm; .35 inch.

♂.—Seventh ventral segment slightly sinuous at tip; eighth with two converging lines, which soon become parallel; intermediate space corneous; ♀, eighth ventral very feebly impressed.

One ♂, Nebraska; collected by Dr. F. V. Hayden; ♀, Illinois; Dr. Horn. The head and prothorax are punctured as in *B. gularis*, that is, more strongly than in *B. mandibularis*.

3. *B. fortis*, n. sp.—Blackish-brown, not shining, elytra reddish-brown; mandibles long and stout, apical portion broad, compressed, obliquely and strongly narrowed towards the tip; tooth broad and strong; epistoma truncate slightly convex, with a few small punctures each side; supra-antennal ridges strongly elevated; vertex feebly transversely concave, impressed line longer than in the other species, punctures very sparse and small. Prothorax sparsely finely punctured, dorsal line deep. Submental suture straight; submentum with a very deep excavation, which is almost divided by a narrow elevated ridge. Length 10 mm; .40 inch.

♂.—Seventh ventral segment slightly sinuous at tip; eighth with a deep triangular incision, not closed by membrane.

♀.—Submentum less deeply impressed; eighth ventral not incised.

One ♂, Galveston, Texas; ♀, Dr. Horn. The tooth of the mandibles of the ♀ is shorter and less prominent, and the body less robust; the elevation in the cavity of the submentum is broader, almost as in *B. mandibularis* ♂.

4. *B. mandibularis*, Er. Staph. 765.—Yellow-brown, not shining; head and mandibles blackish; apical part of mandibles compressed, suddenly narrowed near the tip, tooth very long; epistoma flat, supra-antennal ridges moderate; vertex broadly concave, with a short longitudinal impressed line, sparsely obsolete punctured behind; prothorax broader than long, sparsely irregularly and feebly punctured, dorsal line deep, entire; elytra finely not deeply punctulate, dusky along the suture; dorsal segments smooth, shining, tip sometimes darker; ventral segments sparsely punctulate; submental suture straight; submentum with a deep and broad excavation, the middle part of which is filled by a broad flat elevation. Length 7.5–10 mm; .30–.40 inch.

♂.—Seventh ventral segment slightly sinuate at tip; eighth with a deep acute triangular incision, the bottom of which is closed by membrane.

Abundant at New York, and other points on the Atlantic coast of the Middle States.

5. *B. brevidens*, n. sp.—This species is precisely similar in color and sculpture to *B. mandibularis*, but is less robust in form, and the tooth of the mandibles is short and oblique in both sexes. The cavity of the submentum is broad and flat, without any central elevation. Length 10 mm; .40 inch.

♂.—Eighth ventral segment with two distant slightly converging impressed lines; tip slightly emarginate, or rather, triangularly impressed.

New York, collections of Dr. Horn and myself. The differences are so obvious and the other characters so similar that a longer description is not needed. The tip of the abdomen is not darker in any of the specimens I have seen, nor is the suture dusky.

6. **B. ferratus**, n. sp.—Brown, not shining, antennæ, legs and elytra paler; mandibles with the apical part compressed, gradually narrowed from the tooth to the tip; tooth compressed, short, acute; epistoma slightly convex; frontal suture feebly angulated, with an obsolete cusp at the middle; supra-antennal ridges short, broad; back part of head rather strongly but sparsely punctured, line of vertex short. Prothorax rather strongly punctured, dorsal line deep. Elytra finely but more distinctly punctured than in the preceding four species, ventral segments more densely punctulate than in them; dorsal segments sparsely punctulate. Submentum excavated, with a small median elevation; submental suture straight, gula very deeply longitudinally impressed. Length 7.5 mm; .30 inch.

♂.—Eighth ventral segment with a deep narrow incision, closed by membrane. ♀.—Eighth segment rounded at tip.

San Diego, Cal.; three specimens, collected by Mr. G. R. Crotch; varies uniform yellowish-brown.

7. **B. jacobinus**, n. sp.—Brown, not shining, antennæ, legs and elytra paler; mandibles with the apical part compressed, gradually narrowed from the tooth to the tip; tooth not large, acute; head as in the preceding, except that the frontal suture is straight; prothorax strongly punctured, dorsal line entire. Elytra finely but more strongly punctured than in *B. ferratus*; dorsal and ventral segments as in that species; submentum with a small circular impression; submental suture straight, gula deeply impressed longitudinally. Length 4.8–7 mm; .19–.27 inch.

♂.—Seventh ventral segment broadly emarginate. ♀.—Seventh ventral truncate; eighth segment rounded in both sexes.

San Diego, Cal.; five specimens, Messrs. Crotch and Hardy.

Group 2.—*armatus*.

In this group the side margin of the prothorax is distinct, and the prosternal sutures are obliterated; the fissure of the anterior coxal cavities is always closed. The submentum is flat, never excavated, and the longitudinal gular line is well-impressed. The mandibles are stout, not very long, with one or two broad teeth on the inner side; the apical part is rather short and not slender. The front and middle tibiæ are compressed, fringed with long spines arranged in widely separated rows. The sides of the prothorax are nearly parallel for three-fourths the length, then strongly rounded to the base, without any hind angles. The sculpture of the prothorax is coarse, and the elytra are usually strongly punctured. The dorsal surface of the abdomen is nearly smooth, the ventral is densely but finely punctured.

So far as I know, these species are not found in salt marshes, but frequent the borders of streams and ponds.

- Flanks of prothorax concave along the side margin.....2.
 Flanks of prothorax convex.....8. **armatus**.
 2.—Under surface of prothorax with an impressed line parallel with the margin.....3.
 Under surface of prothorax without impressed line.....9. **cribricollis**.
 3.—Elytra densely punctured.....10. **cuspidatus**.
 Elytra sparsely punctured.....11. **politus**.
 Elytra finely punctured; punctures and dorsal line of prothorax indistinct.....12. **flavipennis**.

8. **B. armatus**, Er. Staph. 779; *Oxytelus arm.*, Say, Journ. Ac. Nat. Sc. Phila. iii, 155; ed. Lec. ii, 100.—Dark chestnut-brown, sometimes blackish-brown, somewhat shining. Head finely granulate, with an impressed line from the frontal suture to the vertex. Antennæ with the sixth and seventh joints gradually larger. Mandibles with a strong tooth near the tip. Prothorax not wider than long, front angles rounded, sides parallel, then rounded into the base, without angles; disc coarsely and sparsely punctured, very finely granulate, dorsal line deep. Elytra convex, usually less dark, rather shining, deeply rather densely punctured, sutural angle rounded. Dorsal segments feebly and sparsely punctulate; ventral segments finely rather densely punctured. Side margin of prothorax fine, but distinct, flanks not concave. Length 5—7.5 mm; .20—.25 inch.

♂.—Supra-antennal ridges strong and acute; anterior angles of epistoma elevated into acute cusps; vertex with a tubercle which is divided by the longitudinal line.

♀.—Supra-antennal ridges broader and smaller; epistomal cusps obsolete; vertical tubercle very feeble. There are no differences in the last ventral segments.

Kansas, Arizona, Nevada, California. The specimens collected by Say were evidently immature, since he describes the species as pale reddish-brown with black head.

9. **B. cribricollis**, n. sp.—Brown or blackish-brown, rather shining, antennæ ferruginous. Head scarcely perceptibly granulate, impressed line extending from the frontal suture to the vertex. Prothorax a little longer than wide, front angles rounded, sides parallel, then rounded into the base, without hind angles; surface nearly smooth, with deep coarse scattered punctures, dorsal line deep. Elytra densely and finely punctured. Dorsal segments nearly smooth, ventral finely and sparsely punctured. Margin of prothorax acute, flanks deeply concave beneath, without line parallel to the margin. Mandibles with a large tooth near the tip. Length 4 mm; .15 inch.

♂.—Epistoma with the anterior angles elevated into obtuse cusps; supra-antennal ridges acutely elevated; front convexly elevated near the epistoma, convexity divided by the longitudinal line.

♀.—Epistoma not cuspidate; supra-antennal ridges less elevated, frontal convexity not apparent, ventral segments alike in both sexes.

San Diego, California; three specimens collected by Mr. G. R. Crotch.

10. **B. cuspidatus**, n. sp.—Blackish-brown, prothorax red-brown, elytra, antennæ, palpi and legs yellow-brown. Head finely granulated, with a large puncture on the vertex. Prothorax more finely granulated, somewhat shining, convex, punctures rather large, scattered, dorsal line fine; scarcely as long as wide, front angles rounded, sides parallel, then rounded into the base, without hind angles. Elytra brownish-yellow, suture dusky, finely rather densely punctured, shining. Dorsal segments smooth, shining; ventral densely finely punctured. Margin of prothorax acute, flanks narrowly but deeply concave, with a very faint impressed line parallel with the margin. Mandibles bisinuate on the inner edge, indicating two broad, but feeble teeth. Length 5.5 mm; 2.2 inch.

♂.—Epistoma with the anterior angles elevated into acute cusps; supra-antennal ridges acutely elevated; a very small tubercle at the middle of the vertex; eighth ventral segment acutely triangularly incised, and with a fine impressed line.

♀.—Cusps of epistoma and supra-antennal ridges less developed; eighth ventral segment rounded at tip.

Dacota; one pair kindly given me by Mr. Ulke.

11. **B. politus**, Er. Staph. 766.—Shining, piceous, prothorax ferruginous, elytra, antennæ, palpi and legs brownish-yellow. Head finely granulate, opaque, without any impression on the vertex. Prothorax not longer than wide, convex, polished, sparsely and coarsely punctured, dorsal line deep; sides parallel, rounded into the base, without hind angles. Elytra shining, coarsely and sparsely punctured. Dorsal segments smooth, ventral sparsely finely punctulate. Margin of prothorax acute, flanks narrowly but deeply concave, and with a distinct impressed line parallel to the margin; an impression also extends transversely from the fissure of the front coxal cavities to this line, but the fissure is not open, and the prosternal suture is not visible. Length 3.7 mm; .15 inch.

One female, Coney Island, near New York, July. Erichson's description agrees with this specimen except that the characters of the head indicate a male, with the epistomal cusps, elevated supra-antennal ridges, and small vertical tubercles.

12. **B. flavipennis**, Lec., New Spec. Col. (Smithsonian 8vo), 52.—Dark-brown, base of antennæ, elytra and legs yellow-brown; prothorax reddish-brown. Mandibles with two obtuse teeth on the inner edge. Head opaque, finely granulate, with a short impression on the vertex. Prothorax not shining, not longer than wide, sides parallel, rounded behind into the base, as in the other members of this group, feebly and sparsely punctured, dorsal line indistinct. Elytra shining, finely but strongly punctured, suture dusky. Abdomen with the tip paler, dorsal segments nearly smooth, ventral punctured. Side margin of prothorax acute, flanks narrowly concave, with an indistinct line parallel to the margin. Length 4.2–5.3 mm; .17–.21 inch.

♂.—Front angles of the epistoma produced into slender erect horns, recurved at tip; supra-antennal ridges acutely and strongly elevated; vertex with a tubercle which is divided by the short impressed line.

♀.—Front angles of epistoma acute but not elevated; supra-antennal ridges and vertical tubercle less developed. The last ventral segments are alike in both sexes.

San Diego, California; twelve specimens.

Group 3.—*semiferrugineus*.

In the species of this group, which is the best represented in our fauna, the side margin of the prothorax is acute and the flanks concave; the fissure of the front coxal cavities is short and closed; the prosternal sutures run from the outer end of the fissure towards the anterior angles of the pronotum, so that the side pieces (episterna) are distinctly triangular. The mandibles are stout, strongly toothed near the tip, which is compressed and gradually narrowed. The rows of spines on the front tibiæ are widely separated; the hind tibiæ are long and slender, fimbriate with long sparse hairs and a few fine spines.

- Prothoracic episterna very distinctly triangular, sutures directed to the front angles of the pronotum.....2.
 Prothoracic episterna not triangular, sutures parallel with the side margin of the under surface of the prothorax.....6.
 2.—Sides of prothorax very much rounded.....3.
 Sides of prothorax slightly rounded, nearly parallel in front.....5.
 3.—Head not or obsoletely punctured.....4.
 Head coarsely punctured.....13. **semiferrugineus**.
 4.—Prothorax wider than long, densely punctured...14. **rotundicollis**, n. sp.
 Prothorax not wider than long, more coarsely punctured....15. **fumatus**.
 5.—Larger, head shining, sparsely punctured.....16. **nitidiceps**, n. sp.
 Smaller, head opaque, impunctured.....17. **opacifrons**, n. sp.
 Testaceous, dorsal line of prothorax deep.....18. **rubiginosus**.
 6.—Ferruginous, head and prothorax darker, tip of abdomen black; dorsal line of prothorax faint.....19. **analis**.
 Blackish-brown, elytra, antennæ and legs brown; dorsal line of prothorax wanting.....20. **nitidicollis**.

13. **B. semiferrugineus**, Lec. New Sp. Col. (Smithsonian 8vo), 52.—Chestnut-brown, shining, elytra paler, legs yellow-brown. Head coarsely punctured, with a smooth space on the vertex, in the middle of which is a large deep puncture. Prothorax nearly globose, truncate in front, coarsely rather densely punctured, dorsal line deep. Elytra deeply and rather densely, but not coarsely punctured. Dorsal segments sparsely punctulate; ventral also sparsely punctulate. Side margin of prothorax fine but distinct, flanks convex, sutures of prosternum reaching the front angles of the pronotum; episterna smooth, triangular; prosternum opaque, feebly punctured. Mandibles with a large tooth near the tip; apical part rather slender. Length 4.5 mm; .18 inch.

♂.—Sixth ventral segment broadly emarginate in an arc of a circle; eighth segment not incised nor impressed. ♀.—Sixth ventral truncate.

Middle States, Michigan, Florida.

14. **B. rotundicollis**, n. sp.—Chestnut-brown, tip of abdomen and legs brownish-yellow. Head opaque, finely granulate, not punctured; vertex obsoletely foveate. Prothorax wider than long, rounded, truncate in front, deeply rather densely punctured, dorsal line distinct. Elytra densely and rather finely punctured. Dorsal segments sparsely punctulate; ventral finely rather densely

punctured. Side margin of prothorax fine, flanks convex, episterna triangular, subopaque; prosternum feebly punctured. Length 7 mm; .27 inch.

♂.—Sixth ventral segment deeply emarginate in the arc of a circle; eighth acutely incised at tip; incisura closed by membrane.

One specimen; Fort Pierre, Nebraska.

15. **B. fumatus**. Lec. New Sp. Col. (Smithsonian 8vo), 52.—Chestnut-brown, shining, elytra red-brown; legs and usually the tip of the abdomen brownish-yellow. Head opaque, finely granulate, obsoletely sparsely punctulate, with a small vertical puncture. Prothorax not wider than long, rounded, truncate in front, strongly punctured, dorsal line deep. Elytra strongly but less coarsely punctured. Dorsal segments sparsely punctulate, ventral segments finely punctured. Side margin and flanks of prothorax as in the preceding, but the episterna are less convex, and even slightly concave along the side margin. Length 5–6 mm; .20–.24 inch.

♂.—Sixth ventral segment broadly and obtusely emarginate; eighth not incised. ♀.—Sixth ventral truncate.

Illinois and Canada; four specimens.

16. **B. nitidiceps**, n. sp.—Black, shining, antennæ, legs and elytra red-brown. Head shining, sparsely punctured, vertex somewhat elevated, with a large puncture at the middle. Prothorax longer than wide, sides nearly straight for three-fourths the length, less suddenly rounded behind than usual, surface polished, punctures deep, scattered, not very coarse; dorsal line deep. Elytra strongly punctured. Dorsal segments finely punctured with longer and more numerous hairs than usual; ventrals finely punctured. Side margin of prothorax fine, episterna flat, triangular, slightly concave along the margin. Length 7 mm; .28 inch.

Los Angeles and Wilmington, Cal.; Mr. Crotch. No sexual differences observed.

17. **B. opacifrons**, n. sp.—Black, less shining; antennæ and legs brown. Head opaque, finely granulate, impunctured, with a small fovea at the vertex. Prothorax with sides nearly parallel, then rounded into the base, sparsely punctured, finely granulate, dorsal line fine. Elytra coarsely not densely punctured. Dorsal segments feebly punctulate, ventrals finely punctured, tip brown. Side margin of prothorax acute, flanks concave along the margin; episterna triangular. Length 4 mm; .16 inch.

Los Angeles and San Diego, Cal.; Mr. Crotch. No sexual differences observed in three specimens examined.

18. **B. rubiginosus**, Er. Staph. 765.—Rufo-testaceous, somewhat shining. Head darker, sparsely and feebly punctured, almost imperceptibly granulate. Prothorax coarsely, rather densely punctured, dorsal line deep. Elytra deeply rather densely punctured. Dorsal segments sparsely punctulate; ventrals more distinctly finely punctured. Side margin of prothorax fine, episterna triangular, slightly concave along the margin. Mandibles compressed, toothed so as to form a right angle near the tip, which is not very slender. Length 5.2 mm; .21 inch.

South Carolina. No sexual differences seen in eight specimens examined.

19. **B. analis**, Lec. New Sp. Col. (Smithsonian 8vo), 52.—Ferruginous, rather shining, head, prothorax and last two dorsal segments blackish-brown; elytra with suture dusky. Head finely granulate, opaque, sparsely not deeply punctured. Prothorax as wide as long, sides feebly rounded for three-fourths the length, then strongly rounded into the base; coarsely not sparsely punctured, dorsal line faint. Elytra deeply punctured. Dorsal segments nearly smooth, ventrals sparsely punctulate. Prosternal sutures nearly parallel with the side margin, which is slightly concave. Length 4 mm; .16 inch.

♂.—Seventh ventral segment with a small triangular apical impression, eighth broadly emarginate.

♀.—Seventh ventral segment sinuate at tip, slightly prominent at the middle, eighth triangularly impressed.

Illinois and Missouri.

20. **B. nitidicollis**, Lec. New Sp. Col. (Smithsonian 8vo), 52.—Dark-brown, antennæ, legs, elytra and tip of abdomen red-brown. Head finely granulated, sparsely punctured. Prothorax polished, coarsely not densely punctured, with a smooth dorsal narrow space, but no impressed line. Elytra strongly punctured. Dorsal segments slightly punctulate, ventrals finely sparsely punctured. Side margin of prothorax acute, flanks feebly concave along the side, episterna trapezoidal, sutures of prosternum slightly oblique. Length 3 mm; .12 inch.

New York, Michigan and Missouri; many specimens, without sexual difference. The hind angles of the thorax though very obtuse and rounded are perceptible, whereby this species differs from all the foregoing and establishes a transition to the next group. It resembles in fact *B. annularis*, but differs by the dorsal prothoracic line being absent; the coxal fissures shorter and not open, and the episterna of the prothorax wider and less concave.

Group 4.—*annularis*.

In the species of this group the side margin of the prothorax is acute, and the flanks more or less concave along the side; the fissure of the front coxal cavities is open and large, extending two-thirds way from the coxa to the side; the prosternal sutures are straight, and the episterna rather narrow and parallel. The mandibles have two acute teeth on the inner side, and the apical part is moderately long and slender. The hind angles of the prothorax are usually very obtuse and rounded, but somewhat apparent, which is not the case in the preceding groups; though in other species the sides are rounded into the base without any angles. The frontal suture is usually very fine and frequently indistinct, though I have not been able to use this character for specific distinction.

Head and prothorax finely granulate; the former flattened.....2.
 Head and prothorax polished; the former convex; epistoma with a small apical tubercle; prothorax without hind angles.....12.

- 2.—Prothorax without hind angles.....3.
 Prothorax with hind angles obtuse, distinct except in sp. 24, 27.....4.
 3.—Prothorax and elytra very finely and densely punctulate.
 21. **punctatissimus**, n. sp.
 Prothorax sparsely, elytra strongly punctured.....22. **laticollis**, n. sp.
 4.—Sides of prothorax rounded.....5.
 Sides of prothorax subangulated, slightly sinuate; color entirely black,
 finely punctured.....23. **longipennis**.
 5.—Elytra uniform in color, brown, blackish or testaceous; mentum frequently
 impressed.....6.
 Elytra yellow and black, mentum quite flat.....9.
 Testaceous yellow, head and tip of abdomen dark...35. **phytosinus**, n. sp.
 6.—Flanks of prothorax distinctly concave... ..7.
 Flanks of prothorax nearly flat; elytra yellow, finely punctured; prothorax
 finely granulate, obsolete punctured.....24. **luteipennis**, n. sp.
 Flanks of prothorax flat in front, slightly concave about the middle;
 blackish-brown or brown, head and prothorax darker; the latter dis-
 tinctly punctured, finely granulated, hind angles distinct, subrect-
 angular.....25. **sinuatus**, n. sp.
 7.—Prothorax very densely granulated, opaque.....8.
 Prothorax less densely granulated, subopaque, hind angles distinct.
 26. **annularis**.
 8.—Hind angles of prothorax indistinct, rounded; elytra chestnut, strongly
 punctured.....27. **confusus**, n. sp.
 Hind angles of prothorax very obtuse, but distinct; elytra yellow-brown,
 densely punctured.....28. **ruficornis**.
 9.—Epipleuræ dark.....10.
 Epipleuræ yellow.....11.
 10.—Elytra diagonally divided in color.....29. **divisus**.
 Elytra with base and wide sutural stripe black.....30. **pleuralis**, n. sp.
 Elytra more finely punctured, diagonally divided in color.
 31. **diagonalis**.
 11.—Elytra more strongly punctured, yellow, base and suture black.
 32. **tau**, n. sp.
 Elytra more finely punctured, sides and apical quadrate spot yellow.
 33. **ornatus**.
 Elytra more strongly punctured, suture fuscous.....34. **suturalis**.
 12.—Rufous, head, and sometimes the abdomen darker...36. **cognatus**, n. sp.
 Piceous, antennæ, legs and elytra yellow-testaceous, suture dusky.
 37. **emarginatus**.

21. **B. punctatissimus**, n. sp.—Black, finely pubescent, antennæ fuscous base ferruginous; legs ferruginous. Head opaque, front broad flat, antennal ridges nearly obsolete. Prothorax wider than long, much rounded on the sides, hind angles rounded into the base, disc subopaque, finely and very densely punctulate, dorsal line obsolete. Elytra less opaque, finely and very densely punctulate. Dorsal segments shining, feebly punctulate; ventrals similarly punctulate. Mandibles with the apical part long and slender. Side margin of prothorax acute, flanks concave along the margin, episterna narrow, parallel; coxal fissures long, (open?). Length 3 mm.; .11 inch.

One specimen, Southern California, collected by Mr. Hardy, and given me by Dr. David Sharp. Another specimen precisely similar

was given me by Mr. Ulke as coming from Florida. This locality is perhaps doubtful; if correct it indicates an example of very unusual distribution.

This species is quite distinct from any other in our fauna, and with larger material would be more properly placed as a distinct group.

22. **B. laticollis**, n. sp.—Blackish-brown, more robust than usual, base of antennæ, elytra and feet red-brown or yellowish. Head opaque, finely granulated, indistinctly sparsely punctured, front wide and flat, antennal ridges short, but distinct as usual. Prothorax wider than long, much rounded on the sides, hind angles scarcely apparent; finely granulate, opaque, sparsely not deeply punctured, with a narrow smooth dorsal stripe and a very indistinct dorsal line. Elytra rather densely and strongly punctured, sutural angle more rounded than usual; when pale colored the base is dusky. Dorsal segments very sparsely punctulate; ventrals strongly, but finely and not densely punctured. Mandibles with the tip long and slender. Side margin of prothorax acute, flanks concave along the margin, episterna narrow, parallel, coxal fissures open. Length 4 mm; .16 inch.

♂.—Front angles of epistoma slightly elevated; two small distant tubercles just behind the frontal suture. Ventral segments alike in both sexes.

San Diego and Los Angeles, Cal.; found abundantly by Mr. G. R. Crotch. This species again breaks the homogeneous character of this group, and were it not for the open coxal fissures would be better associated at the end of the preceding group.

23. **B. longipennis**, Macklin, Bull. Mosc. 1852, ii, 318.—Black, finely pubescent, tarsi brownish. Head opaque, finely granulate, front wide, flat. Prothorax not wider than long, sides broadly rounded from the front angles for more than half the length, then subangulated, and feebly sinuate to the hind angles, which are nearly rectangular; disc opaque, feebly punctulate, finely granulate, dorsal line very fine. Elytra rather longer than usual, a little wider than the prothorax, finely and densely punctured. Dorsal segments shining, sparsely punctulate; ventrals strongly and finely punctured. Side margin of prothorax acute, episterna parallel, concave along the side, coxal fissures open. Apical part of mandibles long and slender. Length 4.5 mm; .175 inch.

♂.—Eighth ventral segment with a small acute incision.

British Columbia, one specimen; previously described from Alaska.

24. **B. luteipennis**, n. sp.—Black, legs and elytra brownish-yellow, antennæ broken. Head and prothorax very finely granulated, subopaque; the latter not wider than long, rounded at the sides, hind angles very obtuse, rounded and indistinct, punctures sparse, small and not deep, dorsal line deep. Elytra longer than usual, rather finely and densely punctured, suture dusky towards the base; apical angle more rounded than usual. Dorsal segments nearly smooth, anus brown; ventral segments dark-brown, strongly and finely punctured. Side margin of prothorax acute, episterna rather wide, nearly flat, sutures extending only to the coxal fissures, which are open. Mentum with a small deep impression near the hind margin. Length 3 mm; .12 inch.

One badly preserved specimen, San Bernardino, Cal.

25. **B. sinuatus**, n. sp.—Blackish-brown or brown, with head and prothorax darker; antennæ and legs ferruginous. Head subopake, distinctly granulate, sparsely punctured behind, with a small occipital fovea, and a short transverse line. Prothorax wider than long, rounded on the sides, which are subsinuate near the base, angles distinct, slightly prominent; disc subopake, granulated, sparsely distinctly punctured, dorsal line very fine, nearly obsolete. Elytra strongly punctured, convex, scarcely impressed. Dorsal segments sparsely punctulate, ventrals distinctly sparsely punctured. Flanks of prothorax slightly concave behind, nearly flat in front, episterna moderately wide, with an impressed line extending behind the coxal fissures which are large and open. Length 4 mm; .16 inch.

♂.—Eighth ventral segment with two distant impressed, slightly converging lines; mentum with a small rounded shallow impression, (body dark-brown). Canada.

♀.—Eighth ventral segment slightly impressed; mentum nearly flat; (body brown, head and prothorax darker). Illinois.

I have doubtfully associated these two specimens together, as they agree, except in color and in the impression of the mentum. Should they prove with larger material to be distinct, the female may be regarded as the type, and a new name imposed on the Canadian darker form.

26. **B. annularis**, Lec. New Sp. Col. (Smithsonian 8vo), 53.—Brownish-black, elytra and abdomen sometimes reddish-brown, the latter indistinctly fasciate; antennæ, mouth organs and legs ferruginous. Head finely granulated, sparsely punctured, with a small fovea at the vertex. Prothorax not wider than long, rounded on the sides, hind angles obtuse, distinct; disc finely granulated, subopake, sparsely not deeply punctured, dorsal line fine. Elytra deeply and densely punctured. Dorsal segments sparsely punctulate, ventrals finely sparsely punctured. Side margin of prothorax acute, episterna narrow, concave, prosternal sutures extending behind the coxal fissures, which are long and open. Mentum broadly but feebly concave behind. Length 3.3 mm; .13 inch.

♂.—Last (eighth), ventral segment deeply and acutely incised.

Lake Superior, Illinois, Missouri, Georgia, British Columbia and Vancouver's Island.

This and the next three species have an almost deceptive resemblance, but are to be distinguished by the characters of the upper and lower surface of the prothorax.

27. **B. confusus**, n. sp.—Brownish-black; elytra sometimes red-brown, antennæ piceous, base ferruginous, legs dark ferruginous. Head opake, less finely granulate, obsoletely sparsely punctured. Prothorax wider than long, more rounded on the sides, hind angles very obtuse and rounded; disc less finely granulated, opake, sparsely punctured, dorsal line fine. Elytra strongly rather densely punctured. Dorsal and ventral segments, and under surface of prothorax just as in *B. annularis*. Mouth ferruginous, mentum broadly concave. Length 3 mm; .12 inch.

♂.—Last ventral segment with a small acute incision which is closed by membrane.

Lake Superior, four specimens. Differs from *B. annularis* by the more strongly and densely granulated head and prothorax; the latter is wider and more rounded on the sides, with the hind angles rounded and indistinct.

28. *B. ruficornis*, Lec. New Spec. Col. (Smithsonian 8vo), 53.—Blackish-brown, base of antennæ and legs yellow-brown; elytra usually yellow-brown, more densely and finely punctured than in the allied species. Head opaque, densely granulated, frontal suture distinct, occipital fovea and transverse line small; feebly and sparsely punctured behind. Prothorax wider than long, rounded on the sides, hind angles obtuse but distinct; disc densely granulated, opaque, distinctly but not strongly punctured, dorsal line fine. Elytra less convex than in the allied species, and more finely and densely punctured. Dorsal segments sparsely punctulate, ventrals strongly but finely and rather densely punctured. Flanks of prothorax concave behind, but less so, and nearly flat in front, episterna rather wide. Mentum feebly impressed. Length 3 mm; .12 inch.

♂.—Eighth ventral with a deep acute triangular impression.

San Mateo and San Bernardino, Cal.; many specimens. This species closely resembles *B. lativittis*, and differs only by the sexual characters, the elytra more finely punctured, and by the hind angles of the prothorax being distinct, and not entirely obliterated. Specimens collected by Dr. Horn in South-eastern California, are intermediate in these characters and indicate that one of these species might have developed from the other at a recent geological time.

29. *B. divisus*, Lec. New Spec. Col. (Smithsonian 8vo), 53.—Black, head and prothorax nearly opaque, and very finely granulated, antennæ and legs piceous, tibiae and tarsi paler. Head flat, feebly punctulate. Prothorax a little wider than long, sides rounded, hind angles obtuse, distinct; disc finely not densely punctured, dorsal line fine. Elytra yellow, with the sides and a large common triangular space from the humeri to the tip of the suture black; rather strongly and densely punctured. Dorsal segments shining, sparsely punctured, ventrals finely and densely punctured. Side margin of prothorax acute, groove of the side deep, narrow, episterna narrow. Length 3 mm; .12 inch.

♂.—Eighth ventral segment acutely and deeply incised; ♀ with the same segment rounded at tip and slightly impressed.

Kansas, Lake Superior and Canada.

30. *B. pleuralis*, n. sp.—Similar in all characters to *B. divisus*, except that the yellow part of the elytra is defined by a curved instead of a straight line, so that the common triangular spot noted in that species becomes a broad sutural stripe, rounded behind and expanded in front, so as to occupy the base. Length 3 mm; .12 inch.

♂.—Eighth ventral segment longitudinally impressed; ♀ not impressed.

San Bernardino and Stockton, Cal.; Mr. Crotch; several specimens all more or less mutilated.

31. **B. diagonalis**, Lec. New Spec. Col. (Smithsonian Svo), 52.—Black, thinly clothed with very short golden pubescence, antennæ piceous, legs reddish-yellow. Head and prothorax very finely granulated, opaque, sparsely and finely punctured; the latter with the dorsal line very fine, sides much rounded, hind angles obtuse and somewhat rounded. Elytra dark dirty yellow, with a large common triangular spot extending from the humeri nearly to the tip of the suture blackish; epipleuræ fuscous. Dorsal segments shining, punctulate, especially towards the sides, last two segments piceous; ventrals finely punctured. Side margin of prothorax acute, episterna narrow, concave. Mentum flat, opaque. Length 4.7 mm; .185 inch.

♂.—Eighth ventral segment not impressed, rounded at tip.

One specimen collected by me at San Diego, Cal., in salt marsh.

32. **B. tan**, n. sp.—Black, antennæ, palpi, legs and elytra rufo-testaceous; base and suture of the last black. Head and prothorax subopaque, very finely granulated, the former less distinctly finely punctured; the latter finely and sparsely punctured, with the dorsal line very fine; sides much rounded, hind angles obtuse, distinct. Elytra finely and densely punctured. Dorsal segments shining, nearly smooth; ventrals finely punctured, tip piceous. Flanks of prothorax very slightly concave, side margin acute, episterna wider in front than at the coxal fissures which are long, narrow and open. Mentum flat, opaque. Length

♂.—Eighth ventral with two fine distant impressed lines, converging slightly; intermediate space feebly impressed at the middle.

One specimen, New York. The elytra although finely, are more strongly punctured than in the next species.

33. **B. ornatus**, Lec. New Spec. Col. (Smithsonian Svo), 53.—Black, pruinose with very short yellowish pubescence, antennæ piceous, legs, sides of elytra and large apical blotch extending more than half way to the suture pale yellow. Head and prothorax opaque, very finely granulated, obsolete punctulate, dorsal line not apparent, sides more obliquely and less strongly rounded than in the neighboring species, hind angles obtuse, not at all rounded, but even slightly prominent. Elytra finely and densely punctured, yellow lateral stripe sometimes confined to the epipleuræ, sometimes much wider, dilated behind into a large apical blotch also variable in size; they are more than one-half longer than the prothorax and the sutural angle is more rounded than usual. Dorsal segments somewhat shining, punctulate towards the sides; ventrals densely punctulate. Side margin of prothorax acute, episterna slightly concave, not wider in front. Mentum flat, opaque. Length 3.7–4.2 mm; .14–.165 inch.

♂.—Eighth ventral with a small acute triangular incision closed by membrane.

San Francisco, Cal.; many specimens. This species must be closely allied to *B. albonotatus*, Mäklin, (Bull. Mosc. 1853, ii, 193), from Alaska. The description of the latter, however, mentions that the legs are dark, with the tarsi and the posterior tibiae alone yellow. The pale sides of the elytra are also not mentioned. It may perhaps be an extreme variety, as there are great differences in the markings

of the specimens before me; the coxæ and legs are, however, yellow in all.

34. **B. suturalis**, Lec. New Spec. Col. (Smiths. 8vo), 53.—Blackish-brown, antennæ testaceous, outer joints piecous, legs and elytra testaceous, the latter with the suture, and sometimes the base fuscous. Head and prothorax finely granulated, nearly opaque; the former with a very small occipital fovea, and a few scattered punctures; the latter finely and sparsely punctured; dorsal line very fine, hind angles obtuse, not rounded. Elytra finely and deeply but not very densely punctured, sutural angle very much rounded. Dorsal segments shining, sparsely punctulate towards the sides; ventrals finely not densely punctulate. Side margin of prothorax acute, episterna narrow, concave. Mentum flat, opaque. Length 3 mm; .12 inch.

Banks of Gila River, Arizona. No sexual differences observed in the four specimens in my collection.

35. **B. phytosinus**, n. sp.—Slender, yellow-testaceous, head and penultimate dorsal segment dusky. Head very finely alutaceous, with a small occipital puncture. Prothorax wider than long, finely granulate, opaque, deeply but finely punctured, dorsal line fine, abbreviated at each end, sides feebly rounded, except towards the base, hind angles indistinct. Elytra strongly rather densely, but not coarsely punctured, sutural angle very much rounded. Dorsal segments sparsely punctulate, ventrals more distinctly punctulate. Side margin of prothorax acute, episterna narrow, concave. Mentum flat, opaque, with a small basal fovea. Length 2.5 mm; .10 inch.

♂.—Seventh ventral segment obtusely prolonged behind; eighth truncate at tip, broadly but not deeply concave.

One specimen, Southern California; collected by Mr. Crotch. The form and color give to this species much resemblance to those of the genus after which I have named it.

36. **B. cognatus**, n. sp.—This species is larger than the next, and exactly resembles it in form and sculpture; the head and occasionally the dorsal segments one to six are darker, and the elytra are not at all fuscous along the suture; otherwise the color is a uniform reddish-yellow. Length 2.5 mm; .10 inch.

Carolina to Texas; the eighth ventral segment of the ♂ is deeply triangularly impressed.

37. **B. emarginatus**, Say, (*Oryctes*), Tr. Am. Phil. Soc. iv, 461; ed. Lec. ii, 577; Er. Staph. 780; *B. troglodytes*, Er. ibid, 775.—Blackish, antennæ, legs and elytra pale, the latter with the suture dusky. Head and prothorax shining, polished, sparsely but deeply punctured, the former convex, frontal impressions short, supra antennal ridges very small; epistoma convex, with the angles slightly elevated, and the front margin subemarginate. Prothorax a little wider than long, sides rounded into the base, hind angles wanting. Elytra finely not very densely punctured, sutural angle very widely rounded. Dorsal segments very sparsely, ventrals sparsely punctulate. Side margin of prothorax acute, episterna narrow, concave. Length 2 mm; .08 inch.

♂.—Eighth ventral segment truncate and subemarginate at tip, deeply longitudinally impressed.

Southern, Middle and Western States.

Group 5.—*cordatus*.

In this group the side margin of the prothorax is acute, and the flanks deeply but narrowly concave; the prosternal sutures are obliterated, and the coxal fissures are short and closed; the hind angles are obtuse. The mandibles vary in form according to species, but the apical part is slender.

- Head and prothorax subopaque, the former convex.....2.
 Head and prothorax opaque, densely granulated, the former flat.....3.
 2.—Black, antennæ, tibiæ and tarsi testaceous-brown; elytra pale yellow, with the basal margin and sutural bead blackish.....38. **basalis**.
 Black, antennæ, tibiæ and tarsi dark testaceous; elytra with the basal half black, the apical half pale yellow.....39. **dimidiatus**, n. sp.
 3.—Legs yellow, elytra with a dusky sutural cloud4.
 Legs pale fuscous, body brown, elytra fusco-testaceous.....40. **opaculus**.
 4.—3.5 mms. long; prothorax wider than long.....41. **cordatus**.
 1.7 mms. long; prothorax scarcely wider than long.....42. **forcipatus**.

38. **B. basalis**, Lec. New Spec. Col. (Smithsonian 8vo), 54.—Black, head subopaque, very finely granulate; not densely but finely punctured; convex; antennal ridges very small, frontal impressions indistinct; epistoma with the front angles slightly prominent. Antennæ testaceous, first and last joints darker. Prothorax a little wider than long, sides nearly parallel in front, then obliquely rounded, hind angles obtuse, not very distinct; disc convex, strongly, though finely punctured, dorsal line indistinct. Elytra finely not densely punctured, pale yellow, base and narrow sutural margin blackish; sutural angle not much rounded. Dorsal segments shining, sparsely, the ventrals less sparsely punctulate. Legs piceous, tarsi and posterior tibiæ testaceous. Side margin of prothorax acute, flanks narrowly but strongly concave, prosternal sutures obliterated, coxal fissures short, closed. Mandibles obtusely toothed, apical part not very long, slender. Length 2.5—3 mm; .10—.12 inch.

♂.—Eighth ventral segment with a small deep triangular impression.

Atlantic coast, New York to Florida. The specimens from the latter locality are larger, with the elytra rather more strongly punctured, but do not otherwise differ. The bristles of the posterior abdominal segments are longer in this and the other species of this group than in any of the preceding groups.

39. **B. dimidiatus**, n. sp.—This species resembles the preceding in all respects, except that the prothorax is very distinctly wider than long, and less deeply punctured. The elytra are more strongly punctured, and the basal half is black, the apical half pale yellow; the epipleuræ are entirely black, and

the line dividing the colors is slightly oblique backwards towards the suture. Length 2.5 mm; .10 inch.

One ♀, Enterprize, Florida, May 24th; Messrs. Hubbard and Schwarz.

40. **B. opaculus**, Lec. New Spec. Col. (Smithsonian 8vo), 54.—Fuscous, elytra paler, opaque, finely and densely rugosely punctured. Head opaque, finely granulated, flat, sparsely punctured. Prothorax wider than long, sides nearly straight in front, then rounded, hind angles very obtuse, but distinct; finely granulated, opaque, finely punctured, dorsal line obsolete. Dorsal segments shining, nearly smooth; ventrals strongly punctulate. Side margin of prothorax acute, flanks with a narrow deep marginal groove, prosternal sutures effaced, coxal fissures short, closed. Mandibles long and slender, acutely toothed at the middle; mentum with a rounded impression. Legs pale fuscous. Length 4 mm; .16 inch.

♂.—Eighth ventral segment with two distant slightly converging impressed lines, and a faint longitudinal impression.

One pair, coast of Maine, Mr. W. Stimpson; a similar one found by me at Coney Island, New York: they are unfortunately all immature.

41. **B. cordatus**, Say, (*Orytelus*), Trans. Am. Phil. Soc. iv, 461; ed. Lec. ii, 576; Er. Staph. 780.—Black, antennæ testaceous, darker at tip; legs yellow; elytra yellow with a large common fuscous blotch, which is smaller, or even obsolete in immature specimens. Head broad, flat, finely granulated, opaque. Prothorax finely granulated, opaque, one-third wider than long, sides subparallel, rounded behind, hind angles obtuse, indistinct; disc punctulate, dorsal line obsolete. Elytra finely and densely punctured, sutural angle not much rounded. Dorsal segments shining, nearly smooth; ventrals strongly punctulate, tip dark testaceous. Side margin of prothorax acute, flanks with a narrow marginal groove, prosternal sutures wanting, coxal fissures very short, closed. Length 4 mm; .16 inch.

♂.—Eighth ventral segment with a feeble and narrow triangular impression.

Atlantic coast from New York to Georgia. Immature specimens are pale brown, with the head, prothorax and penultimate dorsal segment darker. The mentum has a small basal circular impression. The mandibles are long and slender, with an acute tooth about the middle. The base of the elytra is sometimes also fuscous.

42. **B. foreipatus**, Lec. New Spec. Col. (Smithsonian 8vo), 54.—Piceous, legs and antennæ testaceous, the latter dusky at tip; elytra pale yellow, with the base and sutural band dilated behind, but not extending to the tip, dusky. Head opaque, flat, finely granulated. Prothorax a little wider than long, sides nearly straight in front, rounded behind, angles indistinct; disc opaque, finely granulated, punctulate, dorsal line indistinct. Elytra densely and finely punctured, sutural angle well rounded. Dorsal segments nearly smooth, ventrals sparsely punctulate. Side margin of prothorax acute, flanks with a narrow marginal groove, prosternal sutures wanting, coxal fissures short, closed.

1. ***O. incolumis***, Er. Staph. 791.—♂. Seventh ventral with a prominent middle lobe, which is truncate at tip. ♀. Seventh ventral bisinuate, middle lobe broadly rounded.

Southern States. Easily known by the shining black color, prothorax without grooves, and the bright yellow elytra and legs.

2. ***O. sculptus***, Grav. Mon. 191; Say, Tr. Am. Phil. Soc. iv, 460; ed. Lec. ii, 575; Er. Staph. 788, etc.; *O. murens*, Mels. Pr. Ac. Nat. Sc. Phil. ii, 42.—♂. Seventh ventral with two deep narrow incisions; middle lobe broad, truncate, feebly impressed, not longer than the side lobes. Eighth ventral broadly concave.

Middle, Southern and Western States, and Vancouver's Island. Also in Europe.

3. ***O. rugosus***, Er. Col. March, 588; Staph. 786, etc.; *Staphylinus rug.* Fabr. Syst. Ent. 267, etc.; *O. rugulosus*, † Harris, Tr. Hartford Nat. Hist. Soc. 49; *O. basalis*, Mels. Pr. Ac. Nat. Sc. Phila. ii, 41.—♂. Fifth ventral segment with an elevated tubercle at the middle of the hind margin. Seventh ventral deeply and broadly trilobed.

Canada, Massachusetts and Pennsylvania. Also in Europe.

4. ***O. niger***, n. sp.—Narrower and less depressed than usual, black, shining, legs blackish-brown. Head ovate, nearly as wide as the prothorax, wider behind the eyes, which are very small, and not prominent; surface punctured, front slightly convex, frontal suture entirely wanting; antennal ridges short, obtuse; vertex obsoletely channeled, occipital impressions wanting. Prothorax twice as wide as long, sides rounded, feebly crenulate, hind angles rounded; surface strongly not densely punctured, dorsal grooves deep, straight. Elytra not longer than the prothorax, strongly punctured. Dorsal and ventral segments sparsely punctulate. Length 2.5–4.3 mm; .10–.17 inch.

♂.—Sixth ventral segment with a small tubercle at the middle, and two nearly confluent very small cusps on the hind margin. Seventh ventral bisinuate, middle lobe broad, not longer than the lateral lobes. Eighth ventral not impressed.

♀.—Seventh ventral strongly bisinuate, middle lobe rounded, longer than the lateral lobes.

San Francisco, Cal.; three specimens. British Columbia, one specimen. This last is of small size, piceous, with the elytra paler; the base of the antennæ and legs are testaceous.

5. ***O. pensylvanicus***, Er. Staph. 792.—♂. Seventh ventral segment slightly tuberculate, near the hind margin bisinuate, middle lobe scarcely longer, truncate and emarginate at tip. Head larger than in the ♀, and more quadrate behind the eyes.

Middle and Southern States abundant.

6. ***O. fascipennis***, Mann. Bull. Mose. 1843, ii, 233.—♂. Seventh ventral with two deep incisions, middle lobe short and broad, truncate at tip. Eighth with deep medial groove. ♀. Seventh ventral feebly prominent and retuse at the middle of the hind margin. Eighth slightly concave.

Alaska, British Columbia, Kansas, Illinois, Pennsylvania. The epistoma of the ♂ is more deeply concave than that of the ♀, and the head is more dilated behind the eyes.

7. **O. convergens**, n. sp.—Depressed, piceous, shining, base of antennæ and legs testaceous; elytra darker testaceous, coarsely aciculate punctured. Head prolonged behind the eyes, which are small and convex; surface coarsely punctured, posterior impressions moderately long, converging obliquely forwards to the front, which has a short longitudinal line; epistoma deeply concave, smooth at the bottom, strongly margined. Prothorax strongly punctured; the three dorsal grooves are deep and entire, the lateral impressions broad as usual. Dorsal and ventral segments finely and sparsely punctulate. Length 3.4 mm; .13 inch.

♂.—Head as wide as the prothorax, sides parallel behind the eyes, then suddenly rounded and constricted. Seventh ventral with a broad flat trapezoidal medial lobe, which is truncate at tip, and nearly as long as the eighth segment.

♀.—Not seen.

One specimen, Sandy Point, Florida. Messrs. Hubbard and Schwarz.

8. **O. insignitus**, Grav. Mon. 188; Er. Staph. 793; *O. americanus*, Mann. Brachelytra, 48.—♂. Head large, quadrate, nearly smooth, strigose each side behind the eyes; epistoma prolonged at the middle and acuminate; mandibles very long, slender, falcate; seventh ventral segment feebly bisinuate at tip.

♀.—Head not as wide as the prothorax, rounded behind the eyes, sparsely punctured, punctures smaller in front, epistoma subtruncate; mandibles moderate in length; seventh ventral broadly rounded at tip.

Atlantic slope from New York to Florida and Kansas, abundant. In this species the sexual differences are mainly in the head, and the abdominal characters are consequently very feeble, as already mentioned in the prefatory remarks to this memoir.

9. **O. punctatus**, n. sp.—Black, shining, elytra dark-brown, legs yellow-brown. Head sparsely punctured, epistoma quadrate, depressed, nearly smooth, separated by a transverse impression; frontal and posterior impressions almost united; vertex convex, with a short longitudinal impression; sides parallel for a short distance behind the eyes, then suddenly rounded and constricted; eyes convex, not very prominent. Prothorax a little wider than long, coarsely punctured, middle groove deep, the other two less defined; side impressions large, shallow. Elytra depressed, strongly rugosely punctured. Dorsal segments smooth; ventral sparsely very finely punctulate. Length 2 mm; .08 inch.

Vancouver's Island and British Columbia; Mr. G. R. Crotch. I observe no sexual characters in fourteen specimens examined. Two of them are rather larger, but do not otherwise differ.

10. *O. nitidulus*, Grav. Micr. 107; Mon. 186; Er. Staph. 792, etc.; *O. rugulosus*, Say, Tr. Am. Phil. Soc. iv, 460; ed. Lec. ii, 576.

Middle. Western and Southern States; the only sexual difference is that mentioned by Erichson; the sixth ventral segment is very slightly emarginate in the ♂. The synonym is on the authority of Erichson. It seems to me an incorrect determination, but as Say described his species from Mexico, the question does not concern us at the present time.

11. *O. sobrius*, n. sp.—Piceous, less shining than *O. punctatus*, much as in *O. nitidulus*; legs pale. Head sparsely punctured behind, more coarsely at the sides; epistoma subopake, quadrate, depressed, smooth, vertex convex, channelled; frontal and posterior impressions nearly united; sides rounded behind the eyes, which are slightly prominent. Prothorax densely and coarsely rugosely punctured, dorsal grooves distinct, middle one limited by two ridges more prominent than usual; lateral impressions broad, shallow. Elytra depressed, densely and coarsely aciculate. The other characters as in the two preceding species. Length 2 mm; .08 inch.

California, two specimens; no sexual differences observed.

12. *O. placidus*, n. sp.—Very depressed, fuscous, nearly opaque, abdomen shining. Head densely rugosely punctured behind, front less depressed, nearly smooth, subopake; vertex slightly convex, impressed; sides prolonged and rounded behind the eyes, frontal and occipital impressions nearly united. Prothorax very densely rugosely punctured, dorsal grooves obsolete, the middle one and the lateral impression being faintly indicated; sides less rounded than usual; hind angles obtuse, not rounded. Elytra punctured like the prothorax. Dorsal segments smooth, ventral finely and rather densely punctured. Length 2.3 mm; .09 inch.

♂.—Sixth ventral segment with a small acute projecting angle at the middle of the posterior edge; eighth segment broadly concave.

Two specimens found by Mr. H. Ulke, in ants' nests near Washington, D. C., one of which he has kindly placed in my collection. The dull lustre is owing to the closeness of the punctures, and not to the want of polish of the very narrow interspaces. This species bears a strong resemblance to *Placusa* of the Aleocharini in form of body, and this superficial likeness is increased by the hind angles of the prothorax being more distinct than usual, and the sides less rounded.

13. *O. depressus*, Grav. Micr. 103; Er. Staph. 796, etc.—♂. Head large, flat, almost wider than the prothorax; sixth ventral segment slightly and broadly emarginate.

♀.—Head somewhat narrower than the prothorax, less flat; sixth ventral (broken in my specimen, described by Erichson as slightly triangularly prolonged at the middle).

One pair found by me in Indiana. These specimens agree accurately with the description given by Erichson, of this common Eu-

ropean species. It is easily known by the sexual characters, and the finely but rather densely punctured dorsal segments.

14. **O. nanus**, Er. Staph. 797.—♂. Seventh ventral feebly bisinuate at tip; ♀, slightly triangularly produced, (Er.)

One specimen, Carolina, Dr. Zimmermann. In this species the head and thorax are less opaque than in the next; the dorsal grooves are deep, and the antennæ are entirely black. It is a very small insect, being only 1.2 mm; .05 inch long.

15. **O. exiguus**, Er. Staph. 798; *O. pygmaeus*, Mels. Pr. Ac. Nat. Sc. Phil. ii, 41.

Middle and Southern States. The sexual characters are much as in the preceding, and the size is about the same. The specimens in my collection would seem to indicate one or two allied species, but the material is not sufficient to enable me to define them. The head and prothorax are entirely opaque, the dorsal grooves are wide and shallow, and the base of the antennæ is piceous.

This and the preceding species differ remarkably from the others by the front tibiæ not being obliquely truncate or emarginate on the outer side near the tip, but slender and truncate at tip. *O. parvulus*, Mels. (i. c. supra), does not seem to differ from this species.

PHLEONAEUS, Er.

Although one species of this genus before it was properly defined by Erichson,* had been separated by Stephens from *Oxytelus* as a distinct genus under the name *Aploderus*, this separation had been made upon the very unimportant character of the sculpture of the prothorax. The latter, namely, in *Phleonaeus* has but two dorsal grooves, while in most *Oxyteli*, as has been seen in the foregoing descriptions, there are three. Yet as in some species the outer grooves (*pennsylvanicus*), become feeble, and in others all three (*incolumis*, *placusiinus*), are obliterated, it is obvious that this character is of no value for founding a genus, and the name proposed by Stephens not having been adopted by Erichson, who had the right to make the choice, must be considered as not published.

But one species has yet occurred in our fauna:

P. linearis, Lec. (*Haploderus*), New Spec. Col. (Smithsonian Soc.), 54.—The front tibiæ are slender, entire, and truncate at tip, as in the European *P. casus*, with which it also agrees in sexual characters. ♂. Seventh ventral

* Käfer, Mark Brandenb. 597, 1837.

segment feebly and broadly emarginate. ♀. Seventh ventral with an obtuse broad triangular process behind.

Vancouver's Island, Oregon, California; many specimens.

Phlaconerus hümpressus, Mäklin, Bull. Mosc. 1852, ii, 319; and *Haploderus laticollis*, Lec. New Spec. Col. 55, do not belong to this genus. The front tibiæ are not spinose, and they seem from the presence of a distinct scutellum in the former, and its absence in the latter to belong respectively to *Ancyrophorus* and *Trogophloeus*.

THINOBIVS, Kiesenwetter.

The species of this genus are of very small size, and linear depressed form, greatly resembling in appearance minute Aleocharini (*Homalota*, etc.). They are easily known from species of allied genera by the sutural angle of the elytra being broadly and obliquely rounded, so as to leave an angle, in which the wings are visible, except in *T. brachypterus*, which is quite anomalous.

The species seem to be allied to those of Europe, and perhaps on comparison may profitably be united with some of them as only slightly modified forms.

Those in my collection are easily separated as follows: the table is made to correspond as far as possible with that given by Fauvel in his excellent work, Faune Gallo-Rhenane, iii, 118, for the French species.

Surface entirely without lustre, velvety.....2.
Surface somewhat shining, pubescent, distinctly punctulate; elytra brownish,
not much longer than the prothorax; antennæ and legs piceous.

1. **gigantulus**, n. sp.

2.—Antennæ and legs reddish-yellow.....3.

Antennæ and legs piceous or black.....4.

3.—Elytra twice as long as the prothorax which is feebly channeled and im-
pressed.....2. **oxytelinus**, n. sp.

Elytra one-third longer than the prothorax which is not impressed.

3. **flavicornis**, n. sp.

4.—Elytra much longer than the prothorax.....5.

Elytra transverse, shorter than the prothorax, sutural angle not truncate,
scarcely rounded.....4. **brachypterus**, n. sp.

5.—Elytra thinly fringed at tip with long hairs.....5. **fimbriatus**, n. sp.

Elytra not fringed, pubescence very short.....6. **macropterus**, n. sp.

1. **T. gigantulus**, n. sp.—Elongate, linear, shining, almost uniformly finely punctulate and pubescent, black; elytra brown, legs fuscous. Antennæ piceous, first and second joints stout, third much narrower, the other joints gradually wider, outer ones (eighth to tenth) distinctly transverse, all of them setose with long stiff hairs; eleventh larger and as long as the two preceding.

Head large, broadly rounded behind, broadly concave (a sexual character?) Prothorax wider than long, slightly narrowed behind, truncate in front, broadly rounded at base, sides nearly straight, disc longitudinally impressed. Elytra one-third longer than the prothorax and not wider. Length 1.4 mm; .05 inch.

Texas, Belfrage; two specimens. In one the dorsal impression of the prothorax is strongly marked, in the other it is merely an impressed line, distinct at base, but obsolete in front. I do not know if this be a sexual character or an individual deformity.

2. **T. oxytelinus**, n. sp.—Broader, more depressed, without lustre, dull blackish-brown; elytra reddish, antennæ and feet yellow-testaceous; antennæ gradually thickened externally, outer joints rounded, scarcely transverse; head not so wide as the prothorax, slightly narrowed and rounded behind the eyes. Prothorax wider than long, strongly rounded on the sides, more broadly at the base, hind angles very obtuse and rounded; disc indistinctly channeled, and broadly impressed near the sides. Elytra twice as long as the prothorax, reddish-brown, base and margins dusky; sutural angle very much rounded. Length .08 mm; .03 inch.

One specimen; Oak Grove, California.

3. **T. flavicornis**, n. sp.—Narrower, depressed, without lustre, brown; abdomen blackish; antennæ and legs testaceous, the former with the outer joints larger, rounded, scarcely transverse, slightly darker. Head scarcely narrower than the prothorax, rounded behind. Prothorax not longer than the head, rounded on the sides, nearly truncate before and behind, angles much rounded. Elytra one-third longer than the prothorax. Length .07 mm; nearly .03 inch.

Two specimens, salt marsh, Coney Island, near New York. A badly preserved specimen from Lake Superior seems to belong to this species, but its condition does not permit of accurate determination.

4. **T. brachypterus**, n. sp.—Narrow, depressed, entirely dull black, opaque, finely pubescent. Antennæ stout, scarcely longer than the head and thorax, outer joints transverse. Head not narrower than the prothorax, sides nearly parallel behind the eyes, base broadly truncate. Prothorax wider than long, rounded at the sides, slightly narrowed behind, angles rounded into the base. Elytra not wider and hardly as long as the prothorax, finely punctulate, sutural angle very slightly rounded. Abdomen densely punctulate. Length .06 mm; .025 inch.

Detroit, Michigan, found in abundance by Messrs. Hubbard and Schwarz. This species is anomalous by the very short elytra, and much less rounded sutural angle but does not appear to differ otherwise.

5. **T. fimbriatus**, n. sp.—Less elongate, sooty brown, without lustre; head rounded, a little narrower than the prothorax. Antennæ entirely piceous, outer joints a little thicker, and slightly transverse. Prothorax twice as wide as long,

slightly emarginate in front, rounded on the sides and at the base. Elytra twice as long as the prothorax, sutural angle strongly rounded, apical margin fringed with long hairs. Legs piceous. Length .05 mm ; .02 inch.

Detroit, Michigan, one specimen ; Messrs. Hubbard and Schwarz.

6. **T. macropterus**, n. sp.—Less elongate, depressed, blackish-piceous, opaque, finely pubescent. Head rounded, very little narrower than the prothorax. Antennæ entirely piceous, stout, longer than the head and prothorax, outer joints transverse. Prothorax twice as wide as long, slightly emarginate in front, rounded at the sides and base. Elytra frequently reddish-brown, pubescence very short and depressed : nearly three times as long as the prothorax, sutural angle strongly rounded. Abdomen densely punctulate. Legs piceous. Length .06 mm ; .025 inch.

California, at various localities. The pubescence is scale like and tinged with golden upon the prothorax and elytra.

ANCYROPHORUS Kraatz.

This genus is easily distinguished from *Trogophloeus*, by the fourth joint of the maxillary palpi being longer, and gradually tapering from base to tip, which is rounded ; thus though acicular, it is much larger and more distinct than in *Trogophloeus* ; the front coxal cavities are widely angulated externally, and a large trochantin is visible ; the prosternal sutures are short, fine, but distinct ; the side margin of the prothorax is distinct, and not deflexed to the under surface near the front angles. The scutellum is variable in the three species in our fauna ; large in *A. planus*, smaller in *bimpressus*, and not visible in *annectens*. This last species makes therefore an excellent passage (in this respect, but in no other), to *Trogophloeus*.

Elytra strongly punctured, color brown.....2.

Elytra, head and prothorax very finely and densely punctured, color black, scutellum large.....1. **planus**, n. sp.

2.—Prothorax sparsely and very finely punctured, with an oblique impression each side near the base ; scutellum small.....2. **bimpressus**.

Prothorax sparsely and coarsely punctured, with two vague oblique impressions each side of the dorsal line ; scutellum invisible.

3. **annectens**, n. sp.

1. **A. planus**, n. sp.—Black, very depressed, finely pubescent, head, prothorax and elytra finely and densely punctulate. Prothorax wider than long, much rounded on the sides in front, then slightly narrowed, hind angles small, nearly rectangular, base broadly margined ; dorsal line narrow, feebly elevated, prolonged behind so as to interrupt a curved vague impression which follows the outline of the base. Scutellum large, flat, triangular, rounded behind. Elytra more than twice as long as the prothorax, and nearly one-fourth wider. Abdomen very finely punctulate above, densely and more distinctly beneath. Tibiæ at tips, tarsi and palpi piceo-testaceous. Length 2.7 mm ; .11 inch.

Lake Superior, and White Mountains, N. H. I observe no sexual differences in the specimens examined. This species is cited in my List of Coleoptera, but I neglected to describe it.

2. **A. biimpressus**, Mäklin, Bull. Mosc. 1852, ii, 319.—Depressed, brown, shining, slightly pubescent, head and abdomen darker. Head sparsely punctured; antennæ paler at base, outer joints transverse. Prothorax a little wider than long, rounded on the sides, narrowed behind, angles rounded, base rounded, disc sparsely very finely punctured, broadly obliquely impressed each side near the base; dorsal line narrow, smooth, very finely channeled, not elevated. Scutellum small, triangular. Elytra twice as long as the prothorax, and about one-third wider, rather strongly punctured. Dorsal segments nearly smooth, ventral very finely and sparsely punctulate. Length 3 mm; .12 inch.

Alaska; two specimens kindly sent me by Prof. Mäklin and Count Mniszech.

3. **A. annectens**, n. sp.—Dark-brown, shining, slightly pubescent, legs testaceous. Head rather strongly punctured, nearly smooth in front. Prothorax nearly twice as wide as long, much rounded on the sides in front, then obliquely and strongly narrowed to the base which is nearly straight, angles obtuse and rounded; disc coarsely and deeply punctured, dorsal line rather broad, elevated; an oblique impression each side near the base, and another in front of the middle; between them is a small smooth callus. Scutellum invisible. Elytra twice as long, and a little wider than the prothorax, densely but not finely punctured. Dorsal segments nearly smooth, ventral finely and sparsely punctulate. Length 3 mm; .12 inch.

San Mateo, Cal.; one specimen. The antennæ are somewhat less thickened externally than in *A. biimpressus*, and the last joint of the maxillary palpi is rather more slender. The under surface of the prothorax is, however, entirely similar in these three species.

TROGOPHILÆUS Mann.

The species here assembled under this generic name agree in having the front tibiæ not spinose, the second joint of the tarsi with a long spine, or stout seta extending beneath as far as the end of the third or last joint; the claws are large, the scutellum invisible, and the middle coxæ are contiguous.

They differ among themselves in other respects, such as the distance of the eyes from the base of the mandibles, and the consequent presence or absence of a distinct concave space for the reception of the first joint of the antennæ. The form of the third joint of the maxillary palpi, and the size of the fourth joint also varies; the latter is always acicular, but sometimes so small as to be indistinct. The form of body differs greatly in different species, and exhibits a tendency to imitate

genera of widely diverse tribes. I have observed something similar in various members of the Staphylinidæ, and more rarely in other series of Coleoptera, but will have occasion to recur to this subject at a later time, when I have studied the phenomena more closely.

In all the species the lateral margin of the prothorax is deflexed near the front angles, so as to be visible from beneath for a short distance. The prosternal sutures are obliterated, the front coxal cavities are small and not angulated at the outer side.

The epipleural line is fine but distinct, and is distant from the extreme margin of the elytra except in *T. phleoporus*; the meta-thoracic epimera are in great part covered.

Our species may therefore be arranged in the following groups, which will perhaps be considered as distinct genera by those who are inclined to subdivisions of that grade.

- I.—Eyes remote from the base of the mandibles; third joint of maxillary palpi elongate-triangular, fourth joint acicular distinct.
 - A.—Body slender, subcylindrical, very finely punctulate and pubescent; prothorax not impressed, front angles not well-defined.
 - B.—Body strongly depressed, finely punctulate and pubescent.
- II.—Eyes extending to the base of the mandibles; third joint of maxillary palpi turbinate truncate, fourth small, acicular, distinct. Body broad depressed, prothorax transverse, rounded, with two wide impressions and dorsal ridge. Elytra with epipleural line strongly defined.
- III.—Eyes extending nearly to the base of the mandibles; third joint of maxillary palpi ovate-elongate, last joint distinct or obsolete, according to species. Body depressed, strongly punctured; prothorax with a deep lunate impression near the base, front angles not prominent.
- IV.—Eyes extending nearly to the base of the mandibles; third joint of maxillary palpi turbinate, truncate at tip; fourth joint very small, distinct. Body slender, head, prothorax and elytra coarsely punctured; prothorax with two parallel impressions, and intervening elevated dorsal line. Elytra with the epipleural line not far from the extreme margin.
- V.—Eyes extending nearly to the base of the mandibles; third joint of maxillary palpi turbinate, last joint very small, frequently scarcely distinct. Body depressed, punctured, pubescent; prothorax with impressions each side of a dorsal elevated line. Epipleural line fine, distant from the extreme margin.

This last group contains the greater number of the species. They may be easily separated by the form, sculpture and impressions of the prothorax, but do not seem to present sufficient interest to occupy attention at present. I therefore leave them for a future occasion or another student.

Group I,—A.

1. **T. simplarius**, n. sp.—Slender, not depressed, black, not shining, very finely and densely punctulate, pruinose with extremely fine pubescence; tip of abdomen, palpi and tarsi piceo-testaceous. Eyes coarsely granulated, not very prominent; antennæ testaceous, scarcely as long as the head and prothorax, outer joints fuscous, transverse. Head with a distinct puncture at the vertex. Prothorax one-third wider than long, moderately rounded on the sides and narrowed behind; all the angles rounded and not prominent; disc uniformly slightly convex, without impressions, and without dorsal line. Elytra quadrate, not wider than the prothorax, slightly convex, feebly impressed near the scutellum, which is invisible. Abdomen and under surface similarly punctured, but more pubescent. Gula deeply channeled and foveate. Length 2.5 mm; .10 inch.

Coney Island, near New York; on salt marsh, in July.

I have two specimens from the same locality, in which the prothorax and elytra are brownish; the former comparatively less broad, and less narrowed behind. I do not know if these are sexual or specific characters, and merely mention them as worthy of future investigation.

2. **T. convexulus**, n. sp.—Of the same form as *T. simplarius*, and similar to it, except that it is smaller, a little stouter, and less finely punctulate. The antennæ are entirely black, and the legs piceous, with the tips of the tibiæ and tarsi paler. The fovea of the vertex is absent. The prothorax is quite similar, but there is a narrow smooth dorsal line; the elytra are much more distinctly punctulate. Otherwise there are no differences. Length 1.8 mm; .07 inch.

One specimen from Kansas, and one from New York.

3. **T. bledius**, n. sp.—Of the same form as *T. simplarius*, but much smaller, more slender, black, very finely punctulate and pubescent, tips of tibiæ and tarsi testaceous. Antennæ entirely black, scarcely as long as the head and prothorax, outer joints transverse. Head with the vertex not foveate, eyes rather large and convex. Prothorax nearly as long as wide, rounded on the sides, moderately narrowed behind, all the angles rounded, disc not impressed, smooth dorsal line very narrow, sometimes not visible. Elytra a little wider and nearly one-half longer than the prothorax, moderately convex, slightly impressed near the scutellum. Length 1.8 mm; .07 inch.

San Diego, Mr. Crotch, also in Arizona; several specimens. Two specimens are more slender, with the elytra shorter.

4. **T. uniformis**, n. sp.—Rather broader and less convex, black, very finely punctulate and pubescent. Vertex not foveate, antennæ not longer than head and prothorax, outer joints transverse; eyes less prominent. Prothorax wider than long, sides and angles rounded, slightly narrowed behind, without impressions, or smooth dorsal line. Elytra a little wider, and one-third longer than the prothorax, more distinctly punctulate. Legs piceo-testaceous. Length 1.2 mm; .05 inch.

Pennsylvania, Georgia; three specimens.

The last joint of the maxillary is smaller, and the third joint stouter and more turbinate than in the other species of this group.

Group I,—B.

5. **T. lithocharinus**, n. sp.—Very depressed, brownish-black, nearly opaque, very finely punctulate and pubescent. Head as wide as the prothorax, eyes small, not prominent, posterior constriction sudden, hind angles rounded. Maxillary palpi with the third joint turbinate, truncate at tip, fourth joint slender, acicular, distinct. Antennæ extending to half the length of the elytra, not stout, fifth and following joints rounded, distant, gradually a little larger. Prothorax wider than long, sides strongly rounded in front, oblique near the base, where it is narrower, truncate before and behind, angles rounded. Elytra a little wider than the prothorax, and more than twice as long. Legs dark-brown, tarsi testaceous. Length 3 mm; .12 inch.

Puget Sound, Mr. G. Davidson. The punctuation is so fine as to be almost imperceptible; there are very vague traces of impressions on the prothorax, but hardly worth mentioning. The epipleural line of the elytra is very fine.

Group II.

6. **T. laticollis**, *Haploderus* ‡ lat. Lec. New Spec. Col. 55.

One specimen, S. Carolina, Dr. Zimmermann. Differs remarkably by the broader form, which resembles that of *Oxytelus*. The prothorax is very finely punctulate, the elytra rather strongly punctured. Length 2.5 mm; .10 inch.

Group III.

7. **T. arcifer**, n. sp.—Depressed, strongly punctured, more finely upon the dorsal segments, sparsely finely pubescent, legs yellow, base of antennæ piceous. Head moderately narrowed immediately behind the eyes, which are not very prominent; frontal impressions deep, antennal tubercles large. Antennæ a little longer than head and prothorax, much thicker externally. Prothorax nearly twice as wide as long, emarginate in front, much rounded on the sides and base, front angles not rounded; disc with a large deep curved impression near the base; dorsal line not apparent. Elytra wider than the prothorax and one-half longer. Tip of abdomen and under surface piceous, strongly and finely punctured. Maxillary palpi with the third joint elongate-ovate, fourth small, acicular, distinct. Length 2.8 mm; .11 inch.

♂.—Seventh ventral segment emarginate behind; eighth with a small narrow apical fissure.

Middle, Western and Southern States. The epipleural line of the elytra is fine, but distinct, and in the usual position, far from the margin.

8. **T. caloderinus**, n. sp.—Not depressed, black, shining, finely sparsely pubescent, sparsely setose at the sides of the prothorax, elytra and abdomen. Head suddenly constricted a short distance behind the eyes, which are moderately convex, surface sparsely finely punctured, frontal impressions short, antennal tubercles moderate. Antennæ rather slender, a little longer than head and prothorax, outer joints broader, not transverse, last joint more pointed than usual. Maxillary palpi with the third joint elongate-ovate, rounded at tip, fourth joint obsolete. Prothorax much wider in front, and strongly rounded, narrowed and subsinuate on the sides towards the base, which is rounded; front angles rounded; disc sparsely very finely punctulate, with a very deep arcuated posterior impression, and two faint small impressions in front of the middle. Elytra wider than the prothorax, and somewhat longer, rather convex, strongly punctured, scutellar region impressed; epipleural line fine, not far from the extreme margin. Dorsal segments nearly smooth, ventrals more pubescent, obsoletely punctulate. Length 3 mm; .11 inch.

♂.—Seventh ventral squarely and deeply emarginate, with the base of the emarginate obtusely toothed; eighth segment channeled.

Texas, Mr. G. W. Belfrage, six specimens.

Group IV.

9. **T. phloeoporinus**, n. sp.—Ferruginous, shining, feebly pubescent, head, prothorax and elytra strongly punctured, abdomen punctulate. Head narrowed some distance behind the eyes, which are small, and not prominent. Antennæ stout, not longer than the head and prothorax, outer joints transverse. Prothorax not wider than long, sides rounded in front, obliquely narrowed behind, front angles not rounded, but also not prominent; disc coarsely not densely punctured, with the dorsal line smooth slightly elevated, limited by two broad longitudinal impressions extending from the base beyond the middle. Elytra not wider than the prothorax and a little longer, strongly punctured, impressed along the suture. Dorsal and ventral segments finely and rather densely punctulate, epipleural line distinct, not remote from the extreme margin. Length 2.2 mm; .09 inch.

Illinois, one specimen.

Group V.

Of this group I have nearly forty species, some of which seem to be very nearly allied to European forms, and in some instances have been recognized as identical. The only names I am able to cite for the described species are:

10. **T. quadripunctatus**, *Stenus 4-punct.* Say, Tr. Am. Phil. Soc. iv, 459; ed. Lec. ii, 575; *T. morio*, Er. Staph. 805.

Western and Southern States. Easily known by its larger size, subhexagonal prothorax, strongly punctured elytra and black legs.

11. **T. subtilis**, Er. Käfer Mark Brand. 606; Staph. 812, etc.

A European species, which has occurred in the Southern and Western States.

12. **T. fulvipes**, Er. Staph. 804.

Described from Porto-Rico; occurs in Florida and Louisiana.

13. **T. mennonius**, Er. Staph. 806.

Described from Egypt; identified by Mr. Fauvel, among specimens from the Southern States.

APOCELLUS Er.

The species of this genus resemble in form *Fulagria* of the Aleocharini, but are easily known by the three-jointed tarsi, and the insertion of the antennæ under elevated frontal ridges. The species are few in number, and easily distinguished; others occur in the Antilles and South America, but not on the eastern continent.

So far as I have collected them they are found in cow dung, and in decomposing vegetable material.

- Surface shining, highly polished.....2.
 Head and prothorax opaque; head large, truncate behind, prothorax trapezoidal.....1. **stilicoides**, n. sp.
 2.—Sides of head oblique and rounded behind, base but slightly truncate; prothorax rounded or nearly so.....3.
 Sides of head parallel behind; base broadly truncate; prothorax trapezoidal.....2. **analis**, n. sp.
 3.—Prothorax rounded or nearly so.....3. **sphericollis**.

1. **A. stilicoides**, n. sp.—Piceous, head and prothorax opaque, finely alutaceous; base of antennæ and legs yellow-testaceous. Head large, feebly convex, sides parallel behind the eyes, base broadly truncate, hind angles rounded; frontal suture well-marked; vertex with a very short impressed line. Prothorax not very convex, narrower than the head and elytra, broader than long, trapezoidal with rounded angles, narrowed from the front to the base, which is scarcely margined; disc with a very obsolete short dorsal elevation. Elytra shining, convex, very finely punctulate, and thinly clothed with extremely short pubescence. Dorsal segments punctulate, almost as the elytra; ventral segments also punctulate, more distinctly pubescent. Length 2 mm; .08 inch.

♂.—Sixth ventral very slightly emarginate at the middle; seventh not prolonged, (almost invisible in my specimen).

♀.—Sixth ventral not emarginate; seventh triangularly produced, as in all the other species.

One pair, Enterprize and Baldwin, Florida; Messrs. Hubbard and Schwarz. This species by the opacity of part of the surface is related to the Amazonian *A. planus*, Sharp, Trans. Ent. Soc. London, 1876, 401.

2. **A. analis**, n. sp.—Rufo-testaceous, shining, smooth, last two dorsal segments of abdomen blackish. Head large, sides parallel behind the eyes, broadly truncate at base, hind angles rounded. Prothorax convex, wider than long, narrowed from the front angles to the base, sides straight, angles rounded, base

and inflexed flanks finely margined. Elytra convex, wider than the prothorax, Length 2.6 mm; .10 inch.

♂.—Sixth ventral produced into a large broadly and deeply excavated plate; seventh and eighth with a broad and deep longitudinal concavity.

Louisiana, Arizona, California. The excavation of the broad plate of the sixth ventral produces two large compressed curved wings, which are much more developed in the Western specimens than in the one from Louisiana. The head of the ♀ is a little smaller than that of the ♂, more rounded behind the eyes, and less truncate at base; in consequence of this great development of the sexual armament of the sixth segment, the seventh which is the more complex one in the next species, is simply broadly concave, and without lateral processes.

3. **A. sphericollis**, Er. Staph. 813. tab. 2, f. 5; *Lathrobium sph.* Say, Trans. Am. Phil. Soc. iv, 455; ed. Lec. ii, 570; *Falagria globosa*, Mels. Pr. Ac. Nat. Sc. Phila. ii, 30; *Falagria longicornis*, Sachse, Ent. Zeitung. Stettin, 1852, 116; *F. amabilis*, Sachse, ibid.

Atlantic and Pacific slopes, Massachusetts to Florida, Texas, Kansas, Arizona and California. Varies greatly in color, and somewhat in the form of the prothorax, which is occasionally nearly as wide as the head, and less oval than usual; sometimes on the other hand, a little longer than wide and regularly oval.

The color also varies from blackish piceous, with the base of the antennæ and legs testaceous, but the thighs tinged with fuscous; to bright rufo-testaceous, the abdomen dark, and the head and outer joints of the antennæ fuscous; the under surface, except of the prothorax is also dark.

In a ♂ of this last mentioned form the plate of the sixth ventral segment is less developed than in the others, and does not project downwards, so as to form a membranous concavity on the terminal part of the segment. I consider this, however, as rather a want of development, than as indicating specific distinction.

The description of Dr. Melsheimer would not be recognized as belonging to this species, as the imperfect lenses he used, and the bad condition of the specimen caused it to appear to him minutely punctured.

♂.—Sixth ventral segment with a short broad process, forming a ciliated edge margining a vertical membranous concavity; seventh ventral very deeply concave, with a broad compressed triangular wing each side, which is directed towards the middle; eighth segment slightly concave.

PIESTIDÆ.

The genera and species of this subfamily now known in our fauna may be recognized by the following tables :

Abdomen broadly margined.....	2.
Abdomen with lateral edge rounded, subcylindrical.....	3.
Abdomen with lateral edge acute, feebly margined.....	ELEUSIS.
2.—Elytra striate and punctured.....	SIAGONIUM.
Elytra punctured not striate.....	HYPOTELUS.
3.—Tarsi five-jointed, body not costate.....	4.
Tarsi three-jointed, prothorax and elytra costate.....	GLYPTOMA.
4.—Anterior coxæ contiguous.....	ANCÆUS.
Anterior coxæ separated by the prolonged prosternum.....	LISPINUS.

SIAGONIUM Kirby.

Rufo-testaceous, head and prothorax finely sparsely punctulate.

1. **americanum.**

Black, head and prothorax not densely but strongly punctured.

2. **punctatum.**

These species inhabit the Atlantic States and have been described under the more recent generic name *PROGNATHA* Latr.

ELEUSIS Lap.

For the characters of the four species in our collection, see the excellent remarks of Dr. Horn, Trans. Am. Ent. Soc. iii, 279, under the genus *Isomurus*, which as he properly observes is a more recent name.

GLYPTOMA Er.

For the differences between the two species of this genus, see the remarks of Dr. Horn, Trans. Am. Ent. Soc. iii, 332.

ANCÆUS Fauvel.

This genus differs from *Lispinus* chiefly by the front coxæ being contiguous, and not separated by the prosternum. It thus establishes, as already observed by Dr. Sharp, an excellent transition to *Holotrochus* of the *Osorii* group of *Oxytelini*.

Black, punctured.....2.

Rufo-testaceous, nearly smooth.....1. **rufescens.**

2.—More strongly and less closely punctured.....2. **prolixus**, n. sp.

 More densely and finely punctured.....3. **californicus.**

1. **A. rufescens.** *Lispinus rufesc.* Lec. New Sp Col. 59.

Florida, Alabama, Louisiana.

2. **A. proluxus**, n. sp.—Slender, linear, piceous black, shining, head, prothorax and elytra uniformly deeply but not coarsely punctured. Prothorax a little wider than long, angles nearly rectangular, sides broadly rounded, base broadly but feebly impressed at the hind angles. Elytra a little wider, and one-third longer than the prothorax, sutural stria impressed. Dorsal segments more finely punctured, posterior margins and tip piceous. Beneath piceous, shining, punctulate. Length 4 mm; .16 inch.

New York, one specimen kindly given me by Mr. Ulke. Larger and more slender than the next species.

3. **A. californicus**. *Lispinus cal.* Lec. New Spec. Col. 59.

Middle California, abundant under oak bark. The posterior transverse curved impression of the prothorax is sometimes very feeble. This species greatly resembles in appearance *Holotrochus*.

LISPINUS Er.

- Body stouter, more convex, prosternum extremely narrow.....2.
 Body slender, depressed, prosternum wider and more prolonged.....3.
 2.—Elytra, prothorax and abdomen equally punctured...1. **equipunctatus**.
 Elytra and prothorax distinctly punctured.....2. **obscurus**.
 Elytra and prothorax nearly smooth.....3. **tenuis**.

MICROPEPLIDÆ.

But two genera of this subfamily are known, which may be distinguished as follows:

- Head, prothorax and elytra costate.....**MICROPEPLUS**.
 Body without elevated lines.....**KALISSUS**.

MICROPEPLUS Latr.

The suture and side margin of the elytra are elevated, and in the intermediate space there are four acute costæ, of which the first and second are entire, the third and fourth sometimes abbreviated behind, with the interspace narrower and more elevated; these two costæ sometimes coalesce, so as to form a single ridge, the interspaces are eribrate, punctured or smooth, according to species. Three natural groups are indicated by the form of the prothorax:

- I.—Body elongate-oval, prothorax with sides rounded and subserrate, wider than prothorax at base, hind angles slightly obtuse; elytra each with four straight entire dorsal costæ; interspaces coarsely punctured.
 1. **laticollis**.
 II.—Body oval, less elongate; prothorax with sides angulated, widest in front of the base; hind angles obtuse; elytra with the two outer costæ shorter, interspaces coarsely punctured.....2. **punctatus**.

III.—Body more compact and broader; prothorax with sides bent about the middle, then parallel to the base, hind angles rectangular.

Costæ of elytra sinuous, interspaces cribrate.....3. **cribratus**.

Costæ of elytra straight, interspaces flat, smooth, third and fourth costæ distinct, and a shorter supplementary lateral one, sides of prothorax angulated.....4. **sculptus**.

Similar to *sculptus*, but sides of prothorax oblique, not angulated.

5. **obliquus**, n. sp.

Costæ of elytra straight, interspaces flat, smooth, third costa wanting.

6. **costatus**.

1. **M. laticollis**. Mäklin, Bull. Mosc. 1853, ii, 199.

Alaska; types kindly sent me by Prof. Mäklin and Baron Chaudoir. Found abundantly on the north shore of Lake Superior by Messrs. Hubbard and Schwarz; and in New Hampshire by Mr. E. P. Austin. The prothorax is wider at base in ♂ than ♀, the sides being somewhat curved inwards in the latter.

2. **M. punctatus**, Lec. List of Col. N. Am. 1863, p. 26; *M. costatus* † Mäklin, Bull. Mosc. 1852, ii, 325.

Described from Alaska; two specimens were collected by Mr. Crotch, at San Diego, California, which agree sufficiently with Prof. Mäklin's description.

This species is intermediate in form between the preceding and following. The prothorax is much narrowed in front, with the sides oblique, from the tip to the middle, where they are strongly angulated; they then converge slightly to the base, and have a small tooth half way between the side angle and the base; the basal angles are obtuse in outline, but acutely cuspidate at tip.

The third costa of the elytra is abbreviated behind, and widely separated from the fourth.

3. **M. cribratus**, Lec. New Spec. Col. 60.

Georgia, one specimen. Easily known by the irregularly flexed and sinuous costæ of the elytra, and the very coarsely cribrate interspaces. The sides of the prothorax are oblique in front, strongly angulated at the middle, then parallel, with a small cusp half way between the side angle and the basal angle, which is rectangular, and not rounded.

4. **M. sculptus**, Lec. New Spec. Col. 60.

One specimen, Georgia. Without close examination this and the next species might be confounded with *M. costatus*, on account of the elytral interspaces being wide and nearly smooth, on comparison however, it will be seen that the ridges are not so acute, the usual third costa is present, and abbreviated behind; the fourth is entire; on the

inflexed part of the elytra there is a curved costa parallel with and approximate to the margin, but in the interspace between it and the fourth costa there is an acute costa abbreviated, both before and behind. The sides of the prothorax are oblique in front, obtusely angulated at the middle, then parallel and undulated nearly to the basal angle which is slightly obtuse and rounded.

5. ***M. obliquus***, n. sp.—Blackish-brown, head and prothorax subopaque, elytra and abdomen shining; of the same form and size as *M. sculptus*. Head with two oblique ridges and the side margin elevated. Prothorax nearly three times wider than long, widest at base, narrowed and slightly rounded on the sides to the tip, slightly repand, but not angulated; disc divided into cells as usual, but the flattened sides are less uneven than in *M. sculptus*. Elytra costate precisely as in that species, each with four dorsal costæ, and a curved one on the inflexed side margin; in the interspace between this lateral one and the fourth dorsal is an acute costa abbreviated before and behind, interspaces wide, smooth. Penultimate dorsal segment of the abdomen impressed as usual. Length 1.4 mm; .05 inch.

British Columbia, one specimen. The differences between this and the preceding may be merely sexual, but in the absence of other specimens, I am hardly warranted in considering specimens from such distant localities as pertaining to the same species.

6. ***M. costatus***, Lec. Agassiz, Lake Superior, 221; *M. costipennis* Mäklin, Bull. Mosc. 1853, ii, 200.

Lake Superior; California, (at Gilroy); Alaska; a typical specimen was kindly sent by Prof. Mäklin. The interspaces of the elytra are smooth, or nearly so, and very wide; the usual third costa is wanting, and the fourth is entire; on the inflexed side of the elytra there is also an entire costa, which is curved and parallel with the margin. The sides of the thorax are oblique in front, feebly angulated at the middle, then parallel nearly to the base, where they are slightly inflexed, causing the basal angles to become somewhat obtuse, and slightly rounded. This species differs from all the others in having the penultimate dorsal segment not carinate or impressed, thus exhibiting a passage to the next genus.

7. ***M. brunneus***, Mäklin, Bull. Mosc. 1852, ii, 326.

Alaska. Unknown to me.

KALISSUS Lec.

1. ***K. nitidus***, Lec. Trans. Am. Ent. Soc. V, 50.

Vancouver's Island, one specimen collected by Mr. G. R. Crotch.