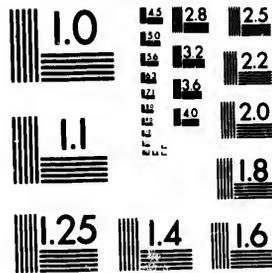


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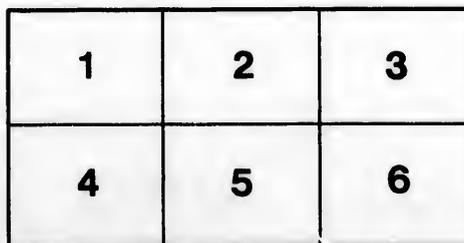
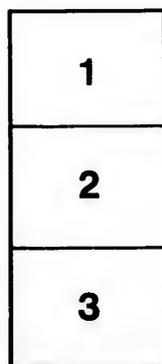
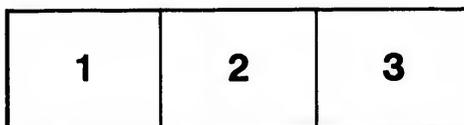
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Revision of the STENINI of America North of Mexico.

Insects of the

Family *Staphylinidae*, order *Coleoptera*.

By THOS. L. CASEY, Lieut. of Eng'rs.

MEMBER OF THE ENTOMOLOGICAL SOCIETY OF FRANCE.

THE present revision has been written in order to carry our knowledge of the immense family Staphylinidae one step further toward a state of approximate completeness, and to close a gap which has long been left untouched, on account of the great number of species involved, and because of their uniformity, small size, and apparent monotony. Large collections of material have been accumulating for the last fifty years, until the number of species represented has become truly immense, and is yearly increasing; it is, therefore, in addition, to make at least an attempt to classify and describe such species as we now have represented in our cabinets, not only to save them from prolonged oblivion by reason of possible destruction, but to render easier the task of keeping up in future with the collectors, that the present work is presented to the entomological world; not, however, without many misgivings on the part of the author.

The filling of the above-mentioned gap in the series will, in conjunction with a work of similar scope upon the Philonthi, already published by Dr. Geo. H. Horn, of Philadelphia, render our knowledge of the North American Staphylinidae outside of the Aleocharini, much more satisfactory. It is true there are in such genera as *Trogophleus*, *Bledius*, and many others, a large number of species still undescribed, but the genera have for the most part been investigated, and proper methods of classification generally indicated, so that the task will in these cases consist of the mere description of new species and their interpolation in the tables.

For the great mass of material which has been under examination, amounting in all to nearly two thousand specimens, I am indebted first to Messrs. E. A. Schwarz and H. G. Hubbard, who kindly placed their entire collection at my disposal. This is a most surprising aggregate of these small insects, collected mainly in the Lake Superior Region; also at Detroit, Mich., Cambridge, Mass., at various points in the Peninsula of Florida, at Columbus, Texas, and in Colorado; besides others in the same cabinet collected by Mr. Morrison in the Lake Tahoe Region of Nevada, and in Washington Territory. Probably four-fifths of the entire number of species here described are due to the scientific collecting of these Coleopterists. I am also greatly indebted to the late Dr. J. L. LeConte, who, a short time before his death, placed his entire set of this tribe in my hands. This collection is made up principally of a considerable series of specimens, collected by the late Mr. G. R. Crotch in widely separated points of California, in British Columbia, and in Vancouver Island, and also contains large donations from the cabinet of Messrs. Hubbard and Schwarz, as well as a smaller number gathered together from other sources.

To Mr. J. Pettit, of Grimsby, Ontario, I owe my best thanks for a large collection in alcohol, made by himself in that part of Canada immediately about his home; and I am also under obligations to Dr. G. H. Horn, of Philadelphia, and Mr. C. V. Riley, of Washington, for small sets of specimens, being all that their cabinets chanced to contain at the time.

In conclusion, I cannot fail to express my thanks to M. Aug. Sallé, of Paris, for a type collection of the more common European species with which that distinguished entomologist most kindly answered my request; they have been of great use in determining the identity of several species.

It will be seen, upon consulting the map of North America, and noting the several localities given above, that the extensive region about the Great Salt Lake, and thence stretching in a broad belt, embracing Lakes Winnipeg, Athabaska, and Great Slave, as well as the entire region of Labrador about Hudson's Bay, and the Mississippi Valley from the source of the river to its mouth in Louisiana, are almost wholly unrepresented in the collections which are before me. As it is apparent that a large number of species are quite local in habitat, many new ones will undoubtedly be brought to light when these vast regions are sufficiently explored. Until they shall have been collected over, it must be quite useless to treat exhaustively of geographical distribution. It may be stated, however, that, as a rule,

the northern regions are the true home of the Stenini, and here they exist in prodigious variety and numbers. As we go south the species and individuals become much less numerous, until finally, in the West India Islands, there is, according to Mr. Schwarz, but one species at present known. This rule does not, however, apply strictly throughout, and there are many species described from Mexico and tropical South America, but in these cases, if I am correctly informed, they are generally found in the mountainous districts, and consequently in a climate more temperate in its nature than that of the surrounding regions.

The species of the Atlantic seaboard are generally distinct from those inhabiting the great internal lake region, and both these in turn differ, in general, from those of the Pacific coast and Alaska. The species from California and Nevada have, as a group, a somewhat different appearance from the Eastern species, being generally robust and more depressed, with smaller heads and longer elytra. On the other hand, a few forms, as *juno* (Fab.), *semicolon* Lec., and *stygicus* Say, have a very wide range of distribution, and several are known to be quite cosmopolitan.

It will be seen, on comparing our fauna in this group with that of Europe, that they differ decidedly in the relative proportions of species with simple tarsi and those in which the fourth joint is bilobed, or, according to the divisions here adopted, in the genera *Stenus* and *Areus* respectively.

PHILADELPHIA, Aug. 10, 1884.

STENINI.

GENERAL CHARACTERS.

Head variable in size, usually large and relatively much wider than long. Eyes large, strongly convex, occupying nearly the entire side of the head, sometimes sparsely and minutely setose, always finely reticulated; lenses not perceptibly convex. Labrum large, corneous, strongly, evenly and broadly arcuate anteriorly; entire surface rapidly declivous, conical. Interocular surface variable in form, generally more or less depressed, sometimes, however, feebly convex; generally having two longitudinal sulcations, which are slightly convergent anteriorly, the intermediate surface being more or less convex and prominent; rarely the sulcations and longitudinal

elevation are entirely absent, and the surface between the eyes evenly flat or curved throughout. Antennae varying but slightly, 11-jointed, sometimes rather long and strongly clubbed (*Dianous*), in two species (sub-gen. *Mutinus*) long and very feebly enlarged toward the tip, generally distinctly clubbed and slightly longer than the width of head; first two joints always more robust than the funicle, inserted upon the front under slight tuberculations of the upper surface. Maxillary palpi generally very well developed, first joint shortest and almost invariably palest in color, third joint longest, more or less strongly and gradually enlarged toward the tip, fourth extremely minute, generally spinous, acute, and seldom visible, except under favorable conditions and under the high powers of the microscope. Labial palpi very small, second joint very robust, third spiniform and minute. Maxillae short, lobes membranous toward tip, where they are densely and coarsely ciliate. Mentum trapezoidal, nearly transversely truncate anteriorly, having upon its exposed surface a strongly elevated, triangular process, separated from the base of the mentum by a transverse, curved canalication; apex of the triangle acute and generally projecting slightly beyond the anterior margin of the mentum; sides of triangle generally incurvate; the mentum usually bears several setae irregularly disposed. Ligula membranous. Mandibles long, arcuate, acicular toward the tip, which is very acute; having internally near the apex, a long, very acute, recumbent tooth, which, however, is sometimes shorter and robust.

Prothorax usually more or less elongated, always strongly convex, and sometimes sub-cylindrical, often longitudinally canalicated, and more or less tuberculate at the base.

Elytra wider than the prothorax, generally longer than wide, moderately convex, usually more or less impressed along the suture, more particularly toward the base, also often impressed near the humeri, thus giving the appearance of a slight longitudinal tuberculation near the middle of the base of each elytron; together broadly and more or less feebly emarginate behind; sides more or less divergent posteriorly, generally slightly arcuate.

Abdominal segments seven in number, usually decreasing in width posteriorly, sometimes (*Areus advena*), with the fourth and fifth segments wider than the first and second. Each dorsal segment has at the base, a transverse elevated ridge, which generally has several cusped prolongations posteriorly.

Legs variable in length, generally rather long and somewhat slender, always pubescent. Tibiae usually nearly equal in thickness through-

out, and feebly sigmoid, unarmed, having at the tip a dense fringe of very short cinereous setae. Tarsi varying greatly in length, as is also the case with the relative lengths of the joints, 5-jointed, having all the joints normally cylindrical, or having one, sometimes two or three joints slightly enlarged or bilobed; strongly pubescent beneath; claws appendiculate, rather small, simple or nearly so.

Anterior coxae small, sub-conical, slightly prominent; intermediate slightly separated, posterior conical.

Prosternum always punctate, generally having longer pubescence than any other portion of the body.

Entire body punctate, punctures never absent, always very distinct, generally more or less conulescent, giving a very diversified character to the sculpture.

Body generally winged, sometimes apterous, generally of a deep black, sometimes having a slight metallic lustre. Legs sometimes paler. Elytra rarely ornamented with two orange-colored spots.

Pubescence always present, sometimes very prominent and long, in other cases extremely sparse and short, generally cinereous, fulvo- or flavo-cinereous, or flavate, sometimes pale piceous, always setiform and more or less erect.

The insects composing this group are all small, generally minute; their appearance is very distinct, and there is no possibility of mistaking them, the very large eyes reminding us in some cases of *Cicindela* in miniature. Their uniformly black color and deeply sculptured integuments isolate them completely from any other of the family groups.

Their habits are very variable; the movements of some are rapid, of others rather sluggish, some running continuously for long distances, others halting every few paces like the common house-fly; some are found on the muddy or sandy banks of ponds or streams, running swiftly in the hot sunshine; others are to be met with only in the cool recesses of moss or débris cast up by the waves; others again occur only under the bark of old logs. All are probably carnivorous, capturing their prey alive like most of the *Carabidae*, and are not to be met with near carrion or excrements, except, perhaps, in order to devour some of the numerous minute insects always swarming about such pabulum.

Regarding the protrusion of the ligula with its attendant paraglossae, it can only be said that in our species it is a very rare con-

dition; among the multitude examined I have only noted it in three species, *Austini*, *milleporus*, and *umbratilis*, and then in but one specimen of each. It is certainly a very surprising phenomenon, and everything said concerning it must be more or less opinionative; as far as I have been able to perceive, it is purely accidental.

The structure of the mentum has been very singularly mistaken by Erichson, that author, usually so accurate, stating that the part is triangular in outline; this is to be accounted for, from the fact that the mentum is generally deeply seated among the oral organs, only the triangular carination of its exposed surface being clearly visible; this was undoubtedly mistaken for the entire mentum, although it is difficult to understand how its form could have been overlooked during the process of dissection.

It will be seen that I have departed from the usual mode of treating the genus *Stenus*, by dividing it into two genera, according as the tarsal joints are simple or bilobed. This will probably meet with opposition and perhaps be totally discarded; I have therefore not repeated specific names in the new genus, so that they can be united without causing confusion. Most of the species of *Areus* can be recognized at a glance, without examining the tarsi, indicating a more or less natural division; and for those species which may be considered connecting links, the propriety can be no less than that which warrants the continuance of many genera of Carabidae, as, for instance, *Selenophorus*. There is no species in our fauna which cannot be placed at once in its proper genus, and the division is certainly to be recommended on the score of convenience, having in mind the fact that generic limits must always be more or less arbitrary.

In our fauna the genus *Areus* is much less homogeneous than *Stenus*, having forms such as *advena*, *megalops*, and *Sayi*, which may with further study be considered as possessing characters of generic value. In *Stenus*, when the third or fourth ventral segment is modified in the male, the fifth is invariably affected, while in *Areus*, the second, third, and fourth segments are often modified, when the fifth is perfectly normal.

EXPLANATORY NOTES.

In a group in which the species are very closely related, long and full descriptions are a necessity, and I have preferred to make each description complete in itself, and all of like construction. To save time in comparisons, similar parts are defined at corresponding places in each. This form is the

result of considerable inconvenience, experienced in consulting several works where the description of one species refers to that of another, and this in turn often to a third, thus necessitating a large amount of reading and reference before the full description is reached. Although, by the method proposed, there must be a large amount of repetition, it is hoped that the convenience in having all the parts of a description under its own heading, will repay the additional labor. The descriptions have invariably been taken from males, when present, unless the contrary is stated.

In describing the sexual modifications, various terms are employed, which it may be well to explain as follows:—

Emarginate.—This term is applied to an abrupt discontinuity of an edge, the line joining the two points of discontinuity being reëntrant, and more or less broadly rounded. A certain latitude is allowed in the greater or less prominence of the exterior angles, they being in some cases slightly rounded, in others very prominent, acute, and projecting, and also in the degree of curvature of the line forming the reëntrant; this, though in the great majority of cases very broadly rounded, may in certain instances be rather acutely so, which is particularly the condition, when the emargination approaches in configuration the more or less triangular notch known as an incisure.

Sinuate.—When the line bounding the vertex of a segment is uninterruptedly curved throughout, but reëntrant in the middle, it will be designated by this term. In this case the reëntrant portion is called the sinus, and the two lateral rounded projections the apices. Comparisons are frequently drawn between the degrees of curvature of the sinus and apices, as will be seen subsequently, and will be understood to refer to the points where the curvature is a maximum, or at the bottom of the sinus and tips of the apices. If a right line be imagined drawn tangent to the apices, the distance from it to the bottom of the sinus will represent the depth of the latter, and the distance between the points of tangency its width; the same rule is applicable to the measurement of all notches and emarginations.

Incised.—When the emargination takes the form of a triangular notch, this term will be applicable. The anterior angle is called the angle at the vertex, anterior angle, or simply the angle of the incisure; the points at which the posterior edge of the segment becomes interrupted to form the notch are designated the exterior angles. The sides of the notch are generally straight, and should always be so understood, unless the contrary is expressly stated, and a slight latitude is allowed, in that all the angles may be slightly rounded, and the sides sometimes arcuate or sinuate; the former is very rare, but occurs in the genus *Areus*.

Bilobed.—This term I have applied when the tip of a segment is emarginate, the notch being a perfect cusp in outline, and the sides or arms being widely divergent and evenly curvate. We have in this case the two uninterruptedly rounded apices, as in the instances cited under the term *sinuate*; but here the edge is acutely notched in the middle. The only latitude allowed in this instance is that the cusp may in certain forms be narrowly rounded; these cases are distinctly stated, otherwise the term is to be considered as indicating a perfect cusp point.

For purposes of measurement, the head is supposed to be limited by two sets of tangent lines drawn to the eyes, one set parallel to the axis of the insect, the other perpendicular to the same.

The lines of juncture of the eyes with the interocular surface, called *ocular lines*, are generally nearly straight, and have various degrees of convergence in the different species. This is indicated by the number of head-lengths, the point of junction of these lines if produced, would be distant from the anterior margin of the labrum.

The numbers placed after the various localities indicate the number of specimens from each, respectively.

The genera and subgenera within our faunal limits may be tabulated as follows:—

- Paraglossae not constricted at base; genae of head large.....**Dianous**.
 Paraglossae strongly constricted at base; genae generally absent, sometimes visible from above, though very small.
 Fourth tarsal joint simple or but slightly enlarged, not having well-defined elongated lobes.
 Last joint of antennae longer than the penultimate.....**Stenus**.
 Last joint of antennae short, in the males much shorter than the penultimateSub-gen. **Mutinus**.
 Fourth tarsal joint distinctly bilobed.....**Areus**.

DIANOUS Samonelle.

In this genus there are two distinct types, viz.: *cærulescens* Gyll, and *nitidulus* Lec., to each of which there may be considered as belonging two species, closely allied, it is true, but still distinct as far as can be judged from the material at hand. In appearance the species are robust, of a dark steel-blue color, having on each elytron a large reddish-flavate spot. The eyes are much smaller than in *Stenus*, and leave a large portion of the head exposed behind them; the distance between the eyes is much greater than in any of the other genera of the group in our fauna. The antennae are very long and slender, and the abdomen very strongly margined at the sides. Our species, three in number, may be tabulated as follows:—

- Fourth and fifth joints of antennae equal in length or extremely nearly so.
 Punctuation very sparse; elytra scarcely longer than wide.
 1. **nitidulus**.
 Punctuation very dense and fine; elytra distinctly longer than wide.
 2. **chalybeus**.
 Fourth joint of antennae distinctly longer than the fifth; punctuation of elytra sparse, strong; elytra distinctly longer than wide.
 3. **zephyrus**.

1. **D. nitidulus** Lec.—Pubescence fine, sub-recumbent, sparse, very inconspicuous. **Head** rather large; interocular surface raised slightly above the eyes, with two very deeply impressed, broadly rounded, longitudinal impressions dividing it equally; intermediate surface strongly and evenly convex; punctures fine, evenly distributed, distant at all points by slightly more than their own widths, interspaces flat; eyes rather small, prominent; genae long, continuous in curvature with the eye; antennae three-fourths longer than the width of head, black, rather slender, club dark fuscous; third joint one-half longer than the fourth, fourth and fifth equal in length, each joint enlarged toward its tip; maxillary palpi long and slender, piceous-black throughout. **Prothorax** arcuately, rapidly, and evenly increasing in width to the middle, where it is slightly narrower than long; sides thence feebly convergent posteriorly, at first sinuate; basal angles broadly rounded; anterior and posterior margins equal in length and curvature, feebly arcuate; surface transversely and feebly impressed just behind the apex, strongly tuberculate near each basal angle; finely, distantly, and evenly punctate, interspaces flat, shining, minutely reticulated. **Elytra** at base just visibly narrower than the head; sides feebly divergent posteriorly, about equal in length to width at base, nearly straight; suture about one-fifth longer than the pronotum; surface feebly impressed on the suture toward the base, coarsely, sparsely, and nearly evenly punctured; punctures rounded, generally distant by more than twice their own widths, interspaces shining, nearly flat; clavate spot beginning slightly before the middle of each elytron, extending as an oval posteriorly and outwardly. Border of abdominal segments very strong. **Legs** long and slender, black, pubescence fulvous; first joint of the posterior tarsi distinctly longer than the next two together.

Male.—Posterior edge of the fourth ventral segment just visibly emarginate in its middle two-fifths, contiguous surface feebly flattened; fifth segment emarginate in its middle two-fifths at apex, emargination nearly evenly rounded, about ten times as wide as deep, contiguous surface strongly flattened throughout; sixth segment deeply and broadly sinuate at apex, sinus evenly rounded, slightly more than twice as wide as deep; seventh segment transversely truncate at tip, lateral spines very strongly developed.

Female.—Sixth segment somewhat angularly produced at tip.

Length 4.5 mm.

White Mts., New Hampshire, 8; Garland, Colorado, 10.

The commonest of our species of this genus; when its localities are found, it seems to be numerous, but these are very seldom discovered.

The head in this species is smaller than in *zephyrus*.

2. **D. chalybeus** Lec.—Form robust. Pubescence very fine, sub-recumbent, rather close, dark piceous-brown, inconspicuous. **Head** large; interocular surface having two longitudinal, broadly rounded, and deep impressions; intermediate surface strongly and very evenly convex; punctures very fine and close, evenly distributed over the entire surface, rather feebly impressed, generally separated by their own widths; eyes narrow; antennae

slightly longer than the head and prothorax together, piceous-black, club slightly paler; third joint two-thirds longer than the fourth, fourth and fifth sub-equal; joints scarcely enlarged at tips; maxillary palpi long and very slender, piceous-brown, tips of first and third joints paler. **Prothorax** arcuately, rapidly, and nearly evenly increasing in width to a point distinctly behind the middle, where it is nearly as wide as long; sides thence very feebly convergent posteriorly and somewhat feebly sinuate; basal angles rather prominent; anterior margin much shorter than the posterior, equally and very feebly arcuate; surface very feebly and transversely impressed just behind the apex, broadly and feebly tuberculate near each basal angle, very convex in the middle; pronotum narrowly margined anteriorly and posteriorly; punctures very fine, distant, and extremely feeble in the middle, much coarser and closer near the base. **Elytra** at base about equal in width to the head; sides rather feebly divergent posteriorly, very slightly longer than the width at base, moderately arcuate; together broadly and moderately emarginate behind; suture fully one-half longer than the pronotum; surface broadly impressed on the suture in the basal half, also feebly impressed near the humeri; punctures moderate in size, very evenly distributed, distally slightly less than their own widths. Abdominal border strong, submarginally reflexed. **Legs** moderate in length, very slender, black, tarsi long and slender; first joint of the posterior slightly longer than the next two together, second much longer than the third.

Male.—Fourth ventral segment not modified; fifth feebly emarginate in its middle third at apex, emargination evenly rounded, nearly twelve times as wide as deep, contiguous surface strongly flattened, or broadly and feebly impressed throughout; sixth segment strongly sinuate at tip, sinus much wider and more broadly rounded than the apices, almost semicircular, nearly two and one-half times as wide as deep; seventh segment transversely truncate at tip, lateral spines very long and slender.

Female.—Sixth segment obtusely produced at the immediate apex, sides feebly sinuate behind; seventh segment strongly arcuate at tip.

Length 4.7 mm.

Lake Superior, 7.

The elytral spot is circular, reddish-flavate, begins slightly behind the middle of each elytron, and is much nearer the exterior than the interior margin.

The above description is taken from Dr. LeConte's type, which is a female.

This species greatly resembles the European *caerulescens* Gyll., but differs from it in the structure of the interocular surface of the head, this being relatively much narrower in the latter, which also has the central convexity much wider in relation to the lateral portions. I have before me only a female of *caerulescens*, but in several additional characters it differs from *chalybeus* to a considerable degree.

In the former the fifth segment is roundly and very distinctly emarginate in its middle third at apex, the sixth segment is much

narrower and very acutely produced at apex, with the sides not sinuate, but arcuate behind.

The spots are larger, more irregular, and surrounded by a very distinct halo of reddish-purple, which is not observable in our species; the elytral punctures vary more in size, are coarser and more distant as a rule, and the elytra are more narrowly and deeply impressed along the suture in *cærulescens*. Our species is decidedly more robust.

3. *D. zephyrus* n. sp.—Form nearly as in *nitidulus*. Pubescence excessively sparse, long, more dense and very fine on the abdomen; surface shining, minutely reticulated; spaces between the punctures nearly flat. **Head** large; interocular surface trilobed by the very strongly impressed longitudinal sulcations; intermediate surface strongly and nearly evenly convex; punctures very fine, distant by much more than their own widths on the convex portions, closely crowded, nearly coalescent in the sulcations; antennae as long as the head and prothorax together; third joint but slightly more than one-third longer than the fourth, fourth distinctly longer than the fifth, joints one to eight black, joints of club elongated, much paler; maxillary palpi long, slender, piceous-black throughout, last joint densely pubescent. **Prothorax** widest slightly behind the middle, where it is much narrower than long, suddenly and feebly constricted just behind the apex; sides strongly sinuate posteriorly; basal angles nearly right; posterior margin slightly longer and less arcuate than the anterior, the latter feebly arcuate; surface strongly and transversely impressed just behind the apex, very strongly tuberculate near each basal angle, very strongly and rather abruptly convex in the middle of the disk; punctures very minute and sparse in the middle, much coarser and closer toward the base; disk of pronotum terminated anteriorly and posteriorly by a narrow, acute, elevated border. **Elytra** at base as wide as the head; sides very feebly divergent posteriorly, distinctly longer than the width at base, feebly arcuate toward the tip; together narrowly and very deeply emarginate behind; suture one-third longer than the pronotum; surface of each elytron impressed along the sutural border toward the base; punctures coarse, round, nearly evenly distributed, distant by much less than twice their own widths. Abdominal border very strong. **Legs** long and slender: tibiae toward tips, and tarsi clothed densely with fulvous pubescence. First joint of the posterior tarsi equal in length to the next two together.

Male.—Posterior edge of fourth ventral segment just visibly emarginate in its middle fourth, contiguous surface feebly flattened; fifth segment nearly triangularly emarginate in its middle third at apex, emargination seven times as wide as deep, contiguous surface strongly flattened throughout; sixth segment deeply and broadly emarginate at tip, exterior angles of emargination pronounced, sides nearly straight, bottom broadly rounded, about twice as wide as deep; seventh segment transversely truncate at tip, lateral spines strong.

Female.—Posterior edge of fifth ventral segment very feebly and narrowly emarginate in the middle; sixth segment acutely produced at tip.

Length 4.8 mm.

Vancouver Island, British Columbia, 7.

The most salient features in the differential characters of the two species, *nitidulus* and *zephyrus*, are the structure of the antennae, punctuation of the head, pronotum, and elytra, structure of the hind tarsi, relative lengths of the pronotum and elytra, the degree of emargination of the latter behind, and slight differences in the sexual characters of the male and female. The antennal club is much more slender and paler in color in the latter species.

The species are evidently closely allied, and whether the insular conditions under which *zephyrus* has existed, have caused differences as announced above, in individuals originally of the same species, is an interesting problem, which time alone can aid us in solving.

The spots in *zephyrus* begin slightly behind the middle, are nearly circular in outline, and are distinctly nearer the external than the internal edge of the elytron.

STENUS Latreille.

The species of this genus are extremely numerous, and often very closely allied. Our representatives are all included in the three following divisions:—

Abdomen strongly and distinctly margined.

- Each elytron having a spot of orange tint near the middle of its disk....**A.**
- Elytra immaculate.....**B.**
- Abdominal border reduced to the mere line of juncture of the dorsal and ventral surfaces of the segments, only distinct on the first segment, and, in some cases, at the bases of the remainder.....**C.**

Division **A.**

In this division the species are few in number, and among the largest of the genus. They are recognizable at once by the more or less reddish-orange colored spot, of form varying according to the species, situated near the middle of each elytron. The legs are, as a rule, long and very slender, and they are nearly all rapid in their movements.

The species occurring in North America, north of the Mexican boundary, are seven in number, and may be classified as follows:—

Femora black.

- Spots extremely small, beginning distinctly behind the middle of the elytron; form very slender1. **punctiger.**
- Spots much larger, beginning at the middle of the elytron; form more robust; spots sometimes angulated2. **bipunctatus.**

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Femora not black, varying in color from dark piceous-brown to pale testaceous.

Head wider than the elytra.....3. **colon.**

Head equal in width to the elytra.

Spots strongly bilobed4. **renifer.**

Spots circular or ovoidal.

Ninth and tenth joints of antennae of equal length...5. **semicolon.**

Tenth joint of antennae much longer than the ninth.

Spots situated very near the external edges of the elytra.

6. **gemmeus.**

Spots situated very near the middle of the elytra.

7. **bilentigatus.**

1. **S. punctiger** n. sp. (Fauvel MS.).—Form moderately slender. Pubescence rather sparse, very short, semi-erect, setiform, and cinereous. **Head** robust, notably less than twice as wide as long; interocular surface two and one-half times as wide as the eye, moderately excavated, finely and rather closely punctate; longitudinal elevation broad and distinct, bordered by two sharply marked sulcations; ocular lines meeting at about two lengths in advance; antennae slender, much longer than width of head, basal joint black, remainder dark piceous, club moderate; third joint twice as long as the fourth and slightly longer than the fourth and fifth together, sixth and seventh equal in length, eighth joint thicker than the sixth, joints of club uniformly increasing in length, last two equal in thickness, last joint acuminate at tip; first joint of maxillary palpi testaceous, second and third piceous-black. **Prothorax** somewhat elongate, widest at a distance behind the anterior margin equal to one-sixth the length, sides thence parallel and very slightly arcuate for a distance equal to one-half the length, and rather rapidly convergent and sinuate for the remaining distance posteriorly; width equal to three-fourths that of head, about one-fifth narrower than long; anterior margin slightly longer and more arcuate than the posterior; surface broadly and feebly impressed on the flanks at the middle, finely, extremely closely and somewhat regularly punctured; canalicular narrow and very shallow, commencing slightly before the middle and extending posteriorly one-third the total length. **Elytra** at base as wide as the head, sides just perceptibly divergent posteriorly, much longer than wide; together broadly and very strongly emarginate posteriorly with the lateral emarginations very feeble; suture nearly one-fourth as long again as the pronotum; surface convex, rather finely, evenly, and extremely closely punctate, interspaces acute; on each elytron there is a very small, oblong, orange-yellow spot just behind the middle, and notably nearer the exterior than the interior edge. **Abdominal** segments decreasing gradually and uniformly in width, first nearly as wide as the contiguous elytra, border prominent; surface convex, closely, feebly, and coarsely punctulate; transverse carinae not cusped. **Legs** long and very slender, black throughout; first joint of posterior tarsi twice as long as the second, not equal to the next three together, joints very slender and cylindrical. Under surface of abdomen polished and extremely finely punctulate.

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Male.—Posterior edge of fifth ventral segment feebly emarginate in its middle third, emargination evenly rounded, very feeble, short, and not abruptly terminated, surface of segment cylindrically impressed for a width equal to that of the emargination, impression gradually becoming extinct anteriorly; sixth segment very broadly and triangularly incised, notch four times as wide as deep, angle very slightly rounded, surface of segment very feebly impressed; seventh segment very broadly emarginate at apex.

Female.—Unknown.

Length 3.8 mm.

Garland, Colorado, 2.

The specimen which I have associated with the type as above described, differs from it in several important points, viz.:—

The prothorax gradually increases in width posteriorly and is widest behind the middle, the club of the antennae is more compact, the tarsi are paler and slightly more robust, the emargination of the sixth segment is apparently more feeble and rounding, the upper surface has a more metallic reflection, and the general form is more robust.

I believe these differences indicate at least a well-marked variety, but there is not sufficient material at hand to decide upon their specific importance.

The surface of the pronotum and elytra in the above type is of an intense black, without lustre and without any indication of the deep steel-blue tint observable in *bipunctatus*.

2. *S. bipunctatus* Erichs.—Form moderately robust. Pubescence exceedingly fine, sparse, recumbent, and cinereous. Head very robust, much less than twice as wide as long; interocular surface deeply excavated, twice as wide as the eye, very finely punctured, interspaces flat and not equal in width to punctures; longitudinal earina very feebly developed, narrow, crest impunctate; antennal tuberculations very well developed; ocular lines meeting at one length in advance; antennae much longer than width of head, very slender, black throughout, club narrow; third joint equal in length to twice the fourth, and somewhat longer than the next two together, sixth and seventh joints equal in length, eighth short, broader than sixth, joints of club of nearly equal width, ninth and tenth sub-equal in length, eleventh joint much longer and acuminate at tip; first joint of maxillary palpi and base of the second testaceous, remainder piceous-black and densely pubescent. Prothorax increasing arcuately in width for a distance from the anterior margin equal to two-thirds the length, where it is about three-fourths as wide as the head and slightly narrower than long; sides thence rather rapidly convergent posteriorly and very strongly sinuate, anterior margin longer than the posterior, equally and feebly arcuate; surface almost evenly convex, finely, very deeply, rather evenly and exceedingly closely punctate, punctures slightly elongated laterally, interspaces very acute; canalication narrowly fusiform, deep, commencing very slightly before the

middle, and extending posteriorly a distance equal to one-third the entire length. **Elytra** at base very slightly wider than the head, sides slightly divergent posteriorly and evenly arcuate, very slightly longer than width at base; together broadly and moderately emarginate posteriorly, outer apical emarginations distinct; suture but slightly longer than the pronotum; surface evenly convex, rather coarsely, evenly, and exceedingly closely punctured, punctures elongated longitudinally near the suture, interspaces very acute; just behind the centre of each elytron there is a nearly circular reddish-orange spot. **Abdominal** segments decreasing uniformly and very gradually in width, first somewhat narrower than the contiguous elytra, border moderate; surface convex, finely, feebly, and closely punctulate; transverse carinae not cusped. **Legs** very long and slender, throughout entirely black; first joint of posterior tarsi more than twice as long as the second, as long as the next three together. Under surface of the abdomen much more finely punctulate than the upper.

Male.—Posterior edge of fifth ventral segment emarginate in its middle third, emargination evenly rounding, eight times as wide as deep, somewhat indefinitely terminated; surface at first somewhat strongly and conically, then very feebly and cylindrically impressed anteriorly; sixth segment broadly and deeply incised at apex, notch triangular, three times as wide as deep, bottom rounded; surface very feebly and cylindrically impressed; seventh segment deeply emarginate at tip and deeply impressed dorsally.

Femile.—Sixth ventral segment generally evenly rounded behind, and almost imperceptibly produced at the apex.

Length 4.4-5.0 mm.

Pennsylvania, 9; Ohio, 2; British Columbia, 4; Washington Territory, 7.

This species appears to vary considerably; the spots are sometimes small, rounded, and of a distinctly rufous-orange tint; in other specimens, generally from the Pacific coast, they are larger, of a more pure flavate color, and occasionally nearly quadrate.

There is one specimen before me, which after long deliberation I have concluded to unite with this species; it has the tarsi distinctly shorter and more robust, and the anterior margin of the prothorax slightly more arcuate, the entire form rather more slender, the sexual characters precisely the same; it is from British Columbia, and I prefer at present to consider it as a slightly aberrant specimen.

S. comma Lec. does not differ from this species to any perceptible extent.

3. **S. colon** Say.—Form slender. Pubescence of head, pronotum, and elytra exceedingly sparse and fine; that of the dorsal surface of abdomen, short, moderately close, yellowish, and setiform. **Head** slightly more than twice as wide as long; interocular surface deeply excavated, three times as wide as the eye; longitudinal elevation not well developed; punctuation close and deep; ocular lines meeting at about five lengths in advance;

antennae slender, dark brownish-testaceous, slightly longer than the width of head, club not well developed; third joint one half as long again as the fourth, fourth and fifth equal, eighth very small, nearly globular, joints of club slightly elongated, tenth about as long as the eleventh; maxillary palpi very pale yellowish-testaceous. **Prothorax** equal in length to twice the head, widest at the middle, where it is one-third narrower than the head; surface densely and deeply punctate; sides parallel and slightly arcuate through the middle half, thence rather rapidly convergent and sinuate; canalication very narrow, short, and deep, commencing very slightly behind the middle. **Elytra** at base much narrower than the head, and but slightly broader than the base of the prothorax; together deeply emarginate anteriorly, and each bisinuate at the apex; suture equal in length to the pronotum; sides considerably divergent posteriorly; humeral angles rather well developed; surface densely and closely punctate; a bilobed, reniform, flavate spot begins slightly before the middle of each, and extends posteriorly for a distance equal to one-third the length, commencing at a distance from the suture visibly less than one-half the width. **Abdominal** segments decreasing but very slightly in width, rather sparsely punctate; transverse carinae as in *renifer*, with the lateral ensps rather less developed than in that species. **Legs** long and slender, femora very pale yellowish-testaceous, shaded with fuscous at the outer third; tibiae very slender; tarsi slender, pale testaceous, first joint of posterior equal in length to the next three together. Color of under surface piceous-black, finely and sparsely punctulate.

Male.—Fifth ventral segment abruptly and deeply emarginate in its middle two-fifths, emargination evenly rounded, four times as wide as deep, the adjoining surface being impressed for a short distance, terminal teeth moderately developed; sixth segment incised as in *renifer*, though rather more broadly; seventh broadly and feebly emarginate at apex.

Female.—Sixth segment broadly and evenly rounded behind.

Length 3.6–3.9 mm.

Washington, D. C., 5; Penington Gap, Va., 2; Michigan, 1; Southern States, 5.

This species is very closely allied to *renifer* Lec.; it is, however, much smaller and more slender, and differs notably in the width of the head and punctuation of the dorsal surface of the abdomen. The sexual characters are nearly the same in both. In facies the two species are so distinct that they can be readily separated by the unaided eye.

4. **S. renifer** Lec.—Form rather slender. Pubescence of entire body very sparse, scarcely visible, cinereous on the head, pronotum, and elytra, more dense but still short and setiform on the abdomen, where it is slightly fulvous. **Head** twice as wide as long; interocular surface moderately excavated, densely and profoundly punctured; longitudinal carina moderately prominent; ocular lines meeting at two lengths in advance; antennae slender, dark brownish-testaceous, equal in length to the head and pronotum

together, club well developed; third joint a little more than one-half as long again as the fourth, fourth and fifth nearly equal, eighth notably shorter than the seventh; joints of club nearly equal, moderately elongated. **Prothorax** equal in length to twice the head, widest at mid-section where it is slightly narrower than the head; sides from this point moderately convergent posteriorly and slightly sinuate; surface densely punctate; commencing at the middle and extending for one-fourth the length there is a narrow, deep, canalicular excavation, which gradually disappears posteriorly. **Elytra** at base as wide as the head, together deeply emarginate anteriorly, and each bisinuate posteriorly; sides slightly divergent posteriorly; humeral and apical angles rounded; length of suture perceptibly greater than that of pronotum, and equal to the posterior width of elytra together; surface densely punctate, each elytron slightly swollen in the middle at the base, these elevations gradually disappearing posteriorly; a large reniform, orange-yellow spot occupies the middle posterior fourth of each elytron, commencing at a distance from the suture nearly equal to one-half its width. **Abdominal** segments decreasing but very slightly in width posteriorly; border very prominent; dorsal carinae very slightly sinuate posteriorly, acutely tricuspid. **Legs** long and slender; femora very pale testaceous, with a broad band of pale fuscous near the tips; tibiae very slender and slightly darker than the femora; tarsi very slender, posterior equal in length to three-fourths the tibiae, first and second joints with a touch of fuscous at the tips, fifth joint almost entirely pale fuscous; first joint equal in length to the next three together. First joint of maxillary palpi dark fuscous, second and third pale yellowish-testaceous. Entire under surface of body piceous-black.

Male.—Posterior edge of fifth ventral segment moderately emarginate in its middle third, with the surface bordering on the emargination slightly impressed; sixth segment triangularly incised in its middle half, notch three times as broad as deep, with its anterior angle slightly rounded; seventh segment broadly emarginate at apex.

Female.—Sixth segment broadly and evenly rounded behind.

Length 3.9–5.0 mm.

Columbus, Texas, 5; Arizona, 21.

A fine species; the orange spot is often very brilliant.

5. **S. semicolon** Lec.—Form rather slender. Pubescence of entire body very short and sparse, flavo-cinereous in color. **Head** moderate, scarcely twice as wide as long; interocular surface well depressed, three times as wide as the eye, deeply and closely punctured; longitudinal elevation well marked; ocular lines meeting at about two lengths in advance; antennae slender, but little longer than width of head, uniformly deep fuscous, club distinct; third joint one-half as long again as fourth, eighth scarcely more than one-half as long as the seventh, eleventh longer than the tenth, joints of club slightly elongated; maxillary palpi testaceous, second joint rather paler at base. **Prothorax** widest at the middle, where it is four-fifths as wide as the head; length nearly equal to twice that of head, one-fifth longer than broad; anterior and posterior margins slightly arcuate; sides evenly and divergently arcuate before, moderately convergent and slightly sinuate be-

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hind mid-section; surface deeply and closely punctured, interspaces narrow and shining; commencing at the middle and extending posteriorly a distance equal to about one-fourth the length, there is a narrow and deep emargination. **Elytra** at base about equal in width to the head, together deeply emarginate anteriorly, each bisinuate posteriorly; sides divergent posteriorly, evenly arcuate; humeral angles somewhat rounded; surface coarsely and closely punctate, and longitudinally channeled; just behind the middle of each, there is a very small orange spot. **Abdominal** segments decreasing very gradually in width posteriorly; sides of each markedly sinuate; surface rather finely and closely punctate; transverse carinae tricuspid posteriorly, with the intervals sinuate; middle cusps very narrow and cariniform. **Legs** moderately long and slender; femora and tibiae fusco-testaceous; tarsi deep fuscous, first joint of posterior nearly equal in length to the next three together. Under surface of body piebald-black, generally finely punctulate.

Male.—Third ventral segment feebly impressed throughout the middle third, margin entire; fourth segment very feebly sinuate in its middle two-fifths, surface distinctly impressed anteriorly for the same width, borders of impression densely ciliate; posterior edge of the fifth segment broadly emarginate in its middle two-fifths, emargination evenly rounded, over four times as wide as deep, surface impressed throughout in the form of a broad, rather deep channel, with the borders densely ciliated; sixth segment deeply and acutely emarginate in its middle third at apex, depth of notch equal to its width, angle rounded, surface of segment not impressed; seventh segment broadly emarginate at apex.

Female.—Sixth segment convex; length equal to breadth at base, sides evenly rounding except at the apex, which is feebly sinuate.

Length 3.8–4.4 mm.

White Fish Point, Michigan, 5; western shore of Lake Superior, 2; Marquette, Michigan, 4; District of Columbia, 1; Southern States, 1; Escanaba, Michigan, 1.

Remarkable among the spotted species, for the well-marked sexual characters of both male and female. The spots are scarcely visible in some specimens.

6. **S. gemmeus** n. sp.—Form rather slender. Pubescence of head, pronotum, and elytra scarcely visible, more dense on the head; that of dorsal surface of the abdomen a little longer, slightly fulvous, setiform, very sparse. **Head** twice as wide as long; interocular surface moderately excavated, about twice as wide as the eye, densely punctured; longitudinal ridge rather well developed; ocular lines meeting at one length in advance; antennae about equal in length to width of head, rather slender, deep brownish-testaceous, club not prominent; third joint one-half as long again as the fourth; fourth and fifth equal; joints of club equal and somewhat elongated; maxillary palpi slender, flavate throughout. **Prothorax** twice as long as the head, widest slightly before the middle, where it is slightly broader than the interocular surface; sides from widest section feebly convergent and very slightly sinuate posteriorly; surface deeply and closely

punctured and channeled; upon each side of the pronotum near the base there is a shallow impression; canaliculation nearly obsolete, commencing at the middle and not attaining the base; anterior and posterior margins arcuate. **Elytra** at base narrower than the head; together broadly emarginate at the base and apex; sides feebly arcuate and slightly divergent posteriorly; suture equal in length to the pronotum; surface very deeply and closely punctured and channeled; near the base of each elytron there is a slight elevation; orange-yellow spots small and nearly circular, very close to the outer margins, and just behind the middle. **Abdominal** segments decreasing very gradually in width posteriorly; border distinct on the first four, very narrow on the fifth and sixth; punctures rather fine and distant, becoming very fine posteriorly; transverse carinae well developed, tricuspid, intervals distinctly sinuate. **Legs** rather long, very slender, pale brownish-testaceous; femora darker in the outer half; tarsi slender; first joint of posterior rather longer than the next three together. Coxae darker than the femora. Under surface piceous-black, feebly punctate, shining.

Male.—Fourth ventral segment very feebly emarginate in its middle two-fifths, surface bordering emargination deeply impressed, border of impressed area densely clothed with long setae; fifth segment emarginate in its middle third, emargination evenly rounded, four times as wide as deep, contiguous surface broadly channeled, border of channel-like impression ciliated; sixth segment roundly emarginate in its middle third at apex, width of emargination but slightly exceeding its depth; seventh segment emarginate at apex.

Female.—Unknown.

Length 4.0 mm.

Georgia, 1.

A very distinct species in every respect.

7. *S. bilentigatus* n. sp.—Form moderately robust. Pubescence of entire body very short, fine, and setiform, extremely sparse. **Head** well developed, twice as wide as long; interocular surface well excavated, three times as wide as the eye, deeply and closely punctured; longitudinal elevation moderately prominent; antennae much longer than the width of head, slender, very deep fusco-piceous, darker toward tip, club well developed; third joint slightly more than one-third as long again as the fourth, fourth and fifth almost equal, sixth and seventh nearly equal, shorter, tenth and eleventh equal in length, each much longer than the ninth; ocular lines meeting at about one and one-half lengths in advance; maxillary palpi pale flavo-testaceous throughout. **Prothorax** widest at the middle, where it is four-fifths as wide as the head and slightly narrower than long; sides from mid-section gradually convergent and sinuate; surface deeply, closely, and rather evenly punctured; a narrow and deep canaliculation begins slightly behind the middle, and extends posteriorly a distance equal to about one-fifth the length; posterior margin nearly straight. **Elytra** at base as wide as the head, sides rather strongly divergent, arcuate; suture about one-fifth as long again as the pronotum; humeral angles rather acute; at the middle of the base of each there is a marked elevation which disappears at a very short distance posteriorly; just behind the middle and situated slightly

nearer the exterior than the interior edge, there is a small longitudinally elongated spot of flavo-testaceous tint; surface deeply, closely, and evenly punctate. **Abdominal** segments decreasing very gradually in width posteriorly, first much narrower than the contiguous elytra; border very strong; surface closely punctate; transverse carinae unicuspid, cusp elongated. **Legs** pale flavo-testaceous; femora clouded with fuscous toward tip, tarsi slender, each joint shaded with fuscous at tip; first joint of posterior equal in length to the next three together. Under surface piceous-black, abdomen distantly and finely punctulate, shining.

Male.—Fifth ventral segment emarginate in the middle third at apex, emargination evenly rounded, five times as wide as deep, terminated by rather well-developed teeth; surface of segment impressed for a short distance anteriorly; sixth segment broadly and triangularly incised in its middle half at apex, notch four times as broad as deep, angle slightly rounded; seventh broadly emarginate at apex, longitudinally impressed dorsally.

Female.—Unknown.

Length 3.3 mm.

Virginia, 1.

This species differs from *semicolon*, which it resembles very greatly in facies, in the structure of the antennal club; in the present species the tenth joint is long and cylindrical, and is equal in length to the eleventh, while in *semicolon* the tenth joint is as broad as long, and much shorter than the eleventh. It also differs very greatly in the maxillary palpi, those of *semicolon* being very dark, especially toward the tips, while in *bilentigatus* they are very pale flavate throughout. These two characters are very striking and very singular when we consider the very close resemblance in the general form of the body. The legs in *semicolon* are also very much darker than in the unique type of *bilentigatus*.

Division B.

In this division, by far the most extensive of the genus, the species enjoy a comparatively great range of variation, not only in size but in sculpture and structure of the various portions of the body. The sculpture varies to such an extent from one form to another, is apparently so constant and always so well marked and easily observed in the individual species, that it has been assumed as the basis of primary subdivision of the large number of forms here considered. The subdivisions are indicated by the following scheme:—

Punctures joined into more or less tortuous channels in at least one portion of the elytral surface, which channels exhibit an unmistakable spiral or vortex arrangement, the spiral or vortex being complete or approximately closed; single punctures more or less isolated, may also exist at other parts of the elytra.....

Punctures joined or coalescent; sometimes rarely, in twos or threes, in other cases in longer channels, in others still in very long channels, with scarcely a trace of individual punctures upon any portion of the surface. The channels when they exist may be extremely tortuous, but unless they exhibit a completed spiral vortex or whirl at one point at least, they will belong to this subdivision. The channels or punctures may be comparatively distant or very closely compacted, and the interspaces correspondingly wide or acute, convex or flat, highly polished or minutely granulose and feebly shining.

- Prothorax canaliculated.....2.
- Prothorax not canaliculated2. P. 20
- Punctures all isolated and distinct.....3.

Subdivision *a.*

The species under this title attain the highest form of development to be observed in the genus, and are generally large and robust, active and comparatively powerful.

The forms apparently demanding specific recognition may be classified as follows:—

Transverse carinae of abdomen tricuspid.

Legs black beneath.

Pronotum having, in addition to the canaliculation, a punctiform impression near each anterior and posterior angle.

Prothorax widest slightly behind the middle8. **sculptilis.**

Prothorax widest far in advance of the middle.....9. **laccophilus.**

Prothorax devoid of the punctiform impressions.

Elytral suture much longer than the pronotum.

Interocular surface rather deeply excavated; longitudinal elevation distinct; canaliculation of pronotum distinct.

Head as wide as the elytra at base10. **juno.**

Head much narrower than the elytra11. **verticosus.**

Interocular surface feebly excavated; longitudinal elevation very feeble; canaliculation of the pronotum reduced to a very slight erosion12. **tristis.**

Elytral suture rather shorter than the pronotum; body depressed; prothorax very robust13. **Austini.**

Legs not black beneath.

Form very slender; sculpture extremely coarse; interocular surface very narrow, much less than twice as wide as the eye; length 4.4 mm.

14. **rainops.**

Form more robust; interocular surface at least twice as wide as the eye; length generally much less than 4 mm.

Elytral suture about as long as the pronotum.

Sides of prothorax scarcely sinuate behind; surface of pronotum very distantly and finely punctate, very highly polished. Middle States15. **delawarensis.**

Sides of prothorax strongly sinuate behind; surface of pronotum rather densely and coarsely sculptured. Washington Territory.

16. **sectator.**

Elytral suture much longer than the pronotum.

Prothorax widest in advance of the middle; head small; slightly narrower than the elytra at base.....17. **zunicus.**

Prothorax widest at or behind the middle; head large, as wide as or slightly wider than the elytra at base.....18. **femoratus.**

Transverse carinae of abdomen rudimentarily 4-cuspid. Washington Territory19. **facomæ.**

8. **S. sculptilis** n. sp.—Form robust. Pubescence very fine, sparse, plumbeous, and almost invisible, except on the abdomen, where it is short, coarser, close, evenly distributed, sub-recumbent, and fulvous in color. **Head** moderate, more than twice as wide as long; interocular surface moderately depressed, nearly three times as wide as the eye; longitudinal elevation as wide as the lateral portions, abruptly rising, evenly and very strongly convex; punctures in this region evenly distributed, not coalescent, round, and very close, near the eyes the punctures are confusedly coalescent; ocular lines meeting at about two lengths in advance; antennae long, distinctly longer than the width of head, very slender, club prominent and loose, throughout pale picous-brown; third joint one-half longer than the fourth, fourth and fifth equal, sixth very slightly longer and somewhat less robust than the seventh, eighth two-thirds as long as the seventh, more than twice as long as wide, rather abruptly larger toward tip, joints of club of equal length, slightly longer than the eighth; maxillary palpi long, basal joint and basal half of the second rather pale piceo-testaceous, remainder pale picous-brown, third joint very long, strongly flattened; mentum having four stout yellow setae arranged transversely near the base. **Prothorax** widest in the middle, where it is five-sixths as wide as the head, and just perceptibly narrower than long; sides thence strongly convergent posteriorly and rather strongly sinuate; anterior and posterior margins equal in length, the former slightly the more arcuate; surface with two strongly impressed pits at the base, and two at the vertex, strongly tuberculate near the basal angles, transversely and strongly impressed just behind the vertex, extremely closely, deeply, and very confusedly punctured and channeled, interspaces very acute; canaluculation very strong, deeply impressed, fusiform, two-thirds as long as the pronotum, terminating slightly nearer the apex than the base, bottom sparingly punctate, edges narrowly and acutely swollen. **Elytra** at base as broad, or very slightly broader than the head; sides feebly divergent, slightly longer than the width at base, rather feebly arcuate; together broadly, angularly, and deeply emarginate behind; suture nearly one-half longer than the pronotum; surface broadly impressed on the suture at the base, rather finely, extremely closely, and irregularly channeled, channels long, deep, and very tortuous, interspaces acute. **Abdominal** segments decreasing uniformly and rapidly in width, first much narrower than the contiguous elytra; surface rather convex, extremely finely and irregularly punctulate; transverse carinae tricuspid, cusps broader than long, intervals

deep and triangular. **Legs** moderate in length, rather robust, piceo-fuscous; first joint of posterior tarsi one-half longer than the second, as long as the fifth, second joint rather shorter than the next two together.

Male.—Fifth ventral segment emarginate in its middle third at apex, emargination evenly rounded, and ten times as wide as deep, contiguous surface deeply impressed, impression in the form of an oval, distinctly longer than wide, the sides being very declivous on all sides except posteriorly, where the emargination forms its outlet, the sides become acutely ridged posteriorly, and terminate at the ends of the emargination in acute teeth, projecting slightly behind the segment, the bottom of the oval, crater-like impression is flat, minutely reticulated and pubescent; sixth segment sinuate at apex, sinus narrower than the apices, broadly rounded at the bottom, rather abruptly terminated behind, and about one-half wider than deep; seventh segment roundly, rather deeply and evenly emarginate at tip.

Female.—Unknown.

Length 4.8–5.0 mm.

Lake Tahoe, Nevada, 1; California, 1; Tenino, Washington Territory, 1.

One of the finest species of the genus, and surpassed by none in the singularity and distinctness of its sexual characters. The prothorax, also, has more striking and salient characters than perhaps any other species; the strong flattening of the third palpal joint is a character seldom seen in this tribe.

9. ***S. laccophilus*** n. sp.—Form robust. Pubescence short, coarse, evenly distributed, semi-erect and pale flavate on the abdomen, cinereous, and much less conspicuous on the remainder of the upper surface. **Head** moderate, twice as wide as long; interocular surface very feebly convex, two and three-fourths times as wide as the eye; longitudinal elevation narrower than the lateral portions, very strongly and evenly convex, prominent, sulcations prominent; punctures rather large, evenly distributed, deep, rounded, seldom coalescent, interspaces feebly shining; ocular lines meeting at one and one-half lengths in advance; antennae scarcely longer than the width of head, rather robust, piceous-black, club distinct and densely pubescent; third joint two-fifths longer than the fourth, fourth and fifth joints equal, sixth and seventh equal in length, the latter much thicker and narrow at the base, eighth slightly longer than broad, very robust, joints of club slightly increasing in length, very robust; the five outer joints are suddenly much more thickly pubescent than the preceding; maxillary palpi moderate in length, first joint flavate, second dark piceous-brown, third black, first two joints unusually robust, third unusually thin and short. **Prothorax** widest at the middle, where it is very slightly narrower than the head, and just perceptibly narrower than long; sides thence very moderately convergent posteriorly and very feebly sinuate; anterior and posterior margins equal in length, the former arcuate, the latter nearly straight; surface distinctly and longitudinally tuberculate near the basal angles, longitudinally impressed along the flanks of the pronotum, transversely impressed behind

the apex, having two small, round, shallow pits very close to the apex and somewhat near the apical angles; punctures very deep, extremely close near the base and apex; canaliculation long, narrow, distinctly and roundly impressed, terminating at very short distances from the base and apex. **Elytra** at base much broader than the head; sides feebly divergent posteriorly, rather strongly and evenly arcuate; together broadly, roundly, and distinctly emarginate behind; suture as long as the width at base, one-third longer than the pronotum; surface deeply, rather finely, extremely closely, and unevenly channeled, very confusedly punctate near the base. **Abdominal** segments decreasing uniformly and extremely gradually in width, first as wide as the contiguous elytra; surface coarsely, rather closely and evenly punctulate, more finely and distantly so posteriorly, interspaces polished; transverse carinae tricuspid, middle cusps strong, acicular toward tips, lateral much broader, somewhat shorter, expanding at tips; lateral borders very strong. **Legs** rather long and slender, piceous-black, tarsi rather robust; first joint of posterior tarsi three-fourths longer than the second, as long as the next two together, and slightly shorter than the fifth.

Male.—Unknown.

Female.—Sixth ventral segment broadly and rather obtusely rounded behind.

Length 4.0 mm.

Grimsby, Ontario, 1.

10. **S. juno** (Fab.).—Form robust. Pubescence short, sparse, evenly distributed, semi-erect, fine, and inconspicuous, cinereous. **Head** robust, scarcely twice as wide as long; interocular surface moderately depressed, nearly twice as wide as the eye, equally trilobed by the very distinct longitudinal sulcations, intermediate surface evenly and rather strongly convex; punctures coarse, very close, unequal in size, mostly coalescent, and generally longitudinally elongated; ocular lines meeting at slightly more than one length in advance; antennae much longer than the width of head, slender, piceous-brown, basal joints black, club moderate; third joint about one-half longer than the fourth, fourth slightly longer than the fifth, sixth and seventh equal in length, the latter slightly thicker, eighth as thick as the seventh, twice as long as wide, ovoidal, very narrow at base, joints of club increasing gradually in length and thickness; maxillary palpi very long and slender, first and second joints flavo-testaceous, third rather pale piceous-brown, very slender. **Prothorax** widest at the middle, where it is five-sixths as wide as the head, and very slightly narrower than long; sides thence moderately convergent posteriorly and nearly straight; surface feebly swollen near the basal angles, transversely and feebly impressed just behind the vertex, rather coarsely, closely, and evenly punctate, punctures coalescent toward the base and apex; canaliculation very feeble, two-thirds as long as the pronotum, terminating at equal distances from the base and apex. **Elytra** at base just perceptibly narrower than the head; sides moderately divergent posteriorly, slightly longer than the width at base, nearly straight anteriorly, arcuate near the apices; together broadly, roundly, and rather strongly emarginate behind; suture one-seventh longer than the pronotum;

surface very feebly depressed on the suture at the base, coarsely, deeply, extremely closely punctured and channeled. **First** four abdominal segments equal in width and much narrower than the contiguous elytra; surface coarsely, deeply, and moderately sparsely punctulate; transverse carinae trienspid, middle cusps long and acicular, lateral short and inconspicuous. **Legs** black above, tibiae and tarsi piceous beneath, slender, posterior femora conspicuously and very densely clothed with long flavo-cinereous pubescence along the posterior edge, first joint of posterior tarsi much more than twice as long as the second, longer than the next three together, and three-fourths longer than the fifth, joints very slender.

Male.—First ventral segment having a short, narrow, longitudinal, and prominent carina, terminating at its posterior edge; second segment having a similar carina, which does not attain the posterior edge; third segment emarginate in its middle twelfth at apex, emargination evenly rounded and very feeble, surface having a carina similar to that of the first segment, which nearly attains the emargination; fourth segment emarginate in its middle fifth at apex, emargination more acutely rounded at the bottom, about eight times as wide as deep, continuous surface feebly impressed for two-thirds the length anteriorly, carina similar to that of the first segment, though slightly longer, nearly attaining the emargination; fifth segment very deeply excavated in its middle two-fifths, bottom of excavation not punctate, nearly flat, and declivous posteriorly, as long as wide, sides in the form of overhanging, very acute ridges; anteriorly there is a carina similar to that of the first segment, posteriorly the thin edge of the excavation is deeply emarginate in its middle half, emargination one-half deeper than wide, transverse at bottom, sides nearly parallel; sixth segment sinuate at apex, sinus very narrow and deep, acutely rounded at the bottom, much deeper than wide, apices acutely rounded; seventh segment dentate laterally behind, and bearing on each side a long coarse seta.

Female.—Sixth segment strongly narrowed posteriorly, bilobed at apex. Length 4.5 mm.

Cambridge, Mass., 8; Michigan, 12; Texas, 1; Canada, 6; Washington Territory, 7; Vancouver Island, 1.

In the female the abdominal segments are much broader and have the sides feebly convergent posteriorly. There are few species of the order Coleoptera having sexual characters so distinct and complicated as those seen in this little species; a clear description of the fifth segment of the male would be almost impossible. It is, perhaps, cosmopolitan, being a very common species in Europe as well as in America.

11. **S. verticosus** n. sp.—Form robust. Pubescence very fine, sparse, irregular, cinereous, and almost invisible. **Head** small, twice as wide as long; interocular surface nearly flat, more than twice as wide as the eye; longitudinal elevation slightly narrower than the lateral portions, very strongly and evenly convex, prominent, sulcations parallel and distinct,

behind the antennae there are pits bordering immediately upon the eye; punctures fine, rounded, very unevenly distributed, interspaces shining, feebly convex; ocellar lines meeting at one length in advance; antennae longer than width of head, slender, piceous-black, club strong, clothed with pale piceo-cinereous pubescence; third joint one-half longer than the fourth, fourth and fifth equal, sixth and seventh equal in length, the latter two-thirds thicker, eighth thicker than the seventh, almost exactly globular, joints of club increasing in length, last two much larger than the ninth, sub-equal in thickness; maxillary palpi rather long, first joint and base of second piceo-testaceous, second twice as long as the first, piceous-black, third rather long, piceous-black, rather abruptly enlarged toward the tip, and somewhat sigmoid. **Prothorax** robust, widest slightly in advance of the middle, where it is nearly as wide as the head and distinctly narrower than long; sides thence very feebly convergent posteriorly and straight; anterior and posterior margins very feebly and equally arcuate, sub-equal in length; apical and basal angles not rounded; surface feebly and broadly tuberculate near the basal angles, transversely impressed behind the vertex, rather finely, somewhat deeply, very closely, and confusedly channeled; canalliculation very narrow and distinct, terminating within one-fifth the pronotal length of the base and apex. **Elytra** at base much wider than the head; sides feebly divergent posteriorly, nearly straight toward the humeri, distinctly arcuate toward the vertices; together very broadly, roundly, and rather feebly emarginate behind; suture slightly longer than the width at base, one-third longer than the pronotum; surface very deeply, extremely closely, rather coarsely, and very irregularly channeled; there are two completed vortices at the base, and one near the apex of each elytron. **Abdominal** segments decreasing uniformly and extremely gradually in width, first very slightly narrower than the contiguous elytra; surface very feebly convex, finely, rather distantly and evenly punctulate, shining; border very strong; transverse carinae tricuspid, middle cusps finely acuminate, lateral very short and rudimentary. **Legs** rather short, slender, black; first joint of posterior tarsi two-thirds longer than the second, much shorter than the fifth, second very slightly longer than the third; all robust.

Male.—Fourth and fifth ventral segments emarginate in the middle two-fifths at apex, emargination of the former rounded and very feeble, that of the latter evenly rounded, strong, about four times as wide as deep, contiguous surface of fourth impressed feebly for a short distance, that of fifth strongly impressed nearly throughout, impression having the lateral borders in the form of acute ridges, all depressed areas being bordered by a very dense line of erect, coarse, flavate setae; sixth segment sinuate at tip, sinus narrower and more acutely rounded than the apices, more than one-half wider than deep; seventh segment roundly emarginate at tip.

Female.—Sixth ventral segment rather acutely rounded behind, surface finely reticulated and minutely punctulate.

Length 4.0 mm.

Vancouver Island (Crotch), 1; Washington Territory, 6.

In this species the vortex arrangement of the elytral sculpture may be seen in a highly developed state. In none other of our species is it so conspicuous.

12. *S. tristis* n. sp.—Form moderately robust. Pubescence short, moderately close, evenly distributed, semi-erect, rather fine, plumbo-cinereous. **Head** moderate, rather robust, twice as wide as long: interocular surface nearly flat, twice as wide as the eye, longitudinal elevation as wide as the lateral portions, feebly and evenly convex; punctures small, round, rather close, sub-variolate, evenly distributed, isolated; ocular lines meeting at one length in advance; antennae very dark piceous-brown or piceous-black; third joint distinctly longer than the second. **Prothorax** robust, widest at slightly more than one-third of its length posteriorly, where it is nearly as wide as the head, and just perceptibly narrower than long; sides rather strongly convergent posteriorly and nearly straight; anterior margin slightly longer than the posterior, nearly equally areolate; surface feebly tuberculate near the basal angles, very feebly so near the apical angles, upper surface of pronotum nearly flat; punctures small, very variable in shape and size, close, rather evenly distributed, seldom coalescent, interspaces narrow, slightly convex and feebly polished; canalication very short, nearly as broad as long, beginning at the middle, and one-fifth as long as the pronotum, very feebly impressed, bottom punctate. **Elytra** at base as wide or just perceptibly wider than the head; sides rather feebly divergent posteriorly, longer than the width at base, very feebly and evenly arcuate; together broadly and very feebly emarginate behind; suture one-third longer than the pronotum; surface very feebly impressed along the suture, more particularly toward the base, feebly convex, closely, somewhat feebly, finely, and irregularly punctate, punctures generally variable in shape and size, seldom actually coalescent near the base, where they are closely crowded, polygonal in some places, isolated and round in others, more coalescent posteriorly; spiral near the apex and outer edge, very indefinite and feeble. **Abdominal** segments decreasing nearly uniformly and extremely gradually in width, first just perceptibly narrower than the elytra; surface coarsely, deeply, evenly, and closely punctulate; punctures impressed, interspaces very convex and highly polished; transverse carinae tricuspid, middle cusps finely acicular, lateral rather coarsely aceminate, a little shorter and strongly inclined inward. **Legs** moderate in length, slender, piceous-black; first joint of posterior tarsi two-thirds longer than the second, slightly shorter than the last, and slightly longer than the next two together.

Male.—Posterior edge of the fifth ventral segment just perceptibly emarginate in its middle third, emargination evenly rounded and not measurable, contiguous surface bearing slight elevences of flattening; sixth segment sinuate at apex, sinus narrower than the apices, and more acutely rounded, slightly more than twice as wide as deep; seventh segment very feebly and roundly emarginate at tip.

Female.—Unknown.

Length 3.3 mm.

Gilroy, California, 1.

The antennae with exception of the first three joints, and also the maxillary palpi are wanting in the type.

13. **S. Austini** n. sp. (Fauvel MS.).—Form moderately slender, sides parallel. Pubescence fine, evenly distributed, moderately short, rather sparse and inconspicuous, cinereous. **Head** large, not twice as wide as long; interocular surface very feebly depressed, scarcely twice as wide as the eye, longitudinal elevation much narrower than the lateral portions, rather acutely and strongly convex, prominent; punctures fine, rounded, very closely crowded, evenly distributed, not coalescent; ocular lines meeting at one length in advance; eyes very large, wide, and prominent; antennae very slightly longer than the width of head, rather slender, dark piceous, club prominent; third joint one-fourth longer than the fourth, fourth perceptibly longer than the fifth, sixth shorter, very slightly longer than the seventh, eighth slightly elongated, joints of club increasing in length, last two more robust than the ninth; maxillary palpi slender, first two joints pale piceo-testaceous, third pale piceous-brown. **Prothorax** robust, arcuately, evenly, and rapidly increasing in width to the middle, where it is slightly narrower than long; sides thence rather rapidly convergent posteriorly and nearly straight; anterior margin slightly longer and just visibly more arcuate than the posterior; surface strongly tuberculate near the basal angles, broadly and feebly swollen behind the apical angles, transversely impressed behind the apex, finely, extremely closely, and somewhat evenly, though at some points rather confusedly punctured; canaliculation prominent, impressed, narrow, beginning at one-third the length from the apex and nearly one-half as long as the pronotum. **Elytra** at base very much narrower than the head; sides moderately divergent posteriorly, longer than the width at base, nearly straight; together broadly, roundly, and distinctly emarginate behind; suture somewhat shorter than the pronotum; surface depressed, nearly even, coarsely, closely, and irregularly punctate, scarcely channeled, but the punctures at a spot behind the middle seem to indicate an obscure vortex whirl, in most specimens it is quite distinct under suitable magnifying power. **First** four abdominal segments very slightly wider than the contiguous elytra; sides parallel and very feebly arcuate; border very strong, suddenly much narrower on the fifth segment; surface feebly convex, rather strongly, closely, and evenly punctulate, interspaces polished; transverse carinae tricuspid, middle cusps broad and coarsely acuminate, lateral excessively short and rudimentary. **Legs** rather long and slender, dark fuscous; first joint of posterior tarsi much more than twice as long as the second, much longer than the next three together, and three-fourths longer than the last.

Male.—Fourth ventral segment very feebly and just perceptibly emarginate in the middle fourth, with the contiguous surface very feebly impressed; fifth segment strongly emarginate in its middle fourth at apex, emargination evenly rounded, six times as wide as deep, contiguous surface cylindrically impressed throughout anteriorly; sixth segment strongly sinuate at apex, sinus about equal in width and curvature to the apices, rather acutely

rounded at the bottom, about twice as wide as deep; seventh segment broadly and feebly emarginate at tip.

Female.—Sixth ventral segment rather acutely rounded behind.

Length 3.4–3.8 mm. (in an exceptional case 3.2 mm.).

New Hampshire (White Mts.), 4; Lake Superior (Marquette, Michipicoten River, Gargantua, Isle Royale), 60; British Columbia, 1.

From the above list of localities this species is shown to have a very extensive range; it is also very abundant. Although very distinct in facies, the vortex spot is so indistinct that isolated specimens may not be placed at first in the subdivision to which it is here referred. The several characters appear to vary very slightly in degree, more particularly in the degree of cylindrical impression of the fifth segment. The specimen from British Columbia has the punctuation of the pronotum a little less dense, and that of the elytra a little finer and deeper, but otherwise it exactly resembles the Eastern representatives.

14. *S. ranops* n. sp.—Form very slender. Pubescence excessively fine, short, and sparse, nearly invisible. **Head** very robust, much less than twice as wide as long; interocular surface not twice as wide as the eye, distinctly depressed, longitudinal elevation very narrow, fusiform, short, strongly and evenly convex, impunctate and somewhat prominent; punctures very close, rather fine, confusedly coalescent; ocular lines meeting at slightly more than one length in advance; antennae much longer than the width of head, slender, piceous-brown throughout, club moderate; third joint very long and slender, feebly curvate, slightly more than one-half longer than the fourth, fourth and fifth joints equal, sixth very slightly shorter and distinctly more slender than the seventh, abruptly much shorter than the fifth, eighth three-fourths longer than wide, as thick as the seventh, oval, joints of club increasing uniformly and rapidly in length, uniformly and very gradually in width; joints three, four, and five together are as long as the remaining six together; maxillary palpi very long and slender, very pale flavate throughout; mentum bearing two flavate setae near the base. **Prothorax** widest at the middle, where it is three-fourths as wide as the head, and nearly one-fifth narrower than long; sides thence nearly straight anteriorly, nearly equally convergent and very feebly sinuate posteriorly; anterior margin shorter and much more arcuate than the posterior; surface rather coarsely and extremely irregularly sculptured; canaliculation obscurely defined, just behind the middle it is visible as a very distinct but indefinitely outlined impression. **Elytra** at base narrower than the head; sides very feebly divergent posteriorly, longer than the width at base, feebly arcuate, more distinctly so toward the apices; together broadly and rather feebly emarginate behind; suture slightly longer than the pronotum; surface rather broadly depressed toward the base, very coarsely, extremely closely, deeply, and irregularly channeled, interspaces acute. **Abdominal** segments decreasing uniformly and extremely gradually in width, first distinctly nar-

rower than the contiguous elytra; surface somewhat narrowly and strongly convex, finely, feebly, evenly, and distantly punctulate, interspaces highly polished; transverse carinae tricuspid, cusps all rounded, broad, somewhat prominent, and becoming amalgamated with the general surface of the segment. **Legs** long and slender, pale rufo-piceous; first joint of posterior tarsi more than three times as long as the second, and twice as long as the fifth, joints two to four uniformly and gradually decreasing in length.

Male.—Surfaces of the third and fourth ventral segments flattened throughout their middle fourth and third respectively, edges of flattened area provided with very long downwardly and inwardly curvate setae, edges of segments scarcely modified; fifth segment emarginate in its middle third at apex, emargination evenly rounded throughout, slightly more than four times as wide as deep, contiguous surface deeply and cylindrically impressed throughout anteriorly, borders of impression having setae similar to those of the third and fourth segments; sixth segment sinuate at apex, sinus scarcely one-half as wide as the apices, acutely rounded at bottom and at the exterior angles, slightly wider than deep; seventh segment very deeply, broadly, and roundly emarginate at apex, teeth well developed, directed inward.

Female.—Unknown.

Length 4.4 mm.

Southern States (locality not specified), 1.

A very distinct and unmistakable species.

15. ***S. delawarensis*** n. sp.—Form slender. Pubescence very short and fine, longer on the abdomen, where it is recumbent, fusco-cinereous. **Head** moderate, twice as wide as long; interocular surface nearly flat, two and one-half times as wide as the eye, equally trilobed by the distinct sulcations, intermediate surface rather strongly and evenly convex; punctures round, minute, and evenly distributed, interspaces as wide as the punctures, polished; ocular lines meeting at one and one-half lengths in advance; antennae slender, slightly longer than width of head, piceous, basal joints darker, club moderate; third joint one-third as long again as the fourth, fourth and fifth equal in length, seventh twice as long as the eighth, joints of club increasing in length, last joint acuminate at tip; maxillary palpi piceous, first joint paler. **Prothorax** widest before the middle, where it is one-fifth narrower than long; sides thence feebly convergent posteriorly and nearly straight; posterior margin slightly longer than the anterior, equally areolate; surface with two rudimentary tuberculations at each side, very feebly, minutely, and somewhat irregularly punctate, interspaces generally twice as wide as the punctures, shining; canalication well marked, fusiform, bottom rounding, commencing before the middle and extending posteriorly a distance equal to one-half the total length, deeper posteriorly. **Elytra** at base about as wide as the head; sides feebly divergent posteriorly and very feebly areolate, about equal in length to width at base; together very broadly and somewhat feebly emarginate posteriorly; suture equal in length to pronotum; surface slightly impressed on the suture, rather depressed, very unevenly punctured, near the inner basal angles the punctures are very fine and round, interspaces twice their width, shining; near the outer apical angles,

there is an oval patch which is coarsely, very closely, and tortuously channeled. **Abdominal** segments decreasing extremely gradually and regularly in width, first as wide as the contiguous elytra; border at first very prominent: surface convex, extremely finely punctulate; transverse carinae tricuspid, middle cusps fine and acicular, lateral rudimentary, intervals broadly sinuate. Under surface piceous. **Legs** moderate, pale piceous-brown; first joint of posterior tarsi two-thirds longer than the second, second nearly as long as the third and fourth together.

Male.—Unknown.

Female.—Posterior edge of the sixth ventral segment very evenly rounded. Length 3.3 mm.

Middle States, 1.

The elytral sculpture of this species is so peculiar that it can scarcely be mistaken if at all constant; the oval channeled patch is quite isolated in a generally smooth field.

16. **S. sectator** n. sp.—Form very moderately robust. Pubescence rather short, coarse, semi-erect, much more plentiful along the sides of the abdomen, fulvous throughout. **Head** moderate in size, twice as wide as long; interocular surface moderately depressed, longitudinal elevation narrower than the lateral portions, very strongly and evenly convex, sulcations very prominent; punctures close, deep, rather confused, longitudinally elongated; ocular lines meeting at one length in advance; antennae slender, slightly longer than the width of head, basal joint black, remainder rather pale piceous-brown, club moderate; third joint slightly less than one-half longer than the fourth, fourth and fifth equal in length, sixth very slightly longer and much thinner than the seventh, eighth nearly twice as long as wide, slightly thinner than the seventh, and as long as the ninth, joints of club increasing in length, last two of equal thickness and more robust than the ninth; maxillary palpi piceous-brown throughout, first joint scarcely perceptibly paler. **Prothorax** widest at the middle, where it is distinctly narrower than long; sides thence equally convergent anteriorly and posteriorly, slightly arcuate in the former, deeply sinuate in the latter direction; anterior and posterior margins nearly equal in length and curvature; surface distinctly tuberculate at a short distance from each basal angle, and slightly impressed on the flanks of the pronotum in the middle, finely, very closely, confusedly punctate, interspaces granulose and scarcely shining; canaliculation short, narrow, and very deep, cleft-like, one-half as long as the pronotum, beginning slightly before the middle. **Elytra** at base as wide as the head; sides feebly divergent posteriorly, slightly longer than the width at base, distinctly and nearly evenly arcuate; together broadly and very moderately emarginate behind; suture nearly one-fourth longer than the pronotum; surface feebly impressed on the suture at the base, moderately coarsely, closely, somewhat deeply, and very irregularly punctured and channeled, interspaces as on the pronotum, though slightly broader. **Abdominal** segments decreasing just perceptibly in width, first slightly narrower than the contiguous elytra; surface finely and closely punctulate, and dis-

tinely granulose; transverse carinae trienspid, lateral ensps much smaller than the middle, the latter finely and rapidly acuminate toward tips. **Legs** moderate, dark piceous-brown, nearly black above, dark fusco-piceous beneath; first joint of the posterior tarsi four-fifths longer than the second, and as long as the next two together, slightly longer than the last. Body winged.

Male.—Fourth ventral segment cylindrically and feebly impressed in its middle third, edge entire; fifth segment emarginate in its middle third at apex, emargination evenly rounded and nearly seven times as wide as deep, contiguous surface cylindrically and rather deeply impressed nearly throughout anteriorly; sixth segment sinuate at apex, sinus much narrower and more acutely rounded than the apices, slightly more than one-third wider than deep; seventh segment broad and robust, nearly transversely truncate at tip, lateral setae small.

Female.—Sixth segment very broadly and evenly rounded behind.

Length 3.4-4.0 mm.

Washington Territory (Thurston Co. and Tenino), 4.

17. **S. zunicus** n. sp.—Form somewhat robust. Pubescence rather close, coarse, more abundant on the abdomen, where it is very pale flavo-chitinous, elsewhere plumbeo-chitinous. **Head** moderate, twice as wide as long; interocular surface just perceptibly depressed, more than twice as wide as the eye, longitudinal elevation as wide as the lateral portions, evenly and feebly convex; punctures moderate in size, rounded, deep, isolated and unevenly distributed, interspaces nearly flat and somewhat polished; ocular lines meeting at fully two lengths in advance; antennae longer than the width of head, slender, basal joints black, remainder dark piceous-brown, club distinct; third joint scarcely one-eighth longer than the fourth, joints three to six uniformly decreasing in length, sixth and seventh equal in length, the latter much the thicker, eighth one-half longer than wide, strongly conical, base small, joints of club increasing very gradually in length, nearly of equal width; maxillary palpi well developed, first joint dark piceous-brown, second slightly darker, third piceous-black, nearly as long as the first and second together, rather robust, densely setose. **Prothorax** arcuately, almost evenly and rapidly increasing in width to the middle, where it is six-sevenths as wide as the head, and distinctly narrower than long; sides thence feebly convergent posteriorly and slightly sinuate; anterior margin shorter and much more arcuate than the posterior; surface tuberculate near the basal angles, finely, deeply, and somewhat closely punctate, punctures somewhat rounded and distinct, crowded anteriorly, and isolated by nearly their own widths in the middle, interspaces rather feebly convex and shining; canalication beginning at the middle, one-third as long as the pronotum, rather narrow, impressed, somewhat shallow but distinct. **Elytra** at base as wide as the head; sides rather feebly divergent posteriorly, slightly longer than the width at base and very feebly arcuate, more strongly so toward the apices; together broadly, roundly, and distinctly emarginate behind; suture nearly one-third longer than the pronotum; surface strongly and broadly impressed on the suture at the base, also very feebly so near the humeri, somewhat closely, finely, and very irregularly punctate, somewhat channeled

in the neighborhood of the spiral just behind the centre, and near the exterior margin of each elytron, interspaces somewhat flat and shining near the suture and the base. **Abdominal** segments decreasing uniformly and gradually in width, first very slightly narrower than the contiguous elytra; surface strongly, finely, somewhat closely and evenly punctulate, much more minutely so posteriorly, interspaces highly polished and flattened; transverse carinae tricuspid, cusps all long and nearly of equal length, middle finely acicular, lateral rather coarsely acuminate. **Legs** moderate, piceous-black above, fuscous beneath; first joint of posterior tarsi two-thirds longer than the second, as long as the next two together, and as long as the fifth.

Male.—Third and fourth ventral segments just visibly emarginate in the middle fourth and third respectively, contiguous surfaces very feebly flattened; fifth segment emarginate in the middle third at apex, emargination more acutely rounded at the bottom, sides nearly straight, six times as wide as deep, contiguous surface strongly flattened throughout anteriorly; sixth segment very deeply and strongly bilobed at tip, cusp narrow, arms near the apex nearly straight, point very slightly rounded, emargination nearly twice as wide as deep; seventh segment deeply emarginate at tip, bottom of emargination nearly transverse, teeth strong.

Female.—Sixth segment broadly and evenly rounded behind.

Length 3.4–4.0 mm.

Arizona (Morrison), 5.

18. **S. femoratus** Say.—Form moderately robust. Pubescence short, coarse, rather sparse, sub-erect, fulvous on the abdomen, cinereous elsewhere. **Head** robust, more than twice as wide as long; interocular surface distinctly depressed, twice as wide as the eye; longitudinal elevation slightly narrower than the lateral portions, evenly and moderately convex, sulcations rather prominent; punctures fine, rounded, evenly distributed, and in exceedingly close contact; ocellar lines meeting at nearly one length in advance; antennae very slightly longer than the width of head, slender, basal joint black, remainder piceous-brown, club darker and prominent; third joint one-third as long again as the fourth, fourth and fifth equal, sixth and seventh equal in length, the latter slightly more robust, eighth joint one-half longer than wide, oval, as thick as the seventh, joints of club increasing slightly in length, elongated, last two of equal width; maxillary palpi slender, pale piceous-brown, basal joint and base of the second pale piceo-testaceous, third joint very long and somewhat sigmoid. **Prothorax** widest slightly behind the middle, where it is very slightly narrower than the head, and slightly narrower than long; sides thence equally convergent anteriorly and posteriorly; anterior margin much shorter than the base, the former very arcuate, the latter very feebly so; surface strongly tuberculate at a short distance from each basal angle, transversely impressed just behind the apex, finely, extremely closely and irregularly punctate; canalication beginning slightly before the middle, one-third as long as the pronotum, narrow, acute at bottom, and very deep, conspicuous. **Elytra** at base very slightly narrower than the head; sides moderately divergent posteriorly, as long as width at base, rather strongly arcuate, more particularly toward the apices; together

broadly, roundly, and rather strongly emarginate behind; suture very slightly longer than the pronotum; surface convex, very feebly impressed on the suture at the base, rather finely, very deeply, exceedingly closely and irregularly channeled. **Abdominal** segments decreasing uniformly and rapidly in width, first distinctly narrower than the contiguous elytra; surface finely, very closely, and evenly punctulate; transverse carinae trienspid, middle cusps fine and aciculate, lateral very short. **Legs** short and robust, pale piceo-rufous; first joint of posterior tarsi two-thirds as long again as the second, and as long as the last, joints two to four uniformly and rapidly decreasing in length.

Male.—Second, third, and fourth ventral segments having in the middle and at the apex a small triangular area, which is lustreless and very minutely reticulated; fifth segment emarginate in its middle fourth at apex, emargination evenly rounded, eight times as wide as deep, contiguous surface feebly impressed; sixth segment triangularly incised at the apex, incisure slightly wider than deep; seventh segment broadly and triangularly emarginate at apex.

Female.—Sixth segment broadly and evenly rounded behind.

Length 3.4–4.2 mm.

Detroit, Michigan, 16; Illinois, 1; Washington, D. C., 1; Grimsby, Ontario, 2.

A very distinct species in many ways, more especially, however, in the curious triangular patches at the apices of the ventral segments in the male. The male sexual characters seem to vary not a little in degree, and specimens are seen in which the emargination of the fifth segment is just perceptible, and in which the angle of the incisure at the apex of the sixth segment is distinctly rounded. Definite varieties or subspecies may be indicated by these variations.

19. *S. tacomæ* n. sp.—Form very moderately robust. Pubescence fine, very sparse, except along the sides of the abdomen, short, semi-erect, flavo-cinereous. **Head** moderate, twice as wide as long; interocular surface rather deeply excavated, nearly three times as wide as the eye, equally trilobed by the longitudinal sulcations, which are feeble; intermediate surface feebly and evenly convex, punctures rather fine; ocular lines meeting at about one length in advance, strongly convex; antennae longer than width of head, robust, black, club distinct; third joint fully one-half as long again as the fourth, fourth and fifth equal, sixth slightly longer and distinctly less robust than the seventh, eighth nearly twice as long as wide, cordate, joints of club of nearly equal width, slightly increasing in length. **Prothorax** widest slightly before the middle, where it is distinctly narrower than long; sides thence very moderately convergent posteriorly; anterior margin slightly longer and more arcuate than the posterior; surface nearly evenly convex, very finely, exceedingly closely, and irregularly punctured and channeled, interspaces acute; canaliculation very short and feeble, beginning slightly before the middle, and equal in length to one-third that of the pronotum. **Elytra** at base as wide as the head; sides nearly parallel, much longer than

the width at base, and very feebly arcuate; together somewhat narrowly, roundly, and very strongly emarginate behind; suture one-sixth as long again as the pronotum; surface somewhat feebly convex, nearly even, exceedingly closely and very irregularly channeled, interspaces very acute. **Abdominal** segments decreasing uniformly and moderately rapidly in width, first just perceptibly narrower than the contiguous elytra; surface coarsely granulose and lustreless; margin very strong; transverse carinae not cuspied. **Legs** rather long and slender, black; first joint of the posterior tarsi much elongated, two-thirds as long again as the second, and much longer than the last, second joint nearly as long as the third and fourth together; tarsi of nearly equal thickness throughout, rather slender.

Male.—Fifth ventral segment very feebly emarginate in its middle third at apex, emargination evenly rounded and scarcely measurable, contiguous surface feebly and cylindrically impressed throughout anteriorly; sixth segment sinuate at apex, sinus rather wider and more feebly rounded than the apices, evenly rounded, and about five times as wide as deep; seventh segment triangularly and moderately emarginate at apex, lateral setae well developed.

Female.—Unknown.
Length 3.0 mm.

Thurston County, Washington Territory, 1.

A closer scrutiny reveals the fact that the transverse carinae on some of the segments appear to be very minutely 4-cuspid, on others even this sign disappears, and there is nothing to be seen but an irregular denticulation of the carinal edge. This conformation will immediately distinguish the species from several others from the same region; the latter having the carinae distinctly tricuspid.

Subdivision *B*.

This subdivision contains a very large proportion of the species of division *B*; they may be resolved for sake of convenience into three arbitrary groups as follows:—

Length exceeding 2 mm.

- Elytral suture not more than one-third longer than the pronotumI.
- Elytral suture at least one-half longer than the pronotumII.
- Minute species not exceeding 2 mm. in length.....III.

Group I.

We are still confronted in this group by nearly one-half the entire number of species of the genus *Stenus*, and their tabulation in such a manner as to give a useful and succinct character to each form is almost an impossibility. We may, however, simplify the subject slightly, by the following subgrouping:—

Transverse carinae of abdomen tricuspid.....	<i>a.</i>
Transverse carinae 4-cuspid	<i>b.</i>
Transverse carinae not cuspid	<i>c.</i>

Subgroup *a.*

In this subgroup I have employed several subsidiary characters, depending upon the form of body and sexual modification of the male in order to form four sections as follows:—

§

Form extremely slender, nearly cylindrical; elytra much shorter than the prothorax; head much wider than the elytra; length 3.1–3.4 mm.

20. **strangulatus.**

§§

Form very slender, conspicuously depressed; sides nearly parallel; abdomen fully as wide as the contiguous elytra; segments decreasing extremely slowly in width, and usually strongly extended after death; length 2.8–3.7 mm.*

Prothorax widest distinctly before the middle.

Elytral suture and pronotum nearly equal in length.

Form excessively slender; elytral punctures coarse and rather distant.

21. **tenuis.**

Form slightly more robust; elytral punctures finer and closely crowded

22. **angustus.**

Elytral suture much longer than the pronotum.

Sixth ventral segment ♂ deeply and rather narrowly sinuate posteriorly

23. **difficilis.**Sims of sixth segment ♂ extremely broad and feeble...24. **Pettiti.**

Prothorax widest at or slightly behind the middle

25. **scrupus.**

§§§

Male having the lateral borders of the impressed area of the fifth ventral segment, in the form of ridges which terminate posteriorly in acute teeth. Large species. Length 3.7–4.8 mm.

* The insects in this small section increase gradually in robustness in the order given from *tenuis*, which is very slender and more filiform than any other within our territory, to *scrupus* which, although elongated, is slightly more robust than two or three of the next section, as, for instance, *subtilis*, *indigenus*, and *ingratus*; it will therefore be merely safer, if the species be a slender one, to first consult this table and its accompanying descriptions before proceeding to the larger table following. The section is retained distinct because of the depressed appearance as well as the slender form of the species comprised within its limits. The protrusion of the abdomen may result from the manner in which the insects are killed; if in alcohol the abdomen is generally protruded. I can only state that in all the specimens before me the abdomen is extended, and do not pretend to assert that this is a physiological peculiarity.

- Head wide and robust, as broad as or broader than the elytra.
 Legs black.....26. **intrusus.**
 Legs rather pale piceous-brown.....27. **erythropus.**
 Head small, narrower than the elytra; punctation much closer.
 Punctures of abdomen extremely closely crowded; surface opaque. Head
 less than twice as wide as long. Colorado.....28. **rugifer.**
 Punctures of abdomen less crowded; interspaces distinctly visible, skin-
 ling. Head distinctly more than twice as wide as long. White Moun-
 tains, N. H.29. **anastomozus.**

§§§§

The following table is simply intended as an indication of the approximate position of the species, and is only to be depended upon as an aid to the consultation of the descriptions:—

- Elytral suture in length equal to or shorter than the pronotum.
 Prothorax wider than long, scarcely narrower than the head. Form
 robust, depressed.....30. **shoshonis.**
 Prothorax narrower than long.
 Large species 4.0-4.2 mm. in length, slender. Vancouver Island.
 31. **insularis.**
 Species not exceeding 3.1 mm. in length.
 Robust, depressed; elytral sculpture very coarse. Washington Terri-
 tory.....32. **vexatus.**
 Much more slender, rather convex or sub-cylindrical; elytral sculp-
 ture rather fine and even. Massachusetts.
 Prothorax widest before the middle.
 Species 2.8-3.0 mm. in length; head large; interocular surface
 rather deeply excavated.....33. **Schwarzzi.**
 Species 2.1-2.3 mm. in length; head small.
 Longitudinal elevation of interocular surface distinct; sides of
 elytra distinctly divergent posteriorly.....34. **pauper.**
 Longitudinal elevation obscure; sides of elytra almost exactly
 parallel.....35. **subtilis.**
 Prothorax widest behind the middle.....36. **indigenus.**
 Elytral suture longer than the pronotum.
 Species 3.0 mm. or more in length.
 Longitudinal elevation of interocular surface indistinct or nearly obsolete.
 Canaliculation of prothorax very short, rather conspicuous, situated
 behind the middle. Oregon.....37. **simplex.**
 Canaliculation very feeble, extending nearly the entire length of
 the pronotum. District of Columbia, Pennsylvania, Alabama.
 38. **vicinus.**
 Canaliculation excessively feeble, being reduced to a simple erosion,
 situated just behind the middle.....39. **ingratus.**
 Longitudinal elevation of interocular surface distinct.
 Large species, about 4.0 mm. in length.....40. **neglectus.**
 Smaller species, not exceeding 3.3 mm. in length.

Head large, much wider than the elytra at base....41. **scabiosus**.

Head small, narrower than the elytra at base.

Body very robust; elytra very feebly impressed on the suture at the base; longitudinal elevation of head rounded.

42. **vespertinus**.

Body much more slender; elytra strongly impressed on the suture at the base; longitudinal elevation of head rather acute.

43. **convictor**.

Species less than 3.0 mm. in length.

Longitudinal elevation of head acute and prominent; canalienlation of pronotum short, deep, and conspicuous44. **confusus**.

Longitudinal elevation rather obscure, broadly rounded; canalienlation of pronotum very obscure, being simply a very feeble erosion, in some cases almost obsolete.

Prothorax widest distinctly before the middle.

Larger species. Legs black45. **inornatus**.

Smaller species. Legs fuscous46. **placidus**.

Prothorax widest at or behind the middle.

Sides of prothorax nearly straight in front of the broadest section, at which point they are rather acutely angulate. Massachusetts.

47. **mendax**.

Sides of prothorax strongly rounded anteriorly, not angulate, broadly rounded at the widest section48. **eriensis**.

Subgroup *b*.

Head large, much wider than the elytra at base.....49. **sphaerops**.

Head equal in width to the elytra at base50. **militaris**.

Head distinctly narrower than the elytra at base.

Head extremely small; interocular surface broad; eyes narrow. Massachusetts.....51. **pluto**.

Head slightly broader; interocular surface narrow; eyes wide and very convex. Arizona52. **incultus**.

Subgroup *c*.

Elytral suture much shorter than the pronotum53. **pterobrachys**.

Elytral suture distinctly longer than the pronotum.

Prothorax distinctly elongated; legs black throughout; form robust; elytra finely, deeply, evenly, and very closely punctate; surface rough and nearly opaque54. **corvus**.

Prothorax about as wide as long; legs not black; form more slender; elytra coarsely punctate; surface generally shining.

Large species, 4.2-4.5 mm. in length.....55. **maritimus**.
Small species, not exceeding 3.0 mm. in length.

Form slender; punctures of elytra almost entirely isolated. White Mountains, N. H.....56. **montanus**.

Form more robust; somewhat depressed; punctures of elytra generally close and coalescent. Colorado and British Columbia.

57. **alpicola**.

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54. **corvus.**

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montanus.

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umbria.

alpicola.

20. **S. strangulatus** n. sp. (Fauvel MS.).—Form very slender. Pubescence excessively short, fine, and sparse, setiform, cinereous. Head very large, not twice as wide as long; interocular surface three-fourths as wide again as the eye, rather deeply excavated, finely and feebly punctured, interspaces equal in width to the punctures, shining, minutely reticulated; longitudinal sulcations closely approximate and distinct; intermediate surface very moderately and evenly convex; ocular lines meeting at less than one length in advance; antennae very long and slender, much longer than width of head, dark piceous-brown throughout, club narrow; third joint three-fourths as long again as the fourth, and nearly as long as the fourth and fifth together, fourth and fifth equal, eighth one-half as long as the seventh, joints of club increasing in length, last joint nearly as long as the ninth and tenth together; maxillary palpi long and slender, pale testaceous throughout, last joint much elongated. Prothorax widest slightly before the middle, where it is three-fourths as wide as the head, and one-fifth narrower than long; sides from the middle rather strongly convergent posteriorly and strongly sinuate; anterior margin longer and more areolate than the posterior; surface evenly convex, coarsely and very irregularly punctate, interspaces at some spots equal in width to the punctures, somewhat shining and very minutely reticulated, at others acute; canaliculation almost obsolete, one-half as long as the pronotum, terminating at equal distances from the anterior and posterior margins. Elytra at base scarcely three-fourths as wide as the head; sides very feebly divergent posteriorly, slightly longer than width at base and rather strongly areolate; together broadly and just perceptibly emarginate posteriorly; suture much shorter than the pronotum; surface even, somewhat depressed; very coarsely, closely, and somewhat irregularly punctured. Abdominal segments just perceptibly decreasing in width posteriorly, first as wide as the contiguous elytra; border prominent; surface very convex, coarsely, feebly, and distantly punctulate, moderately shining; transverse carinae tricuspid, cusps acute and aciculate, middle twice as long as the lateral. Legs very long and slender, pale piceous-brown throughout; first joint of posterior tarsi somewhat longer than twice the second, as long as the next three together, second visibly longer than the third.

Male.—Posterior edge of the fifth ventral segment deeply and broadly emarginate in its middle third, notch four times as broad as deep, almost transverse at the bottom, contiguous surface deeply and conically impressed for one-half its length anteriorly, borders of the impression in the form of very acute ridges, which terminate posteriorly in two long, very acute teeth, projecting over and beyond the emargination; sixth segment sinuate at apex, sinus small, four times as wide as deep, and evenly rounded at the bottom.

Female.—Sixth ventral segment evenly rounded behind throughout its width.

Length 3.1–3.4 mm.

New York, 1; Detroit, Michigan, 5.

Very distinct and unmistakable in form.

21. **S. tennis** n. sp.—Form very slender, sides parallel. Pubescence moderately long, fine, recumbent, sparse, pale fulvo-cinereous, more fulvous on the abdomen. **Head** moderate, twice as wide as long; interocular surface nearly flat, equally trilobed by the very feeble sulcations; intermediate surface very feebly convex; punctures moderately coarse, evenly distributed, separated by one-half their own widths, interspaces shining; ocular lines meeting at one length in advance; maxillary palpi pale piecous-brown, basal joint opaque, flavate. **Prothorax** widest slightly in advance of the middle, where it is distinctly narrower than long; sides rather strongly convergent and just perceptibly sinuate posteriorly, rather less convergent and very feebly arcuate anteriorly; anterior margin slightly longer and much more arcuate than the posterior; surface feebly tuberculate near the basal angles; rather finely, moderately closely, evenly punctured; punctures irregular in shape, interspaces rather convex, highly polished; canaliculation just visible as a narrow, very feeble impression, about one-half as long as the pronotum, terminating at nearly equal distances from the base and apex. **Elytra** at base just perceptibly narrower than the head; sides moderately divergent posteriorly, longer than the width at base and feebly arcuate; together very broadly, roundly, though moderately emarginate behind; suture very slightly longer than the pronotum; surface rather depressed, feebly impressed along the suture, more particularly toward the base, coarsely and nearly evenly punctate, interspaces two-thirds as wide as the punctures, feebly convex and highly polished, punctures very seldom coalescent and then only partially so. **First three abdominal segments** equal in width, and as wide as the contiguous elytra: surface finely, evenly, and rather distantly punctulate; punctures impressed, interspaces highly polished; posterior edges of the segments impunctate; transverse carinae tricuspid, middle cusps long and acicular, lateral very rudimentary. **Legs** rufo-fascous, moderate in length; last joint of the anterior tarsi nearly equal in length to the three preceding together.

Male.—Fifth ventral segment emarginate in its middle fourth at apex, emargination evenly rounded, nearly ten times as wide as deep, contiguous surface feebly impressed throughout anteriorly; sixth segment triangularly incised at apex, incisure small, slightly wider than deep; seventh segment feebly and roundly emarginate at apex.

Female.—Unknown.

Length 3.2 mm.

Grimsby, Ontario, 1.

The type specimen is in a very dilapidated condition, lacking the antennae and posterior tarsi. The species differs from *difficilis* in its much more slender form, sexual characters, and sculpture.

22. **S. angustus** n. sp.—Form slender, sides parallel. Pubescence sparse, short, fine, sub-recumbent, rather inconspicuous. **Head** moderate, twice as wide as long; interocular surface more than twice as wide as the eye, nearly flat, equally trilobed by the very feebly longitudinal sulcations, intermediate surface rather feebly and evenly convex; punctures moderately small, rounded, not coalescent, evenly distributed and close; ocular lines

meeting at nearly two lengths in advance; antennae distinctly longer than the width of head, moderately robust, piceous-brown, basal joint black, club very slender; third joint one-fourth longer than the fourth, fourth and fifth equal, sixth and seventh joints much shorter than the fifth, equal in length, the latter slightly more robust, eighth two-thirds as long as the seventh, equal to it in width, joints of club increasing in length and thickness; maxillary palpi slender, first joint opaque, flavate, second and base of the third very slightly darker, piceo-flavate, remainder piceous-brown. **Prothorax** widest much before the middle, where it is distinctly narrower than long; sides thence nearly equally convergent anteriorly and posteriorly, distinctly arcuate in the former, nearly straight in the latter direction; anterior margin slightly longer than the posterior, equally arcuate; surface gradually, narrowly, and feebly swollen toward the basal angles, rather coarsely, very closely, evenly, and sub-variately punctured, punctures polygonally crowded; canaliculation very feeble, terminating at equal distances from the base and apex. **Elytra** at base much narrower than the head; sides moderately divergent posteriorly, very slightly longer than the width at base, very feebly arcuate; together broadly and feebly emarginate behind; suture just perceptibly shorter than the pronotum; surface rather depressed, very feebly and narrowly impressed on the suture, rather coarsely and closely punctate, punctures frequently coalescent near the middle of the elytra, interspaces polished, minutely reticulated. **Abdominal** segments decreasing sub-uniformly and extremely slowly in width, first three nearly of equal width, and as wide as the contiguous elytra; surface coarsely and rather closely punctulate, punctures impressed, interspaces polished; transverse carinae tricuspid, middle cusps long and finely acicular, lateral very rudimentary. **Legs** rather slender, rufo-fuscous, tips of femora darker; first joint of the posterior tarsi three-fourths longer than the second, second slightly longer than the third.

Male.—Fifth ventral segment scarcely modified; sixth broadly truncate at tip, truncation very feebly sinuate throughout nearly its whole length as in *Pittiti*; seventh segment rather deeply emarginate at tip.

Female.—Sixth segment very evenly rounded behind, somewhat narrow.

Length 2.8-3.0 mm.

Grimsby, Ontario, 1, ♀; Tyngsborough, Massachusetts, 1, ♂.

23. **S. difficilis** n. sp. (Schwarz MS.).—Form slender. Pubescence exceedingly fine and short, setiform; longer, recumbent, and more abundant at the tip of the abdomen, cinereous. **Head** rather large, twice as wide as long; interocular surface nearly flat, three times as wide as the eye, equally trilobed by the very shallow, longitudinal sulcations; intermediate surface feebly convex; finely, evenly, and somewhat closely punctured, interspaces one-half as wide as the punctures; ocular lines meeting at about two lengths in advance; antennae moderately slender, but very slightly longer than width of head, piceous-brown, basal joint nearly black, club moderate; third joint one-half as long again as the fourth, fourth distinctly shorter than the fifth, eighth short and sub-globular, joints of club increasing in length, last two equal in width, last acuminate at tip; maxillary palpi slender, first joint

pale testaceous, second and third darker, testaceous. **Prothorax** widest before the middle, where it is three-fourths as wide as the head, and one-sixth narrower than long; sides thence moderately convergent posteriorly and very slightly sinuate; anterior and posterior margins equal in length, the former more arcuate; surface with two very faint tuberculations on each side, equi-distant from each other and from the anterior and posterior margins; canaliculation rather obscure, commencing at the middle and extending almost to the posterior margin; slightly unevenly, coarsely, and variolately punctured, interspaces unequal in width, very slightly convex, polished. **Elytra** at base somewhat narrower than the head; sides notably divergent posteriorly, evenly and feebly arcuate, slightly longer than the width at base; together broadly and very feebly emarginate posteriorly; suture about equal in length to the pronotum; surface rather coarsely and unevenly punctured, punctures rather deeply impressed, closer and more coalescent externally, interspaces near the suture about one-half as wide as the punctures, shining, minutely reticulated. **First** three abdominal segments equal in width to the contiguous elytra; border strong; surface shining, rather coarsely punctulate anteriorly, more closely and finely so posteriorly; transverse carinae tricuspid, cusps all very rudimentary, intervals nearly straight. **Legs** rufo-piceous, moderate; first joint of posterior tarsi one-half as long again as the second, second notably longer than the third, third and fourth equal in length. Under surface of abdomen dark piceous, finely and closely punctulate.

Male.—Posterior edge of fifth ventral segment rather feebly emarginate in the middle, emargination indefinitely terminated laterally, contiguous surface very feebly and longitudinally impressed in its middle third, borders of impression furnished with long, recumbent, piceous setae; sixth segment broadly sinuate at apex, sinns evenly and somewhat acutely rounded at bottom, and about three times as wide as deep, surface of segment not impressed; seventh segment broadly and very feebly emarginate at apex, emargination almost transverse, terminating laterally in two strong, posteriorly projecting teeth.

Female.—Sixth segment broadly and very evenly rounded behind.
Length 3.0 mm.

Middle States, 1; Massachusetts, 1; Grimsby, Ontario, 3.

Very readily distinguished by the fourth joint of the antennae, which is, rather anomalously, shorter than the fifth.

24. S. Pettiti n. sp.—Form slender. Pubescence close, rather coarse, short, sub-recumbent, evenly distributed, cinereous, with a slight fulvous tinge on the abdomen. **Head** robust, not twice as wide as long; interocular surface very feebly depressed, twice as wide as the eye; longitudinal elevation narrower than the lateral portions, rather feebly and evenly convex, distinct; punctures fine, rounded, not coalescent, evenly distributed, and very close; ocular lines meeting at slightly more than one length in advance; antennae very slightly longer than the width of head, rather robust, piceous-brown, basal joint black, club very moderate; third joint one-third longer than the fourth, joints four, five, and six uniformly and rather rapidly de-

creasing in length, six and seven equal in length, the latter much more robust, eighth slightly shorter than the seventh, strongly clubbed, joints of club elongated, nearly of equal width, ninth and tenth equal in length, last slightly longer; maxillary palpi long, piceous-brown, basal joint flavate. **Prothorax** robust, arcuately widening to a point slightly in advance of the middle, where it is about as wide as long; sides moderately convergent posteriorly and nearly straight; anterior and posterior margins equal in length, the former slightly the more arcuate; surface feebly swollen near the basal angles, closely, finely, somewhat confusedly punctate; canaliculation nearly obsolete, more distinct just behind the middle, feebly impressed. **Elytra** at base as wide as the head; sides rather strongly divergent posteriorly, longer than the width at base, feebly arcuate, much more strongly so toward the apices; together broadly, somewhat angularly and distinctly emarginate behind; suture nearly one-sixth longer than the pronotum; surface strongly impressed on the suture toward the base: rather coarsely, very closely, and somewhat evenly punctate, interspaces acutely convex and very narrow. **Abdom.** 6 segments decreasing extremely slowly in width, first two of equal width, and as wide as the contiguous elytra; surface coarsely, sub-variolately, very closely and evenly punctulate; transverse carinae tricuspid, middle cusps long and very finely acuminate, lateral rather rudimentary. **Legs** moderate in length, rufo-fuscous, tips of femora darker; first joint of posterior tarsi four-fifths longer than the second, and longer than the last, second distinctly longer than the third, third and fourth sub-equal.

Male.—Posterior edge of fifth ventral segment just perceptibly and roundly emarginate in its middle fourth, contiguous surface very feebly flattened throughout; sixth segment truncate at apex, truncation very feebly, just visibly and very broadly sinuate.

Female.—Sixth segment very broadly and evenly rounded behind.
Length 3.0–3.2 mm.

Grimsby, Ontario, 1; Middle States (locality not given), 1.

This species, although resembling *difficilis* somewhat in form, is totally distinct in the character of the sexual modifications. It is dedicated with pleasure to Mr. J. Pettit, of Grimsby, Ontario.

The parasite is small, very convex, highly polished, twice as long as wide, regularly oval, and slightly longer than the first joint of the posterior tarsi; it is cinereous in color; the long bristles are few in number, and aggregated at the end nearest a very distinct transverse suture.

25. **S. scrupeus** n. sp.—Form moderately slender. Pubescence short, sub-recumbent, rather sparse, bright fulvous on the abdomen, plumbeous on the remainder of the dorsal surface. **Head** large and robust, twice as wide as long; interocular surface slightly depressed, twice as wide as the eye; longitudinal elevation much narrower than the lateral portions, strongly and somewhat acutely convex, prominent, sulcations acute and prominent; punctures small, rounded, very closely crowded toward the eyes, where they

are extremely coalescent; ocular lines meeting at one length in advance, almost uniformly enrvate; antennae very slightly longer than the width of head, slender, club distinct, basal joint black, remainder rather pale piceous-brown; third joint one-half longer than the fourth, fourth and fifth subequal, sixth and seventh equal in length, the latter slightly more robust, eighth nearly twice as long as wide, joints of club of nearly equal length, last two almost equal; maxillary palpi long and very slender, pale piceous-brown, becoming pale piceo-testaceous toward the base. **Prothorax** arenately and gradually increasing in width to the middle, where it is scarcely three-fourths as wide as the head, as wide as the elytra at base, and nearly one-fifth narrower than long; sides thence moderately convergent posteriorly and very strongly sinuate; anterior and posterior margins equal in length, the former rather strongly arcuate, the latter nearly straight; surface strongly and longitudinally tuberculate near the basal angles, and very feebly so near the apical angles; central portions of the pronotum nearly flat; punctures rather fine, variform, extremely closely crowded near the base and apex where they are confused and coalescent, occasionally isolated near the middle; interspaces generally acute and polished; canaliculation beginning slightly before the middle, one-third as long as the pronotum, narrow, well-marked. **Elytra** at base much narrower than the head; sides strongly divergent posteriorly, very slightly longer than the width at base, rather feebly and evenly arenate; together very broadly, rounded, and strongly emarginate behind; suture distinctly shorter than the pronotum; surface depressed, nearly flat, very feebly impressed on the suture near the base, deeply, rather coarsely, extremely closely punctate; punctures very much confused, interspaces acute. **Abdominal** segments uniformly and very gradually decreasing in width, first just perceptibly narrower than the contiguous elytra; surface rather coarsely punctulate, punctures very close near the borders, finer and more distant along the middle and also behind; transverse carinae tricuspid, middle cusps long and aciculate, lateral very short and somewhat rudimentary. **Legs** long and slender, pale piceo-fuscous above, paler piceous-brown beneath; first joint of the posterior tarsi rather more than twice as long as the second, and nearly one-half longer than the last, second joint slightly longer than the third, fourth much shorter.

Male.—Fourth ventral segment very feebly impressed throughout its middle third, edge entire; fifth emarginate in its middle third at apex, emargination evenly rounded, six times as wide as deep, contiguous surface rather strongly and cylindrically impressed throughout anteriorly; sixth segment triangularly incised at the apex, incisure one-third as wide as the apex, very slightly wider than deep, edges of notch rapidly thinned, so that it is bordered by a narrow, concave surface; seventh segment transversely truncate at tip.

Female.—Sixth segment angularly produced and rounded behind.

Length 3.2–3.7 mm.

Grimsby, Ontario, 8; Marquette, Lake Superior, 1.

A very distinct species in form, sculpture, and sexual modifications.

26. **S. intrusus** n. sp.—Form moderately robust. Pubescence very short, setiform, sparse, very fine and cinereous, becoming flavo-cinereous toward

the tip of the abdomen. **Head** large, twice as wide as long; interocular surface very moderately excavated, twice as wide as the eye, somewhat coarsely, closely, and evenly punctured; punctures impressed, interspaces polished; equally trilobed by the distinct longitudinal sulcations, between which the surface is evenly convex; ocular lines meeting at one length in advance; antennae very slender, longer than the width of head, first two joints black, remainder piceous-brown, club slender; third joint one-third as long again as the fourth, fourth and fifth equal in length, sixth and seventh equal, joints of club increasing in length; maxillary palpi very slender, first joint pale testaceous, next two darker testaceous. **Prothorax** robust, widest at the middle, where it is three-fourths as wide as the head, and about as wide as long; sides thence moderately convergent posteriorly, and distinctly sinuate; anterior and posterior margins equal in length, the former slightly the more arcuate; surface transversely impressed just behind the anterior margin, and slightly tuberculate at the sides near the base; somewhat finely punctured, punctures rounded, impressed, and seldom coalescing, interspaces one-half their width, highly polished; canaliculation in the form of a slight longitudinal impression, extending along the middle three-fifths, and scarcely noticeable. **Elytra** at base as wide as the head; sides very moderately divergent posteriorly, but slightly longer than the width at base and almost straight; together broadly and somewhat feebly emarginate posteriorly; suture one-sixth as long again as the pronotum; surface nearly evenly convex, punctures rather coarse, deeply impressed, rounded, and but seldom coalescing, interspaces one-half their width and highly polished. **Abdominal** segments decreasing regularly and moderately in width posteriorly, first as wide as the contiguous elytra; surface rather depressed, highly polished, sparsely, very finely punctulate; transverse carinae tricuspid, middle cusps long and acicular, lateral short, expanding at apex, and inclined inward, intervals very moderately sinuate. **Legs** slender, dark piceous; tarsi paler, slender; first joint of posterior twice as long as the second, next three uniformly decreasing in length. Under surface of abdomen clothed with long, recumbent, fusco-flavate pubescence which is very fine.

Male.—Posterior edge of the fifth ventral segment strongly emarginate in its middle half, emargination evenly rounding, six times as wide as deep, surface deeply impressed, sides of impression slightly convergent anteriorly, and in the form of acute ridges which terminate posteriorly in acute teeth, projecting over and beyond the emargination, floor of impression flat and almost impunctate; sixth segment very narrowly, deeply, and triangularly incised at apex, notch much deeper than wide, angle very acute, sides straight; seventh segment deeply emarginate at apex.

Female.—Sixth segment feebly bilobed at apex, cusp acute, arms widely divergent.

Length 3.7–4.0 mm.

Cambridge, Massachusetts, 28; White Fish Point, Michigan, 1; Escanaba, Michigan, 1; Canada, 1.

A fine, well-marked species, with excellent sexual characters. The

modification of the sixth segment in the female is not noticeable in some specimens.

27. **S. erythropus** Mels.—Form moderately robust. Pubescence exceedingly short and sparse, fine, setiform, and cinereous. **Head** robust, not twice as wide as long; interocular surface twice as wide as the eye, distinctly excavated, rather coarsely, closely, and evenly punctate, interspaces one-fourth as wide as the punctures, shining; equally trilobed by the sharply marked, longitudinal sulcations, intermediate surface evenly convex; ocular lines meeting at one length in advance; antennae long and very slender, longer than width of head, dark piceous-brown, basal joint black, club narrow; third joint one-third as long again as the fourth, fourth and fifth equal, eighth longer than the ninth, joints of club slender, equal in length, ninth and tenth clavate, last conical; maxillary palpi long and slender, pale fuscotestaceous throughout. **Prothorax** very robust, widest at the middle, where it is three-fourths as wide as the head, and slightly narrower than long; sides thence very feebly convergent posteriorly, and distinctly sinuate; anterior and posterior margins equal in length, the former much the more arcuate; surface rather unevenly convex, very closely, somewhat coarsely and unevenly punctate; canaliculation somewhat obscure, narrow, but distinct, commencing at the middle and extending to within one-fourth the total length of the posterior margin. **Elytra** at base much narrower than the head, sides moderately divergent posteriorly and feebly arcuate; together broadly and very feebly emarginate posteriorly; suture slightly longer than the pronotum; surface depressed, coarsely, deeply, and very unevenly sculptured, on a small area near the inner basal angles, the punctures are rounded and isolated, with the interspaces much wider than the punctures, the remainder of the surface is very closely and deviously channeled, the channels being generally short. **Abdominal** segments decreasing very gradually in width, first narrower than the contiguous elytra; surface convex, coarsely and closely punctulate anteriorly, finely so posteriorly; transverse carinae trienspid, middle cusps slender and aciculate, lateral rudimentary and expanding at apex, intervals rather strongly sinuate. **Legs** long and slender, pale piceous-brown; first joint of posterior tarsi more than twice as long as the second, longer than the next three together, second distinctly longer than the third.

Male.—Posterior edge of fifth ventral segment strongly emarginate in its middle three-fifths, contiguous surface deeply impressed, floor of impression flat, somewhat uneven, impunctate; sides nearly parallel, in the form of acute, elevated ridges, which terminate posteriorly in two strong acute teeth projecting over and beyond the emargination; sixth segment narrowly emarginate at the apex, notch much deeper than wide, rounded anteriorly, sides nearly straight, surface unevenly and feebly impressed, and impunctate; at the anterior portion of the impunctate area, there is an elongated, narrow, and very acute cariniform elevation, rising abruptly from the surface; seventh segment narrow, evenly emarginate at apex.

Female.—Sixth segment acutely rounded posteriorly and distinctly bilobed at the apex, cusp minute and rounded, arms widely divergent.

Length 4.0–4.8 mm.

Cambridge, Massachusetts, 7; White Fish Point, Michigan, 1.

This very fine species is, with a few exceptions, the most distinct in its sexual characters of any in the genus.

28. **S. rugifer** n. sp. (Fauvel MS.).—Form robust. Pubescence excessively short, sub-erect, rather coarse, sparse, very pale flavo-cinereous. **Head** small, robust, scarcely twice as wide as long; interocular surface nearly flat, slightly more than twice as wide as the eye, nearly equally trilobed by the deep, acutely rounded sulcations; intermediate surface strongly and evenly convex; punctures moderately coarse, deep, so closely crowded as to present simply an extremely rough surface, totally lustreless; ocular lines meeting at one length in advance; antennae very slightly longer than the width of head, robust, piceous-black, club distinct; third joint one-half as long again as the fourth, fourth and fifth equal, sixth slightly longer and much less robust than the seventh, eighth globular, as thick as the seventh, joints ten and eleven nearly equal in length, distinctly longer than the ninth; maxillary palpi very long, piceous-black, clouded slightly darker toward the tip. **Prothorax** arcuately and evenly increasing in width to a point slightly behind the middle, where it is very slightly narrower than the head, and nearly one-sixth narrower than long; sides thence moderately convergent posteriorly and strongly sinuate; anterior margin rather strongly arcuate, posterior straight; surface longitudinally tuberculate along the flanks of the pronotum, particularly near the basal angles, transversely impressed immediately behind the anterior margin, longitudinally canaliculated through the middle two-thirds, border of furrow slightly swollen, entire surface rather finely, deeply, and excessively closely sculptured, rough, and lustreless. **Elytra** at base much wider than the head; sides nearly parallel, slightly longer than the width at base and very feebly arcuate, more so behind; together broadly, roundly, and distinctly emarginate behind; suture slightly more than one-fourth as long again as the pronotum; surface of each elytron slightly swollen near the middle of the base, finely, excessively closely, and irregularly punctured and channeled, lustreless. **Abdominal** segments decreasing uniformly and very gradually in width, first just perceptibly narrower than the contiguous elytra; surface nearly lustreless; punctures extremely close, very coarse, polygonally compressed, slightly finer and more isolated toward the tip; transverse carinae tricuspid, middle cusps long and acicular, lateral equal in length, broad, widening at tip, where they are amalgamated with the general surface. **Legs** slender, piceous-black; first joint of the posterior tarsi three-fourths as long again as the second, and equal in length to the last, second much longer than the third, third and fourth sub-equal.

Male.—Fourth ventral segment feebly flattened in the middle at apex; fifth segment emarginate in its middle third at apex, emargination evenly rounded, twelve times as wide as deep, contiguous surface impressed through one-half its length anteriorly, sides of impressed area acutely ridged, coarsely setose, and terminating posteriorly in well-marked acute teeth, bottom of impression nearly flat and impunctate toward the emargination; sixth segment triangu-

larly incised at apex, triangle equilateral, slightly more than one-third as wide as the segment.

Female.—Sixth segment narrowly produced and bilobed at the apex, cusp small, distinct, very feebly rounded, arms narrowly divergent and rather acutely rounded.

Length ♂ 3.5, ♀ 4.2 mm.

Alamosa, Colorado, 2.

Easily recognized by its very rough, lustreless surface, and very distinct sexual characters.

29. *S. anastomozans* n. sp. (Crotch MS.).—Form very moderately robust. Pubescence short, rather close, coarse, semi-erect, cinereous. **Head** rather small, more than twice as wide as long; interocular surface nearly flat, two and one-half times as wide as the eye; longitudinal elevation slightly narrower than the lateral portions, strongly and evenly convex; sulcations somewhat deep and prominent; punctures coarse, rounded, moderately close, evenly distributed, and deeply impressed, interspaces one-half as wide as the punctures, feebly convex, and shining; ocular lines meeting at one length in advance; antennae as long as the width of head, rather slender, club large, basal joint black, remainder dark pieceous-brown; third joint one-half as long again as the fourth, fourth slightly longer than the fifth, sixth slightly longer and much less robust than the seventh, eighth very robust, as wide as or slightly wider than the seventh, tenth joint slightly the widest; maxillary palpi long and slender, dark pieceous-brown, becoming pale piece-testaceous at the base, fourth joint very distinct. **Prothorax** almost uniformly and gradually increasing in width to the middle, where it is four-fifths as wide as the head, and distinctly narrower than long; sides thence moderately convergent posteriorly and very feebly sinuate; anterior and posterior margins equal in length, the former distinctly the more arcuate; surface finely tuberculate along the sides near the canalication, and more particularly near the basal angles; rather finely, deeply, extremely closely, and somewhat confusedly punctured, interspaces acute; canalication short, moderately deep, and narrow, commencing just before the middle, one-fourth as long as the pronotum. **Elytra** at base as wide as or just perceptibly wider than the head: sides very feebly divergent posteriorly, slightly longer than the width at base, rather strongly and evenly arcuate; together narrowly and very strongly emarginate behind; suture nearly one-third as long again as the pronotum; surface very feebly and broadly impressed on the suture at and near the base, somewhat coarsely, very deeply, extremely closely punctate and channeled, interspaces acute. **Abdominal** segments decreasing uniformly and rapidly in width, first distinctly narrower than the contiguous elytra; surface rather strongly convex, extremely coarsely and closely, sub-variolately punctulate; punctures rounded and not coalescent, much finer and more distant behind; transverse carinae tricuspid, cusps very long, stout, aciculate at tips, prominent, lateral slightly shorter than the middle ones. **Legs** rather long and slender, femora black, tibiae and tarsi pieceous-black beneath; first joint of posterior tarsi three-fourths as

long again as the second, and very slightly shorter than the last, second distinctly longer than the third, third and fourth sub-equal in length.

Male.—Fourth ventral segment having a small, triangular, impunctate spot at the middle of the apex; fifth segment emarginate in its middle three-fifths at apex, emargination evenly rounded, and eight to ten times as wide as deep, contiguous surface impressed nearly throughout anteriorly, sides of impression slightly convergent, acutely ridged, and furnished with very long, coarse setae, bottom of impressed surface impunctate; sixth segment triangularly incised at apex, incision one-third as wide as the segmental apex, as wide as deep; seventh segment deeply and roundly emarginate at tip, teeth distinct, lateral setae very long.

Female.—Sixth segment bilobed at apex, cusp minute and very broadly rounded.

Length 3.7–3.8 mm.

Hermit Lake, Mount Washington, N. H., 1 ♂; Mount Washington, N. H. (valleys), 1 ♀.

This fine species greatly resembles *rugifer*, but differs in its more slender form, and especially in its much more slender abdomen. It also differs markedly in the nature of the punctuation of the head and abdomen. In the type specimen the fourth joint of the maxillary palpi is plainly visible, appearing as a stiff and regularly tapering spine, protruding from the apex of the third joint. The small impunctate triangle of the fourth ventral segment may possibly be abnormal.

30. *S. shoshonis* n. sp.—Form moderately robust, sides parallel. Pubescence moderate in length, rather sparse, semi-erect, fine, setiform, pale fulvo-piceous. **Head** moderate, very robust, not twice as wide as long; interocular surface slightly more than twice as wide as the eye, flat, equally trilobed by the very deep, rounded sulcations; intermediate surface evenly, broadly, and strongly convex; punctures fine, rounded, very close, and often coalescent, interspaces nearly opaque; ocular lines meeting at less than one length in advance; antennae as long as the width of head, slender, dark piceous-brown, club distinct; third joint one-third as long again as the fourth, fourth and fifth equal, sixth very slightly longer than the seventh, eighth twice as long as wide, seventh and eighth just perceptibly more robust than the sixth, joints of club increasing gradually in length and breadth; labial palpi very robust, piceous-black, basal joint pale piceo-testaceous; mentum bearing several very long setae. **Prothorax** very robust, widest slightly in advance of the middle, where it is just perceptibly narrower than the head, very slightly broader than long, and as wide as the elytra at base; sides thence rather rapidly convergent posteriorly and very feebly sinuate; anterior margin slightly longer and more arcuate than the posterior; surface feebly impressed along the flanks of the pronotum, and transversely and rather strongly impressed just behind the anterior margin; very closely, finely, and deeply punctured; canaliculation rather deeply ex-

cavated, extending with nearly equal width to within very short distances of the base and apex, bottom impunctate. **Elytra** at base very slightly narrower than the head; sides very strongly divergent posteriorly, very slightly longer than the width at base, rather strongly and evenly arcuate; together very broadly, evenly, and strongly emarginate behind; suture slightly shorter than the pronotum; surface depressed, even; very deeply, rather finely, very closely and unevenly punctate and channeled, interspaces very narrow, convex, and shining. **First** two abdominal segments equal in width, slightly wider than the contiguous elytra; surface broadly and rather feebly convex; coarsely, closely, and rather feebly punctulate; transverse carinae trispinid, middle cusps very strong, finely acuminate at tip, lateral large, diffused, and exceedingly indefinite. **Legs** moderate, piceous-black above, dark rufo-piceous beneath; first joint of posterior tarsi one-half as long again as the second.

Male.—Unknown.

Female.—Sixth ventral segment angularly produced at apex, vertex very feebly rounded.

Length 3.6 mm.

Thurston County, Washington Territory, 1.

The robust prothorax and short elytra will readily distinguish this very well-marked species. The maxillary palpi are lacking in the type specimen.

31. ***S. insularis*** n. sp.—Form slender. Pubescence rather long, fine, and somewhat sparse, recumbent, rather pale fusco-cinereous. **Head** large, more than twice as wide as long; interocular surface nearly twice as wide as the eye, rather strongly depressed; longitudinal elevation narrower than the lateral portions, evenly and very strongly convex, very prominent; punctures fine, close, and even at the sides, very minute and sparse in the middle; ocular lines meeting at one length in advance; antennae slightly longer than the width of head, slender, piceous-brown, growing slightly paler toward tip, club rather small; third joint one-fourth as long again as the fourth, fourth slightly longer than the fifth, seventh slightly shorter and more robust than the sixth, eighth equal, joints of club increasing very gradually in length and thickness; **maxillary palpi** long, first joint pale testaceous, second darker, rufo-testaceous; **mandibles** very long, dark piceous-brown. **Prothorax** widest distinctly in the middle, where it is three-fourths as wide as the head and just behind the middle; sides thence very slightly convergent posteriorly; surface rather strongly sinuate; anterior margin slightly shorter and much more arcuate than the posterior; surface rather strongly tuberculate at the sides near the base, finely and irregularly punctate; punctures very feeble, isolated in the middle, crowded toward the margins, interspaces flat and highly polished; canalliculation short, oval, deeply impressed, beginning slightly before the middle, scarcely more than one-fourth as long as the pronotum. **Elytra** at base slightly narrower than the head; sides moderately or somewhat strongly divergent posteriorly, very slightly longer than the width at base, feebly arcuate; together just perceptibly

tibly and roundly emarginate behind; suture about equal in length to the pronotum; surface rather depressed, each having a slight elevation at the middle of its base; coarsely, sub-variolately, closely, and very irregularly punctured and channeled. **Abdominal** segments decreasing uniformly and very gradually in width, first about as wide as the contiguous elytra; surface moderately convex, finely and feebly punctulate; transverse carinae unicuspid, cusp long and aciculate. **Legs** rather long and slender, fuscous, under sides of femora rufous; first joint of posterior tarsi very short, one-half as long again as the second, one-half as long as the last; joints two to four uniformly and gradually decreasing in length, together not as long as the fifth. Body winged.

Male.—Fourth ventral segment slightly flattened in its middle three-fifths, more strongly so behind, edge scarcely modified; fifth segment deeply emarginate in its middle three-fifths at apex, emargination very evenly rounded, from six to seven times as wide as deep, contiguous surface rather strongly and cylindrically impressed throughout anteriorly, the borders of all the impressed and flattened surfaces being bordered with long, recumbent, piceous setae; sixth segment narrowly sinuate at apex, sinus one-half as wide as the apices, nearly as deep as wide, acutely rounded at the bottom, sides nearly straight, exterior angles rather acute.

Female.—Sixth segment broadly and very evenly rounded behind.

Length 4.0–4.2 mm.

Vancouver Island, British Columbia, 5.

Resembles at first sight a diminutive *maritimus*, but is quite distinct, as may be inferred from the descriptions.

32. *S. vexatus* n. sp.—Form moderately slender. Pubescence moderately long, semi-erect, somewhat close, pale piceous anteriorly, flavate on the abdomen. **Head** rather large, twice as wide as long; interocular surface slightly more than twice as wide as the eye, moderately depressed, finely and somewhat irregularly punctured, interspaces in some spots as wide as or wider than the punctures, flat, and shining; equally trilobed by the very deep and conspicuous sulcations; intermediate surface strongly and evenly convex; ocular lines meeting at two lengths in advance; antennae piceous-black, very slightly longer than the width of head, slender, club not conspicuous; third joint scarcely one-fifth as long again as the fourth, joints four to six uniformly decreasing in length, sixth and seventh equal in length, the latter thicker, eighth elongated, as wide as the seventh, joints of club increasing in length, the last two equal in thickness and stouter than the ninth; first joint of maxillary palpi and base of the second translucent, pale testaceous, remainder piceous-black. **Prothorax** widest a little before the middle, where it is four-fifths as wide as the head, and about as wide as long; sides thence moderately convergent posteriorly and slightly sinuate; anterior margin slightly shorter and much more arcuate than the posterior; surface distinctly bi-tuberculate at the sides, very irregularly and rather finely punctate; punctures in the middle very small and distant, crowded and larger at the ends; canalliculation very conspicuous, short, narrowly

oval, very deeply impressed, beginning slightly before the middle, two-fifths as long as the pronotum. **Elytra** at base distinctly narrower than the head; sides rather strongly divergent posteriorly and very feebly arcuate, slightly longer than the width at base; together broadly and feebly emarginate behind; suture equal in length to the pronotum; surface depressed, coarsely, deeply, and very irregularly punctured and channeled. **Abdominal** segments decreasing uniformly and extremely gradually in width, first slightly wider than the contiguous elytra; surface rather depressed, very finely, closely, and evenly punctulate; transverse carinae tricuspid, middle cusps very long, becoming aciculate toward the tips, lateral very short and rudimentary, intervals distinctly sinuate. **Legs** short, dark rufo-piceous, tarsi black; first joint of posterior tarsi twice as long as the second, and as long as or longer than the last, second slightly longer than the third, fifth joint widest. Under surface of abdomen clothed with long, recumbent, cinereous pubescence.

Male.—Unknown.

Female.—Sixth ventral segment very evenly rounded behind.

Length 3.1 mm.

Thurston County, Washington Territory, 1.

Upon the above type of this very well-marked species may be seen nine large parasites, each nearly as long as the first three antennal joints, very convex, polished, and with oval outline; they are of a pale ferruginous tint, and appear to be comparatively highly organized.

33. **S. Schwarzii** n. sp. (Fauvel MS.).—Form rather slender. Pubescence short, fine, sparse, semi-erect, flavo-cinereous, not conspicuous. **Head** moderate, robust, scarcely twice as wide as long; eyes large, very convex; interocular surface very moderately excavated, scarcely twice as wide as the eye, finely, sub-variately, and irregularly punctate; punctures rather distant behind, coalescent anteriorly; longitudinal elevation scarcely more than one-half as wide as the lateral portions, rather acutely and strongly convex; ocular lines meeting at one length in advance; antennae long, slender, much longer than the width of head, basal joint black, remainder dark piceous-brown, club moderate; third joint one-fourth as long again as the fourth, fourth and fifth nearly equal, sixth and seventh sub-equal in length, the latter very slightly thicker, eighth elongated, oval, not as long as the ninth, joints of club of nearly equal length; maxillary palpi pale piceous-brown, growing paler toward the base, third joint nearly as long as the first and second together. **Prothorax** widest just before the middle, where it is three-fourths as wide as the head, and nearly as wide as long; sides thence very moderately convergent posteriorly and nearly straight; anterior margin very slightly longer and more arcuate than the posterior; surface rather strongly tuberculate on the sides at the base, feebly and transversely impressed just behind the anterior margin, finely and irregularly punctate; punctures widely separated near the middle, crowded toward the margins, interspaces feebly convex, minutely reticulated; canaliculation strong, deeply impressed, oval, beginning distinctly before the middle, nearly one-half as long as the

pronotum. **Elytra** at base very slightly narrower than the head; sides rather feebly divergent posteriorly, just perceptibly longer than the width at base, feebly arcuate; together broadly and somewhat feebly emarginate behind; suture as long as the pronotum, surface somewhat uneven, rather finely and very irregularly punctured; punctures isolated toward the suture and the base, coalescent elsewhere, especially near the inner apical angles, toward which the channels are generally more or less convergent. **Abdominal** segments decreasing uniformly and very gradually in width, first somewhat narrower than the contiguous elytra; surface finely punctulate; transverse carinae tricuspid, cusps distant, middle ones long and finely aciculate, lateral shorter, aciculate, inclined inward. **Legs** moderate, fuscous, except the under sides of the femora, which are rufous; tarsi slender; first joint of posterior twice as long as the second and slightly longer than the fifth, second and third nearly equal.

Male.—Under surface of third ventral segment slightly flattened in its middle third, edge scarcely modified; fourth segment just perceptibly emarginate in its middle three-fifths at apex, emargination evenly rounded, contiguous surface feebly and conically impressed throughout anteriorly; fifth deeply emarginate in its middle third at apex, emargination very evenly rounded, six times as wide as deep, contiguous surface strongly and conically impressed throughout anteriorly, sides of impression distinct and feebly convergent; sixth segment strongly, narrowly, and deeply sinuate at apex, almost triangularly incised, incisure acutely rounded at the bottom, sides nearly straight, deeper than wide; seventh segment broadly and feebly emarginate at apex, emargination transverse at bottom, teeth short and setigerous.

Female.—Sixth segment evenly rounded behind throughout.

Length 2.8–3.0 mm.

Cambridge, Massachusetts, 8.

The convergence of the punctular channels toward the inner apical angles of the elytra is also mentioned as a peculiarity of *militaris* of the Lake Superior region.

34. **S. pauper** n. sp.—Form slender. Pubescence very fine, short, sparse, sub-recumbent, pale flavo-cinereous. **Head** rather large and robust, twice as wide as long; interocular surface slightly depressed, more than twice as wide as the eye, equally trilobed by the very prominent sulcations; intermediate surface evenly and strongly convex, punctures round, rather small, evenly distributed, distant by more than their own widths, interspaces flat, highly polished; ocular lines meeting at less than one length in advance, lines of juncture strongly curved near the front; antennae slender, much longer than the width of head, first joint black, remainder piceous-brown, club moderate; third joint two-fifths as long again as the fourth, fourth and fifth equal, sixth distinctly longer and more slender than the seventh, eighth sub-globular, joints of club increasing in length; maxillary palpi moderate, first joint pale testaceous, remainder dark piceo-testaceous. **Prothorax** widest just before the middle, where it is four-fifths as wide as

the head, and very slightly narrower than long; sides thence moderately convergent anteriorly and posteriorly, and nearly straight; anterior and posterior margins sub-equal in length and curvature; surface very faintly tuberculate on the sides at the base, finely and distantly punctured, punctures somewhat irregular in outline, and slightly narrower than the interspaces in the middle, the latter flat and minutely reticulated; canalienation broadly oval and deeply impressed, conspicuous, beginning slightly before the middle, one-half as long as the pronotum. **Elytra** at base distinctly narrower than the head; sides rather strongly divergent posteriorly, very slightly longer than the width at base, almost straight; together broadly, roundly, and distinctly emarginate behind; suture about equal in length to the pronotum; surface depressed, very feebly impressed along the suture toward the base, rather coarsely, closely, and evenly punctate; punctures feebly impressed, more than twice as wide as the interspaces, which are flattened and somewhat wider near the inner basal angles. **Abdominal** segments decreasing gradually in width, and with extreme slowness, first somewhat wider than the contiguous elytra; surface broadly convex, very irregularly punctulate, punctures very coarse at the bases, much finer and more sparse at the apices; transverse carinae trispinid, middle cusps long, aciculate, and prominent, lateral very short, rounded at tip, broad, and rudimentary. **Legs** short and slender, fuscous above, femora rufous beneath; first joint of the posterior tarsi one-third as long again as the second, and somewhat shorter than the last, joints two to four uniformly and rather rapidly decreasing in length.

Male.—Unknown.

Female.—Sixth ventral segment evenly rounded behind, broad.

Length 2.1 mm.

Cambridge, Massachusetts, 1.

The prothorax somewhat resembles that of *mendax* in the nature of the sides.

35. **S. subtilis** n. sp.—Form slender. Pubescence rather short and sparse, fine, sub-recumbent, setiform, cinereous. **Head** rather large, twice as wide as long; interocular surface flat, twice as wide as the eye, equally trilobed by the faint sulcations; intermediate surface feebly and evenly convex; punctuation fine, even, and rather sparse; ocular lines meeting at one length in advance; antennae scarcely longer than the width of head, rather robust, club moderate, basal joint black, remainder dark piceous-brown, growing slightly paler toward tip; third, fourth, and fifth joints uniformly decreasing in length, sixth longer and much narrower than the seventh, eighth wider than the seventh, globular, joints of club increasing slightly in length; maxillary palpi moderate, first and second joints dark testaceous, first slightly the paler, third joint piceous-black, and densely setigerous. **Prothorax** widest slightly in advance of the middle, where it is three-fourths as wide as the head and distinctly narrower than long; sides thence moderately convergent posteriorly and feebly sinuate; anterior margin very slightly shorter and much more arcuate than the posterior; surface nearly evenly convex, rather coarsely, moderately closely, and very evenly punctate, inter-

spaces one-half as wide as the punctures; canaliculation distinct, impressed, bottom highly polished, sides somewhat indefinitely outlined, beginning slightly before the middle, one-half as long as the pronotum. **Elytra** at base just perceptibly narrower than the head; sides very feebly divergent posteriorly, distinctly longer than the width at base, very feebly arcuate; together somewhat angularly and distinctly emarginate behind; suture about as long as the pronotum; surface convex, nearly even, finely, moderately closely, and very evenly punctate; punctures of different sizes and shapes, interspaces generally as wide as the punctures, feebly convex, and very highly polished. **Abdominal segments** decreasing uniformly and just perceptibly in width, first as wide as the contiguous elytra; surface rather finely, sparsely, and very evenly punctulate, highly polished and rather convex; transverse carinae tricuspid, middle cusps moderate in length and finely aciculate, lateral broad, rounded at tips, and rather rudimentary. **Legs** somewhat long and slender, blackish-fuscous above, reddish-fuscous beneath, tibiae distinctly curvate, especially toward tips; first joint of posterior tarsi one-half as long again as the second, and nearly as long as the last, joints two to four uniformly decreasing in length.

Male.—Posterior edge of fifth ventral segment emarginate in its middle fourth, emargination evenly rounded, about ten times as wide as deep, with the angles slightly rounded, contiguous surface feebly flattened throughout anteriorly; sixth segment sinuate at apex, sinus and vertices equal in curvature, sinus about two and one-half times as wide as deep.

Female.—Unknown.

Length 2.3 mm.

Detroit, Michigan, 1.

36. **S. indigenus** n. sp.—Form rather slender. Pubescence short, moderately sparse, semi-erect, flavo-cinereous. **Head** robust, not twice as wide as long; interocular surface very slightly depressed, twice as wide as the eye, closely and evenly punctate, a small spot on each side near the base impunctate; longitudinal elevation very much narrower than the lateral portions, very acutely convex, prominent, summit narrowly impunctate; ocular lines meeting at one length in advance; antennae dark piceous-brown; third joint one-third as long again as the fourth, maxillary palpi long, first joint pale testaceous, second darker, third robust, piceous, densely setigerous, and nearly as long as the first two together. **Prothorax** widest slightly behind the middle, where it is nearly four-fifths as wide as the head and distinctly narrower than long; sides thence rather strongly convergent posteriorly and nearly straight; anterior and posterior margins sub-equal in length, the former the more arcuate; surface distinctly and obliquely tuberculate on each side near the base, closely, rather finely, and somewhat confusedly punctate; canaliculation in the form of an elongated erosion, very indistinct. **Elytra** at base distinctly narrower than the head; sides rather strongly divergent posteriorly, equal in length to width of base, and very feebly arcuate; together broadly, roundly, and somewhat strongly emarginate behind; suture scarcely more than seven-eighths as long as the pronotum; surface depressed, very feebly impressed on and near the suture at base

rather finely and very irregularly punctured; near the inner basal angles the punctures are widely isolated, the interspaces flat and highly polished, elsewhere, and especially toward the inner apical angles, they are closely compressed, often coalescent and somewhat larger. **Abdominal** segments decreasing extremely gradually in width, first two as wide as the contiguous elytra; surface feebly and evenly convex, coarsely, closely, and evenly punctulate, the punctures becoming much finer and feebler toward the tip; transverse carinae trispinose, cusps distant, middle ones short and finely aciculate, lateral nearly as long, but very wide, rounded at tips. **Legs** fuscous, rather long and slender; first joint of posterior tarsi two-thirds as long again as the second, and as long as the last, joints two to four uniformly and rather rapidly decreasing in length.

Male.—Posterior edge of fifth ventral segment just perceptibly emarginate in its middle third, emargination evenly rounded, and excessively feeble, contiguous surface feebly flattened throughout anteriorly; sixth segment broadly sinuate at apex, sinus feeble, evenly rounded, five to six times as wide as deep; seventh segment transversely and feebly emarginate at apex, teeth very short.

Female.—Unknown.

Length 2.5 mm.

Waverly, Massachusetts, 1; Cambridge, Massachusetts, 1.

The antennae are missing. This species, although resembling *placidus* very closely, is, I think, distinct, because of the differences to be observed in the structure of the palpi and elytra.

37. **S. simplex** n. sp. (Crotch MS.).—Form moderately robust. Pubescence exceedingly short, sparse, and fine, setiform, cinereous. **Head** rather large, scarcely twice as wide as long; interocular surface nearly flat, slightly more than twice as wide as the eye, equally trilobed by the sulcations which are scarcely visible; closely, rather coarsely and evenly punctate; ocular lines meeting at one and one-half lengths in advance; antennae moderately slender, as long as the width of head, basal joint black, remainder piceous-brown, club large and prominent; third joint one-third as long again as the fourth, fourth and fifth equal, sixth and seventh equal and shorter, seventh thicker than the sixth, eighth short and thicker than the seventh, joints of club increasing in length, last joint elongated, acuminate at tip; first joint of maxillary palpi and base of the second flavo-testaceous, remainder pale piceous-brown. **Prothorax** widest before the middle, where it is four-fifths as wide as the head, and slightly narrower than long; sides thence rather feebly convergent posteriorly and strongly sinuate; anterior margin shorter and more arcuate than the posterior, the latter nearly transverse; surface feebly and transversely impressed just behind the anterior margin, and faintly tuberculate at each side near the base; rather finely, variolately, closely, and somewhat irregularly punctured, interspaces very narrow, flat, shining, and minutely reticulated; canalliculation irregular, shallow, beginning before the middle, and extending to within one-fourth the length from the posterior margin. **Elytra** at base very slightly narrower than the head,

sides feebly divergent posteriorly and feebly arcuate, somewhat longer than the width at base; together broadly and rather feebly emarginate posteriorly; suture one-fifth as long again as the pronotum; surface feebly impressed at the base on the suture, coarsely, closely, variolately, and irregularly punctured; punctures coalescent longitudinally, interspaces flat, shining, generally very narrow. **Abdominal** segments uniformly and rather rapidly decreasing in width, first very slightly narrower than the contiguous elytra; border prominent; surface coarsely and feebly punctulate anteriorly; very finely punctulate posteriorly; transverse carinae tricuspid, middle ensps long, well developed, and aciculate, lateral very rudimentary, intervals feebly sinuate. **Legs** moderate, piceous-brown throughout; first joint of the posterior tarsi slightly more than twice as long as the second, as long as the next three together, second slightly longer than the third. Under surface of abdomen piceous-black, paler toward the vertex.

Male.—Posterior edge of the fifth ventral segment feebly emarginate in its middle third, emargination evenly rounded throughout, twelve times as wide as deep, contiguous surface very feebly and cylindrically impressed throughout anteriorly, borders of the impression densely ciliate; sixth segment sinuate at apex, sinus slightly more acutely rounded than the apices, twice as wide as deep, surface of segment not impressed; seventh segment broadly and evenly emarginate at apex, emargination densely fringed with short, cinereous setae.

Female.—Unknown.

Length 3.0 mm.

Oregon, 1.

I have retained the manuscript name attached by Mr. Crotch to the unique specimen.

38. **S. vicinus** n. sp.—Form rather slender. Pubescence extremely sparse, short, and fine, setiform, cinereous. **Head** moderate, slightly more than twice as wide as long; interocular surface very feebly depressed, two and one-third times as wide as the eye; punctures not coalescent, fine, very closely crowded near the eyes, coarser and more distant along the middle; longitudinal elevation scarcely more than one-half as wide as the lateral portions, rather strongly but evenly convex; ocular lines meeting at two lengths in advance; antennae very slightly longer than the width of head, robust, club moderate, basal joint black, remainder dark piceous-brown; third joint one-fourth as long again as the fourth, fourth and fifth equal, sixth and seventh equal in length, the latter thicker, eighth slightly elongated, as wide as the seventh, joints of club increasing in length, last two of equal thickness, last joint conoidal; first joint of maxillary palpi pale testaceous, second and third slightly darker, piceous. **Prothorax** widest at the middle, where it is perceptibly narrower than long; sides thence moderately convergent posteriorly and nearly straight; anterior margin slightly longer and more arcuate than the posterior; surface nearly evenly convex, rather finely, closely, variolately, and irregularly punctured, punctures not coalescent; canalienation very narrow, shallow, irregularly outlined, beginning slightly before the middle and equal in length to one-half the pronotum.

Elytra at base about equal in width to the head; sides nearly parallel, slightly arcuate, longer than the width at base; together broadly, very evenly, and feebly emarginate posteriorly; suture one-fifth as long again as the pronotum; surface broadly convex, broadly and feebly impressed about the suture at the base; rather finely, deeply, and somewhat irregularly punctate, punctures seldom coalescing, except at a small spot near the centre of each elytron. **Abdominal** segments decreasing very uniformly and quite rapidly in width, first somewhat narrower than the contiguous elytra; surface convex, finely, and closely punctulate; transverse carinae tricuspid, cusps quite approximate, middle short, aciculate at tip, lateral broad, expanding at tip, intervals strongly sinuate. **Legs** rather long and slender, pale piceous and rufopiceous; first joint of posterior tarsi twice as long as the second, joints two to four very narrow at base, decreasing uniformly in length, fifth very narrow at base.

Male.—Posterior edge of the fifth ventral segment emarginate in its middle third, emargination evenly rounded, very feeble, twelve times as wide as deep; sixth segment sinuate at apex, sinus and vertices equal in width and curvature, sinus but slightly wider than deep; seventh broadly and feebly emarginate at the vertex.

Female.—Sixth segment rounded behind.

Length 3.0 mm.

District of Columbia, 1; Pennsylvania, 20; Selma, Alabama, 1.

A very common species, abounding on the shores of Delaware Bay below Philadelphia; it also occurs under debris on the beach at Cape May, N. J.

39. **S. ingratus** n. sp.—Form rather slender. Pubescence moderately short, sub-recumbent, coarse, rather close, pale fulvo-cinereous, somewhat conspicuous. **Head** moderate or small, twice as wide as long; interocular surface nearly flat, rather more than twice as wide as the eye, equally trilobed by the very wide and gently rounded sulcations; intermediate surface evenly and feebly convex, punctures small, rounded, rather close, very evenly distributed; ocellar lines meeting at two lengths in advance; antennae short, scarcely as long as the width of head, dark piceous-brown, basal joint blackish, somewhat robust, club moderate; joints three to six nearly uniformly and quite rapidly decreasing in length, sixth slightly longer and much more slender than the seventh, eighth slightly narrower than the seventh, globular, middle joint of club much the thickest; maxillary palpi moderate, dark piceous-brown, basal joint rather pale piceo-testaceous. **Prothorax** arcuately, evenly, and rather rapidly widening to the middle, where it is four-fifths as wide as the head and distinctly narrower than long; sides thence rather rapidly convergent and sinuate; anterior margin just perceptibly longer and more arcuate than the posterior; surface rather finely, feebly, distantly, and evenly punctate; punctures round, separated by their own widths, interspaces nearly flat, polished; canalication oblong, beginning very slightly before the middle, equal in length to two-fifths that of the pronotum, feebly, and roundly impressed. **Elytra** at base equal in width to the head; sides strongly divergent posteriorly, longer than the width at base, straight for a

short distance anteriorly, then rather strongly arcuate behind; together broadly, roundly, and rather strongly emarginate behind; suture scarcely one-eighth as long again as the pronotum; surface rather depressed, nearly even, rather coarsely, feebly, and evenly punctate; punctures round, not separated by their own widths, occasionally partially coalescent in twos, but not completely so; interspaces feebly convex and shining. **Abdominal** segments decreasing nearly uniformly and gradually in width, first as wide as the contiguous elytra; surface highly polished, rather coarsely, closely, and evenly punctulate; transverse carinae tricuspid, middle cusps strong, becoming finely acicular toward the tips, lateral much shorter and somewhat rudimentary; cusps widely separated. **Legs** short and slender, dark piceous-brown, nearly black above; first joint of posterior tarsi twice as long as the second, shorter than the fifth, joints two, three, and four very short, sub-equal.

Male.—Unknown.

Female.—Sixth ventral segment rather elongated, very evenly, though rather narrowly, rounded behind.

Length 2.8–3.1 mm.

Detroit, Michigan, 1.

Resembles *parallelus* somewhat; the punctuation, however, is much finer and of a different character. It may prove difficult, in some specimens, to determine to which group it belongs, owing to the punctures being almost entirely isolated.

40. ***S. neglectus*** n. sp.—Form rather slender. Pubescence so sparse and fine as to be scarcely visible on the head, prothorax, and elytra, longer on the abdomen, where it increases in length toward the tip, and becomes recumbent, cinereous. **Head** moderate, twice as wide as long; interocular surface feebly excavated, twice as wide as the eye; coarsely, somewhat evenly punctured, interspaces one-half as wide as the punctures, polished; equally trilobed by the very distinct sulcations; intermediate elevation convex; antennae much longer than the width of head, very slender, first two joints black, remainder piceous-black, club very slender; third joint one-third as long again as the fourth, joints four to six uniformly decreasing in length, eighth very small, elongated, joints of club increasing in length, last two of equal thickness; maxillary palpi translucent, first joint rufo-testaceous, second darker, third almost black. **Prothorax** similar to that of *S. intrusus*. **Elytra** at base as wide as the head; sides divergent posteriorly and arcuate, more strongly so posteriorly; together broadly and somewhat strongly emarginate posteriorly; suture just perceptibly longer than the pronotum; surface somewhat impressed on the suture at the base; very coarsely, deeply, and irregularly sculptured; punctures occasionally isolated and rounded, at other spots joined into tortuous channels, interspaces at some points in the form of acute ridges, at others as broad as the channels, very convex and polished, exhibiting at the same time a very minute reticulation. **Abdominal** segments decreasing regularly and gradually posteriorly, first nearly as wide as the contiguous elytra; border strong; surface convex,

polished, very sparsely and finely punctulate; transverse carinae tricuspid, middle cusps fine and acicular, lateral nearly as long, dilated at apex, and inclined inward, intervals moderately sinuate. Under surface dark piceous. **Legs** rather slender, piceous; first joint of the posterior tarsi twice as long as the second, second notably longer than the third.

Male.—Posterior edge of the fifth ventral segment feebly emarginate in its middle third, emargination evenly rounded, ten times as wide as deep, contiguous surface somewhat deeply and conically impressed, impression disappearing anteriorly at one-half the length of the segment, having the borders sharply defined and clothed with exceedingly long setae; sixth segment sinuate at apex, sinus acutely rounded at bottom, twice as wide as deep; seventh broadly and deeply emarginate at apex, provided with two long stiff setae.

Female.—Sixth segment evenly rounded behind without any perceptible irregularity.

Length 3.8–4.0 mm.

Cambridge, Massachusetts, 1; Grimsby, Ontario, 3; Illinois, 1; Nebraska, 1.

Resembles *intrusus* somewhat; it may be distinguished at once from that species by its deeper, closer, and much more channeled elytral sculpture, as well as by very decided differences in the sexual characters. It appears to be much less abundant than *intrusus*, and is very slightly more elongated in form.

41. ***S. scabiosus*** n. sp.—Form nearly as in *femoratus*. Pubescence very short and sparse, sub-recumbent, fine, pale flavo-cinereous on the abdomen, dark plumbeous on the remainder of the upper surface. **Head** robust, twice as wide as long; interocular surface scarcely twice as wide as the eye, distinctly depressed; longitudinal elevation slightly narrower than the lateral portions, rather strongly and evenly convex; sulcations distinct; punctures small, round, isolated, moderately impressed, close; ocular lines meeting at slightly less than one length in advance; antennae distinctly longer than the width of head, slender, basal joint black, remainder dark piceous-brown, club slender, much elongated; third joint slightly bent, more than one-half longer than the fourth, fourth and fifth equal, sixth and seventh sub-equal in length, the latter much the more robust, eighth one-fourth longer than wide, as robust as the seventh, ovoidal, joints of club increasing very rapidly in length, last nearly twice as long as wide; maxillary palpi long and slender, piceous-brown throughout. **Prothorax** arcuately, evenly, and rather rapidly increasing in width to a point distinctly behind the middle, where it is five-sixths as wide as the head, and slightly narrower than long; sides thence rapidly convergent posteriorly and distinctly sinuate; anterior margin slightly shorter and very slightly more arcuate than the posterior; surface strongly and distinctly tuberculate near the basal angles, transversely and feebly impressed just behind the apex; feebly, minutely, closely, and confusedly punctate, transversely channeled in front of the middle; canaliculation terminating at equal distances from the base and apex, fusiform, rather

deeply impressed, slightly more than one-half as long as the pronotum, bottom impunctate and shining. **Elytra** at base distinctly narrower than the head; sides moderately divergent posteriorly, slightly longer than the width at base, feebly arcuate; together broadly and rather strongly emarginate behind; suture one-fifth longer than the pronotum; surface rather depressed, feebly impressed on the suture near the base, rather feebly, very closely and confusedly punctate; punctures seldom coalescing, interspaces varying in width, moderately convex, and comparatively lustreless. **Abdominal** segments decreasing uniformly and very gradually in width, first very slightly narrower than the contiguous elytra; surface shining, extremely feebly, finely, evenly, and rather distantly punctulate; transverse carinae tricuspid, middle cusps strong, finely aciculate at apex, lateral much shorter and broader, acuminate at tip. **Legs** moderate, slender, luscous above, femora rather pale rufous beneath, posterior femora long, slender, and very straight; first joint of posterior tarsi twice as long as the second, and distinctly longer than the fifth, joints two to four decreasing uniformly and rather gradually in length.

Male.—Unknown.

Female.—Sixth ventral segment very feebly and narrowly bilobed.

Length 3.3 mm.

Marquette, Lake Superior, 1.

This species bears a considerable resemblance to *femoratus* Say; the similarity is superficial, however, as the punctuation is of an entirely different order.

42. **S. vespertinus** n. sp.—Form robust. Pubescence moderately short, fine, semi-erect, setiform, rather close, evenly distributed, pale piceo-cinereous. **Head** rather small, robust, twice as wide as long; interocular surface nearly flat, twice as wide as the eye, equally trilobed by the very strong rounded sulcations; intermediate surface evenly and strongly convex; finely, rather evenly, and somewhat distantly punctate, interspaces flat and moderately lustrous; ocular lines meeting at two-thirds of a length in advance; antennae very slightly longer than the width of head, piceous-black, slender, club moderate; third joint one-third as long again as the fourth, fourth and fifth equal, sixth and seventh equal in length, the latter one-half as thick again, eighth as wide as long, sub-globular, joints of club sub-globular, last slightly elongated; maxillary palpi rather long and slender, piceous-black, first joint deep rufo-testaceous, third somewhat flattened and densely clothed with short, semi-erect, cinereous setae. **Prothorax** robust, widest just before the middle, where it is four-fifths as wide as the head, and as broad as long; sides thence slightly less rapidly convergent anteriorly than posteriorly, and nearly straight; anterior margin slightly longer and more arcuate than the posterior; surface nearly evenly convex, very faintly and obliquely tuberculate near the basal angles; finely, moderately closely, and rather confusedly punctate, interspaces flat; canaliculation in the form of a very faint erosion, which is, however, clearly outlined, slightly nearer the base than the apex, and two-thirds as long as the pronotum. **Elytra** at base distinctly wider than the head; sides very feebly

divergent posteriorly, just perceptibly longer than basal width, and rather feebly arcuate; together rather broadly and strongly emarginate behind; suture about one-third as long again as the pronotum; surface rather convex, very feebly impressed on the suture near the base, rather finely and moderately closely punctured; punctures confused near the exterior margins, more distant and even near the suture, where they are seldom coalescent; interspaces nearly flat, polished. **Abdominal** segments decreasing uniformly and gradually in width, first as wide as the contiguous elytra; surface very broad, rather coarsely, closely, and evenly punctulate, much more finely so toward the tip, and also finer at the apices of the segments than at the bases; transverse carinae tricuspid, middle cusps strong, rather long and finely acuminate at tip, lateral scarcely one-half as long, broad, somewhat rudimentary. **Legs** rather short and stout, black throughout; first joint of the posterior tarsi two-thirds as long again as the second, somewhat longer than the last, second much longer than the third, first four joints cylindrical and equal throughout in thickness, fifth joint narrower at base than at tip.

Male.—Unknown.

Female.—Sixth ventral segment broad and evenly, though rather obtusely rounded behind.

Length 3.1 mm.

Tenino, Washington Territory, 1.

This is a very distinct species.

43. **S. convictor** n. sp.—Form very moderately robust. Pubescence short, fine, rather close except at the tip of the abdomen, where it is fine, long, sparse, and recumbent, piceous. **Head** robust, not twice as wide as long; interocular surface nearly three times as wide as the eye, flat, closely, rather coarsely, evenly, and sub-variately punctate, punctures often coalescing; longitudinal elevation narrower than the lateral portions, evenly and rather strongly convex; ocular lines meeting at one and one-half lengths in advance; antennae slightly longer than the width of head, slender, piceous-black, club moderate; third joint one-third as long again as the fourth, fourth very slightly longer than the fifth, eighth as long as the ninth, last joint much elongated, acuminate at tip; maxillary palpi rather long and slender, first joint translucent, testaceous, remainder piceous-black. **Prothorax** robust, arcuately widening to the middle, where it is five-sixths as wide as the head and as broad as long; sides thence rather strongly convergent, and very feebly sinuate; anterior margin shorter and more arcuate than the posterior; surface slightly swollen along the sides and at the edges of the canalliculation, transversely and rather strongly impressed just behind the anterior margin; rather finely, very closely, evenly, and very confusedly punctate; punctures sub-variolate, very irregular in outline; canalliculation rather narrow, impressed, terminating at equal distances from the margins, three-fourths as long as the pronotum. **Elytra** at base just perceptibly broader than the head; sides very moderately divergent posteriorly, longer than the width at base, and feebly arcuate; together broadly and very feebly emarginate behind; suture nearly one-third as long again as the pronotum; surface rather convex, impressed on the suture toward the base; very closely,

finely, and confusedly sculptured; punctures only isolated near the inner basal angles, elsewhere coalescent in very long channels, which are usually longitudinal near the suture. **Abdominal** segments decreasing uniformly and moderately rapidly in width, first notably narrower than the contiguous elytra: surface rather convex, highly polished; feebly, finely, closely, and evenly punctulate; transverse carinae trienspid, middle cusps fine and aciculate, lateral broad, large, and very confusedly outlined. **Legs** rather short and slender, black above, piceous-brown beneath; first joint of the posterior tarsi four-fifths as long again as the second, slightly longer than the last, and equal to the second and third together.

Male.—Fifth ventral segment not modified; sixth segment sinuate at apex, sinus and apices equal in width and curvature, sinus twice as wide as deep; seventh segment feebly emarginate at tip, emargination evenly rounded and very slight, teeth not developed.

Female.—Unknown.

Length 3.3 mm.

Washington Territory, 1.

44. **S. confusus** n. sp.—Form moderately robust. Pubescence excessively fine, sparse, and short, setiform, cinereous. **Head** rather large, twice as wide as long; interocular surface feebly excavated, twice as wide as the eye, finely, rather closely, and evenly punctured; punctures round and sometimes partially coalescing; longitudinal elevation narrower than lateral portions, strongly and evenly convex, prominent, crest impunctate; ocellar lines meeting at one length in advance; antennae scarcely longer than the width of head, rather slender, club distinct, dark piceous-brown; third joint one-third as long again as the fourth, fourth and fifth equal, sixth and seventh equal in length, shorter, eighth elongated, broader than the sixth, joints of elnb increasing uniformly in length and thickness; first joint of maxillary palpi rufo-testaceous, base of second darker, remainder piceous. **Prothorax** widest at one-third its length posteriorly, where it is three-fourths as wide as the head and very slightly narrower than long; sides thence very moderately convergent and nearly straight; anterior margin more arcuate and just perceptibly shorter than the posterior; surface faintly bituberculate at the sides, feebly and transversely impressed behind the anterior margin; finely and somewhat evenly punctate, interspaces one-half as wide as the punctures, rather flat, shining; canaliculation distinct, fusiform, deeply impressed, beginning just before the middle and extending posteriorly for two-fifths the total length. **Elytra** at base distinctly narrower than the head; sides moderately divergent posteriorly and nearly straight, longer than the width at base; together very broadly and triangularly emarginate posteriorly; suture slightly longer than the pronotum; surface convex, impressed along the suture, strongly so at base; each elytron also has a short longitudinal impression in the middle at the base; finely and irregularly punctured, punctures widely separated near the inner basal angles, closely crowded near the middle and exteriorly, interspaces flat, polished. **Abdominal** segments decreasing excessively gradually but uniformly in width, first somewhat narrower than the contiguous elytra; surface broadly convex,

finely and rather closely punctulate; transverse carinae tricuspid, cusps widely separated, short, middle ones aciculate at tips; under surface finely and sparsely punctulate, piceous-black, densely pubescent. **Legs** moderate, fusco-piceous; first joint of the posterior tarsi twice as long as the second second very slightly longer than the third.

Male.—Unknown.

Female.—Sixth ventral segment having traces of a slight bilobation at apex, otherwise evenly rounded.

Length 2.7 mm.

White Fish Point, Michigan, 1.

45. ***S. inornatus*** n. sp. (Schwarz MS.).—Form rather slender. Pubescence moderately close and long, semi-erect, setiform, cinereous, and rather conspicuous. **Head** moderate, slightly more than twice as wide as long; interocular surface nearly flat, slightly more than twice as wide as the eye; closely, evenly, and finely punctate throughout; interspaces one-half as wide as the punctures, convex, polished; longitudinal elevation as wide as the lateral portions, evenly and moderately convex, very apparent; ocular lines meeting at over two lengths in advance; antennae longer than the width of head, rather slender, piceous-black, club small; third joint one-third as long again as the fourth, fourth and fifth equal, sixth much longer and narrower than seventh, eighth elongated, nearly as thick as the seventh, joints of club increasing in length, last two equal in width, last as long as the eighth and ninth together; maxillary palpi dark piceous, first joint slightly paler. **Prothorax** widest slightly before the middle, where it is four-fifths as wide as the head, and very slightly narrower than long; sides thence very moderately convergent posteriorly and very feebly sinuate; anterior and posterior margins equal in length, the former the more arcuate; surface rather evenly convex, closely, rather finely, and evenly punctured; punctures polygonal in outline, interspaces one-fourth their width, convex, and polished; canaliculation distinct, somewhat irregular in outline, roundly impressed, beginning slightly before the middle, and equal in length to one-half that of the pronotum. **Elytra** at base as wide as the head; sides nearly parallel, slightly longer than the width at base; together moderately emarginate posteriorly; suture slightly longer than the pronotum; surface evenly and rather strongly convex, deeply, very closely, rather finely, and evenly punctate, interspaces narrow, convex, and polished. **Abdominal** segments decreasing uniformly and extremely gradually in width, first as wide as the contiguous elytra; surface convex, evenly, rather coarsely, and moderately closely punctulate; transverse carinae tricuspid, middle cusps long and acicular, lateral one-half as long, broad, truncate at tip. **Legs** dark piceous above, rufopiceous beneath, rather short and stout; first joint of the posterior tarsi three-fourths as long again as the second, and as long as the second and third together, last joint longer than the first.

Male.—Posterior edge of the fifth ventral segment feebly emarginate in its middle fourth, emargination evenly rounded, and ten times as wide as deep, contiguous surface flattened throughout anteriorly, and bordered with long,

semi-recumbent, piceous setae; sixth segment sinuate at apex, sinus somewhat more broadly rounded than the apices, four times as wide as deep.

Female.—Sixth segment evenly rounded behind throughout.

Length 2.6–2.9 mm.

Cambridge, Massachusetts, 4; Detroit, Michigan, 7; White Fish Point, Lake Superior, 1.

46. **S. placidus** n. sp.—Form moderately slender. Pubescence very short, fine, sparse, recumbent, cinereous, scarcely visible. **Head** robust, scarcely twice as wide as long; interocular surface twice as wide as the eye, moderately excavated, equally trilobed by the rounded, but conspicuous sulcations; intermediate surface evenly and rather strongly convex; punctures rather coarse, close, and evenly distributed; ocular lines meeting at one length in advance; antennae slender, longer than the width of head, first joint black, remainder dark piceous-brown, club distinct; third joint one-third as long again as the fourth, fourth and fifth sub-equal, sixth and seventh equal in length, the latter thicker, eighth slightly longer than wide, joints of club uniformly increasing in length and thickness; maxillary palpi piceous-brown, first joint flavo-testaceous. **Prothorax** robust, widest just before the middle, where it is four-fifths as wide as the head, and about as broad as long; sides thence very moderately convergent posteriorly and nearly straight; anterior and posterior margins equal in length, the former much the more arcuate; surface feebly tuberculate along the sides, especially toward the base, very closely, rather finely and somewhat evenly punctate; canalization very obscure, being merely a slight, irregular erosion, commencing before the middle, one-third as long as the pronotum. **Elytra** at base just perceptibly narrower than the head; sides rather strongly divergent posteriorly, very feebly arcuate, equal in length to the width at base; together broadly, rather strongly and triangularly emarginate behind; suture slightly longer than the pronotum; surface somewhat depressed, nearly even, coarsely, closely, irregularly, and sub-variolately punctured; punctures more isolated near the inner basal angles. **Abdominal** segments decreasing uniformly and somewhat rapidly in width, first a little narrower than the contiguous elytra; surface broadly convex, rather coarsely, closely, and evenly punctulate; transverse carinae tricuspid, lateral cusps short, broad, and rudimentary, middle long, finely aciculate, conspicuous. **Legs** rather short and robust, fuscous, under sides of femora nearly rufous; first joint of posterior tarsi two-thirds as long again as the second, as long as the last, second distinctly longer than the third.

Male.—Posterior edge of the fifth ventral segment just perceptibly incurvate in the middle; sixth segment feebly sinuate at apex, sinus rather broad and extremely feeble.

Female.—Sixth ventral segment evenly rounded behind.

Length 2.5–2.7 mm.

Detroit, Michigan, 9.

The sexual characters of this species are very feebly but still of such a nature as to be almost unmistakable; the sixth segment is

rather narrow, and is truncated rather broadly at the tip, with the side angles rounded, and the truncation slightly incurvate in the middle.

There is before me a specimen from Marquette, Michigan, which I have referred to this species, although it presents a slightly different facies, and is rather more slender.

47. *S. mendax* n. sp.—Form rather slender. Pubescence as in *indigenus*, but longer and more recumbent on the abdomen. Head rather robust, twice as wide as long; interocular surface moderately depressed, very finely, moderately sparsely, and rather evenly punctate, interspaces very flat, rather lustrous; longitudinal elevation distinctly narrower than the lateral portions, evenly and strongly convex, prominent, summit narrowly impunctate; ocular lines meeting at nearly two lengths in advance; first joint of antennae black, second dark piceous-brown; first joint of maxillary palpi and base of the second pale testaceous, remainder piceous, third joint not greatly exceeding the second in length. Prothorax widest at the middle, where it is three-fourths as wide as the head, and about as wide as long; sides thence equally convergent anteriorly and posteriorly, and nearly straight; anterior and posterior margins equal in length, the former strongly arcuate, the latter straight; surface rather strongly tuberculate near each basal angle, transversely and feebly impressed just behind the anterior margin, finely, rather closely and somewhat irregularly punctate; punctures more isolated at the middle, interspaces highly polished, flattened; canalication in the form of a very faint and just perceptible longitudinal erosion. Elytra at base somewhat narrower than the head; sides rather strongly divergent posteriorly, slightly longer than the width at base and very feebly arcuate; together roundly and rather strongly emarginate behind; surface depressed, feebly and broadly impressed along the suture, very closely punctate, punctures growing more coarse and confluent toward the apices. Abdominal segments decreasing rather uniformly and gradually in width, first scarcely as wide as the contiguous elytra; surface broadly convex, coarsely, closely, and evenly punctulate, more finely so toward the tip; transverse carinae tricuspid, middle cusps fine and aciculate, lateral shorter and bifurcate. Legs moderate, rather pale fuscous; first joint of the posterior tarsi three-fifths as long again as the second, and somewhat shorter than the last, second joint nearly as long as the third and fourth together.

Male.—Unknown.

Female.—Sixth ventral segment somewhat acutely and very evenly rounded behind.

Length 2.4 mm.

Cambridge, Massachusetts, 1.

The antennae are missing with exception of the first two joints.

In this particular portion of the genus the specific differences become very slight and somewhat uncertain; without previous study and long-continued observation the species might be pronounced in some instances identical. The specimens combined in *ericensis* and

placidus were at first described as three or four distinct species, and I have suppressed all but those here given in order to satisfy my mind more completely of the validity of at least these typical representatives. The series of specimens are scarcely large enough to admit of conclusive judgment, but I am almost convinced that I have understated the number of species.

48. **S. oriensis** n. sp.—Form as in *placidus*. Pubescence short, fine, semi-erect, setiform, rather sparse, cinereous, coarser and longer on the elytra than on the prothorax and head. **Head** robust, twice as wide as long; interocular surface twice as wide as the eye, nearly flat, finely, very closely and rather evenly punctate; punctures more distant along the middle; longitudinal elevation as wide as latera' portions, broadly and feebly convex; ocellar lines meeting at one length in advance; antennae slender, dark piceous, basal joint black, club moderate; third joint one-third as long again as the fourth, fourth and fifth equal, sixth somewhat longer and narrower than the seventh, eighth very slightly elongate, as wide as the seventh, middle joint of club widest; maxillary palpi piceous, first joint much paler. **Prothorax** robust, widest at one-half the length posteriorly, where it is four-fifths as wide as the head, and very slightly narrower than long; sides thence moderately convergent and straight; anterior margin longer than posterior, equally arcuate; surface somewhat tuberculate at the sides, finely, closely, and evenly punctate, interspaces one-third as wide as the punctures, very convex, polished; canaliculation just visible as an irregular and short erosion of the surface just behind the middle. **Elytra** at base as wide as the head; sides very moderately divergent posteriorly, very slightly longer than the width at base and feebly arcuate; together broadly and very feebly emarginate behind; suture nearly one-fifth as long again as the pronotum; surface very feebly impressed along the suture, rather coarsely, very closely, deeply, and somewhat irregularly punctate; punctures in contact longitudinally behind and near the suture, sometimes isolated anteriorly. **Abdominal** segments decreasing uniformly and quite rapidly in width, first as wide as the contiguous elytra; surface broadly convex, rather coarsely and irregularly punctulate, more distantly so in the middle of the segments, and more finely toward the vertex; transverse carinae tricuspid, middle cusps long and finely aciculate, lateral very small, distant, and rudimentary. **Legs** moderate, dark piceous-brown; first joint of the posterior tarsi four-fifths as long again as the second, as long as the next two together, last joint much longer than the first, as long as the second, third and fourth together. Under surface of the abdomen dark piceous, finely punctulate. Body winged.

Male.—Posterior edge of the fourth ventral segment emarginate in its middle third, emargination evenly rounded and just perceptible, contiguous surface flattened and bordered with long setae; fifth segment emarginate in its middle fourth at apex, emargination very evenly rounded, five to six times as wide as deep, contiguous surface flattened and bordered with long setae; sixth segment sinuate at apex, sinus sharply rounded, twice as wide as deep, sinus and vertices equal in extent.

Female.—Unknown.

Length 2.4–2.6 mm.

Detroit, Michigan, 3.

Both terminal joints of the antennae in the above type specimen are deeply indented almost throughout their length and breadth below, but I can find no sign of such a malformation in the other specimens. This species is quite distinct from these which most resemble it, in the elongated terminal joint of the tarsi.

49. **S. sphaerops** n. sp.—Form moderately slender. Pubescence rather long, recumbent, close, and abundant on the abdomen, much more sparse on the remainder of the upper surface, flavo-cinereous. **Head** large, more than twice as wide as long; interocular surface twice as wide as the eye, nearly flat, finely sub-variately, rather closely and evenly punctate; longitudinal elevation wider than lateral portions, evenly convex and distinct; ocular lines meeting at three to four lengths in advance; antennae slender, much longer than the width of head, piceous-black, paler toward the tip, club moderate, slender; joints three to seven much elongated, third joint one-third as long again as the fourth, fourth and fifth sub-equal, sixth and seventh sub-equal in length, shorter, the latter slightly thicker, eighth three times as long as wide, joints of club elongated, increasing in length; maxillary palpi long and slender, piceous-black throughout. **Prothorax** widest at the middle, where it is two-thirds as wide as the head, and distinctly narrower than long; sides thence moderately convergent posteriorly and feebly sinuate; anterior margin slightly longer and more arcuate than the posterior; surface rather strongly tuberculate along the sides toward the base, finely, very closely, deeply, and irregularly punctate; punctures crowded and transversely elongated near the margins, often widely isolated near the middle, along the middle throughout the entire length there is a narrow line sunken slightly below the general surface, from which the punctures seem to stream out. **Elytra** at base distinctly narrower than the head; sides feebly divergent posteriorly, equal in length to the width at base, very feebly arcuate, more so posteriorly; together broadly and feebly emarginate behind; suture equal in length to the pronotum; surface rather coarsely, very deeply, closely, and somewhat irregularly punctate, interspaces very convex, highly polished. **Abdominal** segments decreasing uniformly and rather gradually in width, first somewhat narrower than the contiguous elytra; surface feebly convex, rather finely, closely, and evenly punctulate; transverse carinae strongly arcuate posteriorly, 4-cuspid, cusps very fine, rather approximate, aciculate, more coarsely so on the first two segments. **Legs** long and slender, fuscous, except the under surfaces of the femora, which are rufous; first joint of the posterior tarsi two-thirds as long again as the second, as long as the second and third together, and somewhat longer than the fifth, joints two to four uniformly and gradually decreasing in length.

Male.—Posterior edge of the fourth ventral segment emarginate in its middle third, emargination evenly rounding and just perceptible, contiguous surface flattened anteriorly; fifth segment emarginate in its middle third at apex, emargination rather strong, evenly rounded, and six times as wide as

deep, contiguous surface flattened, or very feebly and cylindrically impressed throughout anteriorly; sixth segment deeply sinuate at apex, sinus evenly rounding, three times as wide as deep, having nearly the same curvature as the apices; seventh segment feebly emarginate at tip.

Female.—Unknown.

Length 4.0 mm.

Tyngsborough, Massachusetts, 1.

This fine species is very distinct; the eyes are very large and convex; the abdomen is covered densely beneath with very long, fine, picceous pubescence.

50. *S. militaris* n. sp.—Form moderately robust. Pubescence short, fine, sub-recumbent, sparse, setiform, and cinereous. **Head** moderate, more than twice as wide as long; interocular surface slightly convex, nearly three times as wide as the eye, coarsely, very closely, variolately, and evenly punctate; longitudinal elevation wider than the lateral portions, rather acutely convex and moderately prominent; ocular lines meeting at nearly three lengths in advance; antennae very slightly longer than the width of head, black, club large; third joint one-half as long again as the fourth, joints four to seven decreasing uniformly and very slowly in length, eighth slightly elongated, regularly oval, joints of club increasing in length and thickness, last nearly as long as the ninth and tenth together; maxillary palpi short, picceous-black, first joint very slightly paler. **Prothorax** robust, widest at the middle, where it is four-fifths as wide as the head and just perceptibly narrower than long; sides thence equally convergent anteriorly and posteriorly, and nearly straight; anterior and posterior margins equal in length, the former slightly the more arcuate; surface transversely and very faintly impressed just behind the apical margin, and feebly tuberculate at the sides near the base, finely, very closely, somewhat regularly and sub-variolately punctured; canaliculation in the form of a mere erosion in the middle, one-half as long as the pronotum, and very difficult of observation. **Elytra** at base very slightly narrower than the head; sides feebly divergent posteriorly, slightly longer than the width at base, feebly arcuate; together broadly and distinctly emarginate behind; suture one-seventh as long again as the pronotum; surface faintly impressed along the suture and feebly tuberculate near the middle of each elytron, rather coarsely, closely, and irregularly punctured, punctures rather deeply impressed, interspaces generally one-fourth as wide as the punctures, convex, polished. **Abdominal** segments decreasing uniformly and rather rapidly in width, first as wide as the contiguous elytra; surface broadly convex, coarsely and distantly punctulate, much more finely and closely so toward the tip; transverse carinae 4-cuspid, cusps closely approximate, short, equal, and stout. **Legs** robust, black above, picceous-black beneath: first joint of the posterior tarsi two-thirds as long again as the second, longer than the next two together, and somewhat shorter than the last, third and fourth sub-equal. Under surface of abdomen coarsely and closely punctulate, densely clothed with long, coarse, cinereous setae, which are nearly recumbent.

Male.—Posterior edge of the fifth ventral segment emarginate in its middle half, emargination evenly rounded and just perceptible; sixth segment broadly sinuate at apex, sinus very wide, somewhat acutely rounded at the bottom, and eight times as wide as deep.

Female.—Sixth segment evenly rounded behind.

Length 2.5 mm.

Batchewauung Bay, Lake Superior, 2.

51. **S. pluto** n. sp.—Form robust. Pubescence very short and sparse, sub-recumbent, pale flavo-cinereous. **Head** very small, slightly more than twice as wide as long; interocular surface distinctly convex, more than twice as wide as the eye; longitudinal elevation wider than the lateral portions, feebly convex; sulcations feeble, punctures coarse, rounded, evenly distributed, interspaces nearly one-half as wide as the punctures, very convex, polished; ocular lines meeting at somewhat less than two lengths in advance; antennae distinctly longer than the width of head, robust, club distinct, first and second joints nearly black, remainder rather dark piecous-brown; third, fourth, and fifth joints uniformly and rapidly decreasing in length, sixth and seventh abruptly shorter, equal in length, cordate, the latter slightly thicker, eighth as thick as the seventh, globular, joints of club increasing rapidly in length and thickness; maxillary palpi rather short and robust, piecous-black, first joint rather pale pieco-testaceous. **Prothorax** widest slightly before the middle, where it is very slightly narrower than the head and distinctly narrower than long; sides thence feebly convergent posteriorly and nearly straight; anterior and posterior margins sub-equal in length, the former slightly the more arcuate; surface rather strongly tuberculate near the basal angles, more convex in the middle, closely, very finely, deeply, and irregularly punctate; canaliculation narrow, somewhat distinct, terminating at equal distances from the base and apex, nearly three-fourths as long as the pronotum. **Elytra** at base much wider than the head; sides feebly divergent posteriorly, slightly longer than the width at base, and strongly arcuate; together roundly and somewhat feebly emarginate behind; suture nearly one-fourth as long again as the pronotum; surface narrowly and feebly impressed along the suture, deeply, very closely, rather finely and exceedingly irregularly channeled, interspaces convex and highly polished. **Abdominal** segments decreasing very uniformly and rather rapidly in width, first slightly narrower than the contiguous elytra; surface polished, finely and sparsely punctulate; transverse carinae 4-cuspid, cusps equal in length, equidistant, rather long, fine and generally enlarged slightly at the tips. **Legs** slender, piecous-black; first joint of the posterior tarsi short, fourths as long again as the second, distinctly shorter than the fifth, second and third equal, fourth slightly shorter, as wide as long; tarsi nearly cylindrical throughout.

Male.—Posterior edge of the fifth ventral segment just perceptibly emarginate in the middle; sixth segment very broad at apex, where it is broadly sinuate, sinus occupying nearly the entire segmental apex, evenly rounded, and about eight times as wide as deep; seventh broad and truncate at tip, lateral setae moderately developed.

Female.—Sixth segment very broad, evenly rounded behind.

Length 2.7-2.8 mm.

Cambridge, Massachusetts, 3.

This species is readily distinguished by the tarsal structure, and the very irregular channeled sculpture of the elytra.

52. *S. incultus* n. sp.—Form moderately slender. Pubescence rather long, close, recumbent, cinereous, very conspicuous on the abdomen. **Head** rather small, twice as wide as long; interocular surface scarcely twice as wide as the eye, just perceptibly depressed; almost equally trilobed by the very indistinct sulcations; intermediate surface very feebly convex, punctures moderately coarse, rather close and even, occasionally coalescent in twos or threes; ocular lines meeting at one length in advance; antennae much longer than the width of head, black, slender, club moderate and rather densely clothed with short cinereous pubescence; third joint one-third as long again as the fourth, fourth and fifth equal, sixth and seventh joints but little shorter, the latter very slightly the shorter and thicker, eighth feebly elongated, slightly thicker than the seventh, ovoidal, joints of club increasing uniformly and very gradually in length and thickness; maxillary palpi moderate in length, piceous-black throughout; labrum narrow and very strongly arcuate anteriorly. **Prothorax** very gradually and arcuately widening to a point just in advance of the middle, where it is four-fifths as wide as the head, and nearly one-sixth narrower than long; sides thence moderately convergent and very feebly sinuate; anterior margin distinctly longer than the posterior, equally arcuate; surface almost evenly convex, rather finely, feebly, closely, coalescently, and somewhat confusedly punctate; canaliculation in the form of a narrow, indistinctly outlined, shallow erosion, extending nearly to the margin. **Elytra** at base just perceptibly wider than the head; sides almost parallel, slightly longer than the width at base, rather strongly and evenly arcuate; together broadly and rather strongly emarginate behind; suture about one-eighth as long again as the pronotum; surface very feebly impressed on the suture at the base, rather finely, very closely, rather feebly, and very confusedly punctured and channeled. **Abdominal** segments decreasing uniformly and very gradually in width, first very slightly narrower than the contiguous elytra; surface moderately convex, finely, rather distantly, and evenly punctulate; transverse carinae 4-cuspid, middle cusps short, fine, and aciculate, lateral broader and acuminate. **Legs** rather long and slender, black, rather densely clothed with short cinereous pubescence; first joint of the posterior tarsi one-half as long again as the second, distinctly shorter than the last, second nearly one-half as long again as the third.

Male.—Fifth ventral segment very feebly emarginate in its middle three-fifths at apex, emargination evenly rounded, and scarcely measurable, contiguous surface normally convex; sixth segment broadly and feebly sinuate at apex, sinus nearly as broad as the entire segment, very evenly rounded, about ten times as wide as deep; seventh segment narrow and almost squarely truncate at the apex, teeth very small, acute.

Female.—Unknown.

Length 3.1 mm.

Arizona, 1.

53. *S. pterobrachys* G. and H.—Form moderately slender. Pubescence very fine, long, sparse, and recumbent, cinereous. **Head** large, slightly more than twice as wide as long; interocular surface flat near the eyes, not twice as wide as the eye, finely, variolately, and somewhat distantly punctate near the eyes, wholly impunctate in the middle third; longitudinal elevation wider than the lateral portions, evenly and very strongly convex, very prominent; ocular lines meeting at one length in advance; antennae scarcely longer than the width of head, slender, flavate, last two joints infusate, club moderate; third joint one-half as long again as the fourth, fourth and fifth equal, eighth sub-globular; maxillary palpi flavate, last joint very slender. **Prothorax** very robust, widest very slightly before the middle, where it is four-fifths as wide as the head, and as broad as long; sides thence very moderately convergent posteriorly and nearly straight; anterior margin slightly longer and more evenly rounded than the posterior; surface very faintly tuberculate at the sides near the base, minutely, feebly, distantly, and evenly punctate; canalienlation fusiform, deeply impressed, two-thirds as long as the pronotum, terminating near the posterior margin. **Elytra** at base narrower than the head; sides strongly divergent posteriorly and very strongly arcuate, as long as the width at base; together broadly and rather strongly emarginate behind; suture distinctly shorter than the pronotum; surface broadly and feebly impressed along the suture, very feebly and somewhat distantly, but confusedly punctured. **Abdominal segments** decreasing uniformly, but very gradually in width, first as wide as the contiguous elytra; surface broadly convex, feebly and rather distantly punctulate; transverse carinae not cusped. **Legs** moderate, flavate throughout; first joint of the posterior tarsi twice as long as the second, and as long as the next three together, last joint very short.

Male.—Unknown.

Female.—Sixth ventral segment acutely produced at apex, cusp prominent. Length 2.4-2.7 mm.

Alaska, 2.

This is the *S. brevipennis*, of Mäklin, and is so distinct that, although I have been unable to describe the male characters, its identification will always be very easy.

54. *S. corvus* n. sp. (Schwarz MS.).—Form rather robust. Pubescence very short, sparse, sub-erect, rather coarse, piceo-cinereous; flavate on the abdomen, where it is much more dense toward the margins. **Head** moderate, robust, twice as wide as long; interocular surface three times as wide as the eye, very moderately depressed, nearly equally trilobed by the longitudinal sulcations, which are rather feeble; intermediate surface rather feebly convex; punctures extremely close and confused, surface evenly though coarsely roughened, lustreless; ocular lines meeting at somewhat more than one length in advance, strongly curvate anteriorly; eyes narrow; antennae slightly longer than the width of head, slender, club large, basal joint black, second somewhat paler, remainder piceous-brown; third joint one-third as long again as the fourth, fourth and fifth equal, sixth and seventh

equal in length, the latter much the thicker, eighth slightly longer than wide, slightly cordate, and just perceptibly narrower than the seventh, joints of club increasing in length, ninth small, tenth much the broadest; maxillary palpi dark piceous-brown, first joint dark piceo-testaceous. **Prothorax** arcuately, evenly, and very gradually increasing in width to the middle, where it is seven-eighths as wide as the head and distinctly narrower than long; sides thence feebly convergent posteriorly and feebly sinuate; anterior margin slightly longer than the posterior, equally arcuate; surface transversely and feebly impressed just behind the apex, finely, extremely closely, confusedly, and very deeply sculptured, interspaces acute and lustreless; canaliculation narrow, slight, beginning at the middle, nearly one-third as long as the pronotum. **Elytra** at base slightly wider than the head; sides feebly divergent posteriorly, longer than the width at base, and nearly straight, except toward the apices where they are feebly arcuate; together very narrowly and strongly emarginate behind; suture nearly one-third as long again as the pronotum; surface rather finely, very deeply, extremely closely, and irregularly channeled, interspaces acute. **Abdominal** segments decreasing uniformly and rather rapidly in width, first slightly narrower than the contiguous elytra; surface very coarsely, feebly, closely, and evenly punctulate; transverse carinae not cusped, sometimes sex- or poly-dentate, teeth small and acute. **Legs** long and slender, piceous-black, tarsi very long and slender, paler; first joint of posterior tarsi three-fourths as long again as the second, longer than the fifth, joints two to four uniformly and rapidly decreasing in length, fifth as long as the third and fourth together.

Male.—Fifth ventral segment very feebly emarginate in the middle, curve just perceptible and very short; sixth segment truncate at tip.

Female.—Sixth segment narrowly, strongly, and triangularly produced at apex.

Length 3.2–3.6 mm.

Lake Labache, British Columbia, 1 ♂; Fort Tejon, California, 1 ♀.

55. **S. maritimus** Mots.—Form moderately robust. Pubescence excessively sparse, rather long, recumbent, fine, and cinereous. **Head** rather large, twice as wide as long; interocular surface nearly flat, sub-equally trilobed by the rather conspicuous sulcations; sparsely, finely, and very irregularly punctate; longitudinal elevation moderate, almost impunctate, evenly convex; ocular lines meeting at one length; antennae as long as the width of head, rather slender, black, last four joints much paler, club distinct; third joint one-half as long again as the fourth, fourth slightly longer than fifth, sixth much shorter, joints of club increasing in length; maxillary palpi pale flavo-testaceous throughout, third joint scarcely longer than the second. **Prothorax** robust, sides strongly divergent and nearly straight to a point one-third the entire length from the anterior margin, where the width is nearly equal to the length, the sides thence converge rather rapidly, and are almost straight; anterior margin much shorter than the posterior, nearly equally arcuate; surface coarsely and moderately closely punctate, punctures feebly impressed, interspaces very convex, polished; canaliculation roundly

impressed, club-shaped, widest in front, beginning slightly before the middle, one-third as long as the pronotum. **Elytra** at base as wide as the head; sides moderately divergent posteriorly, just perceptibly longer than the width at base, feebly arcuate; together broadly and strongly emarginate behind; suture one-tenth as long again as the pronotum; surface of each elytron distinctly and longitudinally swollen in the middle near the base, very uneven, punctures large and feebly impressed, interspaces very convex highly polished. **Abdominal** segments decreasing uniformly and very gradually in width, first as wide as the contiguous elytra; surface broadly convex, shining, very finely and remotely punctulate; transverse carinae not cusped. **Legs** slender, rather dark fuscous, paler at the bases of the femora; first joint of the posterior tarsi twice as long as the second, as long as the second and third together, last joint much shorter than the first.

Male.—Fifth ventral segment emarginate in its middle third at apex, emargination evenly rounded, seven to eight times as wide as deep, contiguous surface feebly impressed for a short distance anteriorly; sixth segment sinuate at apex, sinus large and acutely rounding at bottom, but slightly more than twice as wide as deep.

Female.—Sixth ventral segment prominently and acutely cusped at apex. Length 4.2-4.5 mm.

Sitka, Alaska, 2; Vancouver Island, 1.

The above description was taken from the Vancouver female, the Alaskan specimens seem to be slightly immature, as the antennae are uniformly of a pale piecous-brown.

56. **S. montanus** n. sp. (Schwarz MS.).—Form slender. Pubescence rather long and sparse, recumbent, fine, fuscous-cinereous. **Head** large, scarcely twice as wide as long; interocular surface flat, punctured, interspaces one-half the width of the punctures, rather flat, shining; longitudinal elevation narrow, in the form of an acute ridge rising far above the general level; ocular lines meeting at about one and one-half lengths in advance; antennae slender, much longer than the width of head, piecous-brown throughout, club slender; third joint one-half as long again as the fourth, fourth and fifth nearly equal, sixth distinctly shorter than the seventh, joints of club elongated; first joint of maxillary palpi testaceous, second darker, third very robust, fuscous. **Prothorax** very short and robust, widest at one-third the length from the anterior margin, where it is as broad as long; sides thence moderately convergent posteriorly and straight; anterior and posterior margins sub-equal; surface nearly even, rather coarsely and evenly punctured; punctures round and impressed, interspaces equal to them in width, shining; canaliculation rather feeble, narrow, commencing just behind the anterior margin and becoming extinct at the base. **Elytra** at base much narrower than the head; sides strongly divergent posteriorly, longer than the width at base and very feebly arcuate; together broadly and just perceptibly emarginate behind; suture one-sixth as long again as the pronotum; surface nearly evenly convex, coarsely, feebly, and quite evenly punctured, interspaces much narrower than the punctures, feebly convex,

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polished; punctures only coalescing in twos near the extreme edges, and there only partially. **First** two abdominal segments of equal width and slightly narrower than the contiguous elytra; border moderate; surface convex, coarsely, feebly, and very closely punctulate; transverse carinae not cusped. **Legs** slender, pale piceous; first joint of the posterior tarsi twice as long as the second, second and third equal in length. Under surface of the abdomen piceous-black.

Male.—Posterior edge of the fifth ventral segment very broadly and just perceptibly emarginate; sixth segment sinuate at the apex, sinus evenly rounded, as wide as deep, one-sixth as wide as the segmental apex.

Female.—Sixth segment broadly and very distinctly angulate at tip.

Length 3.0 mm.

New Hampshire, White Mountains, 2 (forests).

The comparative shortness of the sixth antennal joint renders this species readily distinguishable; it is also very distinct in other characters.

57. **S. alpicola** Fvl.—Form moderately slender. Pubescence extremely fine, moderately long and rather abundant, setiform, pale piceous-brown, not conspicuous. **Head** rather large, much less than twice as wide as long; interocular surface nearly flat, two and one-half times as wide as the eye; equally trilobed by the moderately distinct sulcations; intermediate surface moderately and evenly convex; very closely, rather coarsely, and evenly punctate, interspaces shining; ocular lines meeting at slightly more than one length in advance; antennae slender, slightly longer than the width of head, dark piceous-brown, club slender; third joint three-fourths as long again as the fourth, fourth and fifth sub-equal, sixth and seventh equal, shorter, eighth slightly elongated and just perceptibly wider than the sixth, joints of club increasing in length, last nearly as long as the two preceding together; maxillary palpi very long and slender, dark piceous-brown, paler toward the base. **Prothorax** robust, widest very slightly before the middle, where it is three-fourths as wide as the head, and as wide as long; sides thence moderately convergent posteriorly and feebly sinuate; anterior and posterior margins equal in length, the former very slightly the more arcuate; surface evenly convex, rather coarsely, closely, variolately, and somewhat evenly punctate; canaliculation conspicuous, narrowly fusiform, deep, bottom evenly rounded, terminating at a distance from either margin equal to one-sixth the entire length. **Elytra** at base much narrower than the head, and just perceptibly wider than the prothorax; sides strongly divergent posteriorly, feebly arcuate, and much longer than the width at base; together broadly and feebly emarginate posteriorly; suture scarcely one-sixth as long again as the pronotum; surface rather depressed, transversely and feebly impressed just before the middle, the impression extending posteriorly near the external edge of each elytron; coarsely, feebly, closely, and quite evenly punctate, punctures only coalescent posteriorly near the suture, interspaces convex, very narrow, highly polished. **Abdominal** segments decreasing at

first slowly, then more rapidly in width posteriorly, first distinctly wider than the contiguous elytra; surface broadly convex, coarsely, closely, and variolately punctulate; transverse carinae not enspead. **Legs** rather long and slender, dark piecous-brown; first joint of the posterior tarsi four-fifths as long again as the second, second as long as the third and fourth together, fourth very short. Under surface of the abdomen piecous-black, very finely and closely punctulate.

Male.—Posterior edge of the fifth ventral segment just perceptibly bilobed, arms extremely divergent; sixth segment strongly bilobed at apex, emargination twice as wide as deep; seventh segment very narrow, truncate at the apex.

Female.—Sixth segment broadly and triangularly produced; angle very prominent.

Length 2.6–3.0 mm.

Garland, Colorado, 7; Veta Pass, Colorado, 2; British Columbia, 4.

A specimen from British Columbia is singularly deformed by an enlargement of the left eye. The identification of this species is due to Mr. Fauvel, and as it is a somewhat rare European species, its occurrence on the western side of our continent is rather remarkable. In one specimen the apical joint of the left antenna is deeply excavated nearly throughout its entire length and width, as if the surface had been accidentally crushed in. The probable cause of this condition, which is of somewhat frequent occurrence in the species of this genus, may perhaps lie in the internal structure of the terminal joint. The interior fibres of the joint on drying contract, drawing in the weakest portion of the surface in such a way as to leave a deep external concavity; as it is always found on the under side, we must presume that, at this point, the walls of the joint are weakest, or most firmly attached by nerve fibres to the interior tissues. It would be interesting to know whether the condition is ever observed in specimens recently taken.

Subdivision *B*.

Group II.

This group consists of a very limited number of species of peculiar appearance. They are of rather small size, robust, and somewhat strongly depressed; the elytra are large, and the humeral angles prominent; the head is small. The elytral suture is, in all cases, at least one-half longer than the pronotum.

The species which seem worthy of adoption are five in number; they are peculiar to the regions west of the Rocky Mountains, and may be tabulated as follows:—

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Prothorax as wide as, or wider than long.

Legs black throughout; longitudinal elevation of interocular surface evenly convex.

Pronotum having a longitudinal ridge-like elevation at the sides of the canaliculation; body very robust.....58. **costalis**.

Pronotum not ridged; body much more slender.....59. **alveolatus**.

Femora distinctly rufo-fuscous; longitudinal elevation of interocular surface acute; pronotum having very obscure lateral ridges.

60. **ellipticus**.

Prothorax narrower than long.

Sides of pronotum feebly arcuate; prothorax sub-cylindrical, very distinctly narrower than long.....61. **adelops**.

Sides of pronotum strongly arcuate anteriorly; prothorax very slightly narrower than long62. **luctuosus**.

58. **S. costalis** n. sp.—Form very robust. Pubescence fine, close, semi-erect, rather short, piceous-brown, not conspicuous. **Head** robust, small, twice as wide as long; interocular surface more than twice as wide as the eye, nearly flat, equally trilobed by the very distinct sulcations, lobes equally and evenly convex; punctures fine, very even and close, finer in the middle; ocular lines meeting at one length in advance; antennae slightly longer than the width of head, slender, club large, piceous-black; third joint somewhat more than one-third as long again as the fourth, fourth and fifth sub-equal, joints six, seven, and eight sub-equal in length, the latter oval in outline, joints of club robust, last two, slightly wider than the ninth, last joint but slightly longer than wide; maxillary palpi long, piceous-black. **Prothorax** robust, widest distinctly before the middle, where it is nearly five-sixths as wide as the head, and slightly broader than long; sides thence moderately convergent posteriorly and rather strongly sinuate; anterior margin shorter and much more arcuate than the posterior; surface strongly swollen along the sides and at the edges of the canaliculation, giving the appearance of four longitudinal ribs, strongly and transversely impressed just behind the anterior margin; finely, very closely, evenly, though very confusedly and roughly sculptured; canaliculation distinct, deeply impressed, terminating at equal distances from the margins, two-thirds as long as the pronotum. **Elytra** at base much wider than the head; sides very feebly divergent posteriorly, just perceptibly longer than the width at base, distinctly arcuate; together broadly, rather strongly, and triangularly emarginate behind; suture one-half as long again as the pronotum; surface rather broadly and strongly impressed on the suture at the base, very finely, exceedingly closely and irregularly sculptured; punctures almost entirely coalescent in very long and devious channels, with occasional spots where they are confusedly broken up; they generally pursue a longitudinal or oblique direction. **Abdominal** segments very broad, rapidly and arcuately diminishing in width, first nearly as wide as the contiguous elytra; surface shining, feebly convex, rather finely punctulate, more finely so behind; transverse carinae trienspid, middle cusps short and tapering, lateral broad and somewhat rudimentary. **Legs** rather short and slender, piceous-black; first joint of the posterior tarsi three-fifths as long again as the second, as

long as the last, joints two to four uniformly and rather rapidly decreasing in length.

Male.—Fifth ventral segment not measurably modified; sixth segment sinuate at apex, sinus as wide as the apices, and of equal curvature, deep, two and one-half times as wide as deep, evenly rounding at the bottom; seventh segment evenly and feebly emarginate at the tip, which is thickly bristling with short, coarse, setae.

Female.—Sixth segment rather narrow, evenly rounded behind.
Length 3.0–3.1 mm.

Lake Tahoe, Nevada, 4; California, 15.

This species is very robust, and is distinguished by its very large elytra and the singular ridged appearance of the prothorax. The sexual characters seem to vary slightly in degree.

59. *S. alveolatus* n. sp.—Form robust. Pubescence rather short, close, sub-recumbent, fine, plumbeo-cinereous. **Head** small, twice as wide as long; interocular surface nearly flat, slightly more than twice as wide as the eyes; coarsely, very closely, and rather confusedly punctate, especially toward the eyes; longitudinal elevation slightly narrower than the lateral portions, evenly and rather strongly convex; ocular lines meeting at one length in advance; antennae longer than the width of head, black, rather robust, club large; third joint one-third as long again as the fourth, fourth and fifth equal, sixth and seventh shorter, equal in length, the latter thicker and oval, eighth very slightly elongated, as wide as the seventh, subulular, joints of club increasing rapidly in length and thickness, last joint large, acuminate at tip; maxillary palpi moderate in length, piceous-black, first joint piceo-testaceous, third joint very robust. **Prothorax** small, arcuately widening to a point slightly in advance of the middle, where it is very slightly narrower than the head, and slightly broader than long; sides thence moderately convergent posteriorly and nearly straight; anterior margin just perceptibly shorter and much more arcuate than the posterior; surface faintly tuberculate along the sides, feebly and transversely impressed just behind the anterior margin; extremely closely, roughly, but rather evenly punctate; canaliculation rather broad, shallow, impressed, terminating at equal distances from the base and apex, two-thirds as long as the pronotum, sides very slightly swollen. **Elytra** at base much wider than the head; sides very feebly divergent posteriorly, slightly longer than the width at base, nearly straight; together broadly and very feebly emarginate behind; suture two-thirds as long again as the pronotum; surface finely, deeply, very roughly, evenly, and extremely closely punctate; punctures seldom coalescent; lustreless. **Abdominal** segments decreasing uniformly and rapidly in width, first just perceptibly narrower than the contiguous elytra; surface rather feebly convex, finely, evenly, and rather closely punctulate; transverse carinae tricuspid, middle cusps rather short and finely acuminate at tip, lateral merely a confused projection, very broad, and often enclosing a large puncture. **Legs** short and slender, femora and tibiae black above, piceous-black beneath, tarsi piceous-black; first joint of posterior tarsi scarcely one-half

as long again as the second, as long as the fifth, joints two to four uniformly and very gradually decreasing in length. Body winged.

Male.—Unknown.

Female.—Sixth ventral segment rather narrow, rounded behind, just perceptibly and obtusely produced behind in the middle.

Length 2.6 mm.

Lake Tahoe, Nevada, 1.

60. *S. ellipticus* n. sp.—Form robust. Pubescence excessively short, rather sparse, erect, piceo-plumbens, very inconspicuous. Head rather small, very robust, much less than twice as wide as long; interocular surface distinctly more than three times as wide as the eye, nearly flat; longitudinal elevation slightly wider than the lateral portions, evenly and rather strongly convex, rising slightly above the level of the eye; punctures coarse, rather close, evenly distributed; ocular lines meeting at two lengths in advance; eyes very narrow; antennae as long as the width of head, black, rather slender, club moderate; third joint abruptly narrower at the base, one-third longer than the fourth, fourth and fifth equal, sixth slightly longer than the seventh, more slender, eighth slightly shorter, as wide as the seventh, club compact, joints increasing gradually in length, tenth widest; maxillary palpi well developed, black, first joint very slightly paler, piceo-testaceous. Prothorax very robust, widest just before the middle, where it is nearly as wide as the head, and as wide as long; sides thence rather rapidly convergent posteriorly and very feebly sinuate: anterior and posterior margins equal in length, the former slightly the more arcuate; surface rather acutely and longitudinally ridged at a short distance from the canalliculation, margin of canalliculation elevated; transversely impressed immediately behind the apex; punctures small, variform, very closely compacted, irregularly polygonal, interspaces acute; canalliculation rather deeply impressed, terminating at distances from the base and apex equal in length to one-eighth of the pronotum, nearly equal in width throughout, bottom punctate. Elytra at base much wider than the head; sides distinctly divergent posteriorly, longer than the width at base, feebly arcuate; together rounded and rather strongly emarginate in the middle half behind; suture one-half longer than the pronotum; surface impressed feebly along the suture, more broadly so at base, longitudinally and feebly impressed near the humeri; sculpture feeble and very irregular; near the borders of the sutural impression the punctures are very small, feeble, distant, and isolated, interspaces nearly flat and very highly polished; between this and the sides the sculpture consists of a confused network of channels, with the interspaces acute; near the humeri the punctures are distinct and very close, with the interspaces narrow and feebly lustrous. Abdominal segments decreasing uniformly and rapidly in width, first distinctly narrower than the contiguous elytra; surface feebly convex, closely, evenly, and coarsely punctulate, interspaces polished; transverse carinae tricuspid, middle cusps long, rather finely acuminate, prominent, lateral much shorter, broad, and very indefinite. Legs rather short and slender, piceous-black, femora distinctly fuscous beneath toward the base; first joint of the posterior tarsi two-thirds longer than the second, as long as

the last, longer than the next two together, fourth joint narrow, very oblique and thin.

Male.—Posterior edge of the fifth ventral segment very feebly emarginate in its middle sixth, emargination evenly rounded and scarcely measurable, edge of emargination granulose; sixth segment sinuate at apex, sinus narrower than the apices and more acutely rounded, evenly rounded at the bottom, one-half wider than deep; seventh very feebly emarginate at apex.

Female.—Unknown.

Length 3.0 mm.

California, 1.

This very distinct species differs markedly from *costalis* in the structure of the head, and the nature of the punctuation of the interocular surface, which is very much coarser than in that species; there are also many other minor differences.

61. **S. adelpis** n. sp.—Form robust. Pubescence very short, fine, somewhat close, evenly distributed, sub-recumbent, piceo-plumbeous, not conspicuous; on the under surface of the abdomen it is more plentiful, short, and cinereous. **Head** very small, twice as wide as long; interocular surface flat, three times as wide as the eye, equally trilobed by the rounded, rather deep, and conspicuous sulcations; punctures very small, round, very close, and evenly distributed; ocular lines meeting at more than two lengths in advance; antennae rather short, black, slightly longer than the width of head, very robust, club prominent; third joint one-fourth longer than the fourth, fourth and fifth equal, sixth and seventh abruptly much shorter, equal in length, the latter slightly thicker, eighth slightly elongated, thicker than the seventh, nearly evenly elliptical, club rather compact, joints increasing rapidly in length, tenth wider than long and broadest, last as long as the eighth and ninth together; maxillary palpi intense black throughout, rather short and robust, third joint densely clothed with cinereous pubescence. **Prothorax** widest in the middle, where it is nearly seven-eighths as wide as the head, and slightly narrower than long; sides thence extremely feebly convergent posteriorly and nearly straight; anterior margin shorter and much more arcuate than the posterior; surface rather strongly tuberculate along the sides and above, and also along the margins of the canaliculation; transversely and rather strongly impressed just behind the apex; punctures very fine, closely crowded, and rather obscure; between the tuberculiform costae and in the canaliculation the punctures are more distant, with the interspaces very feebly lustrous, elsewhere nearly opaque; canaliculation narrow, fusiform, two-thirds as long as the pronotum, terminating at equal distances from the base and apex, rather deeply impressed. **Elytra** at base one-third wider than the head; sides just perceptibly divergent posteriorly, longer than the width at base, very feebly and nearly evenly arcuate; together feebly emarginate behind; suture one-half longer than the pronotum; surface nearly as in *costalis*, though rather more feebly sculptured. **Abdominal** segments uniformly and very rapidly decreasing in width, first just visibly narrower than the contiguous elytra; surface feebly convex, rather finely, feebly, and closely punctulate; transverse carinae tricuspid,

middle cusps as broad at base as long, rapidly and rather finely acuminate, lateral nearly as long, broad, and confused. **Legs** moderate in length and very slender, black throughout; first four joints of the posterior tarsi decreasing very uniformly and gradually in length, first scarcely one-third longer than the second, two-thirds as long as the last.

Male.—Unknown.

Female.—Sixth ventral segment acutely rounded behind.

Length 3.0 mm.

Northern California, 1.

This species greatly resembles *costalis*, and differs from it in the structure of the prothorax, it being much more cylindrical than in that species and proportionally very much narrower; it also differs notably in the length of the antennae and proportional lengths of the joints, and in the much more plentiful and conspicuous cinereous pubescence of the under surface of the abdomen. The general form is more slender, and the elytra are longer in proportion to their width than in *costalis*.

62. **S. luctuosus** n. sp.—Form robust. Pubescence very short, rather sparse, recumbent, fine, plumbeous. **Head** small, but robust, not twice as wide as long; interocular surface flat, nearly three times as wide as the eye, unequally trilobed by the moderately conspicuous sulcations; intermediate surface rather strongly and evenly convex, somewhat prominent; punctures rather coarse, close, evenly distributed, except in the sulcations, where they are more crowded; ocular lines meeting at slightly more than two lengths in advance; antennae much longer than the width of head, black, slender, club moderate; third joint one-third as long again as the fourth, fourth and fifth equal, sixth and seventh equal in length, the latter thicker, eighth cordate, slightly longer than wide, joints of club all robust, increasing in length, last joint feebly acuminate at tip; maxillary palpi long, piecons-black, first joint dark testaceous. **Prothorax** widest at the middle, where it is four-fifths as wide as the head, and very slightly narrower than long; sides thence moderately convergent posteriorly and slightly sinuate; anterior and posterior margins equal in length, the former rather feebly arcuate, the latter almost straight; surface very faintly uneven; finely, closely, and evenly punctate; punctures sub-variolate and generally irregularly polygonal; canalliculation obscurely outlined, shallow, narrow, beginning before the middle, one-half as long as the pronotum. **Elytra** at base distinctly wider than the head; sides very feebly divergent posteriorly, much longer than the width at base, very feebly arcuate, more strongly so posteriorly; together rather narrowly, subtriangularly, at ! somewhat strongly emarginate behind; suture about one-half as long again as the pronotum; surface very feebly impressed along the suture, and somewhat strongly, unevenly, and longitudinally impressed in the middle of each elytron toward the base, finely, closely, somewhat unevenly punctured; punctures isolated near the suture and the base, interspaces flat and minutely reticulated; coalescent, and closely crowded in the impressed portions. **Abdominal** segments decreasing uniformly and rapidly

in width, first distinctly narrower than the contiguous elytra; surface feebly convex, coarsely, very closely, and evenly punctulate; transverse carinae tricuspid, middle cusps long, becoming finely acicular at tips, lateral broad, short, widening at apex. **Legs** moderately long and slender, black above, piecous-black beneath; first joint of the posterior tarsi twice as long as the second, as long as the fifth, second and third sub-equal, fourth short and oblique, fifth very slender.

Male.—Posterior edge of the fifth ventral segment feebly emarginate in its middle fourth, emargination evenly rounded, twelve to fifteen times as wide as deep, contiguous surface feebly and cylindrically impressed throughout anteriorly; sixth segment sinuate at apex, sinus small, equal in width to the vertices, somewhat more acute in curvature at bottom, about twice as wide as deep.

Female.—Sixth segment rounded behind.

Length 2.9 mm.

California, 2; Lake Tahoe, Nevada, 3; Lake Quesnel, British Columbia, 1.

Subdivision *g*.

Group III.

The distinguishing feature of this small group is the minute size of the species, which enter it, they having 2 mm. as a maximum limit of length. It may be considered unnatural to constitute a group upon the quality of size alone, but as this serves to identify them readily, it is adopted for convenience.

The following table shows the arrangement assumed for our three species:—

Transverse carinae of abdomen not cusped.

Head as wide as the elytra. Lake Superior to Massachusetts.

63. **pusio**.

Head narrower than the elytra; more robust; elytra relatively longer and more rectangular. British Columbia.....

Transverse carinae tricuspid: form much more slender...64. **nanulus**.

.....65. **atomarius**.

63. **S. pusio** n. sp. (Schwarz MS.).—Form robust. Pubescence short, fine, sparse, setiform, cinereous. **Head** robust, twice as wide as long; interocular surface nearly flat, more than twice as wide as the eye, somewhat finely, very closely, and evenly punctate; punctures closely crowded, slightly polygonal in outline; longitudinal elevation narrower than the lateral portions, strongly and evenly convex, prominent; ocular lines meeting at one length in advance; antennae scarcely as long as the width of head, rather robust, piecous-black, club prominent; third joint one-fourth as long again as the fourth, joints three to five uniformly decreasing in length, six and seven oval, eighth globular, narrower than the seventh, joints nine and ten broader than long, last as wide as long, feebly acuminate; maxillary palpi

picuous, translucent, first joint and base of the second rufo-testaceous. **Prothorax** robust, widest at the middle, where it is four-fifths as wide as the head, and slightly broader than long; sides thence rather strongly convergent posteriorly and feebly sinuate; anterior margin slightly longer and more arcuate than the posterior; surface slightly and obliquely undulated at the sides above, rather coarsely, very closely, somewhat irregularly and variolately punctate; canaliculation almost entirely absent, only faintly seen as a feeble erosion at the middle, and close to the base. **Elytra** at base as wide as the head, sides moderately divergent posteriorly, very slightly longer than the width at base, almost straight; together very broadly, triangularly and moderately emarginate posteriorly; suture nearly one-fourth as long again as the pronotum; surface nearly evenly and moderately convex, somewhat coarsely, very closely, rather deeply, and evenly punctate. **Abdominal** segments decreasing arcuately in width, first as wide as the contiguous elytra; surface feebly convex, coarsely and very closely punctulate; transverse carinae not cusped, finely and unevenly undulated. **Legs** short and stout, dark picuous-brown above, paler and rufo-picuous beneath; first joint of posterior tarsi four-fifths as long again as the second, as long as the last, second very slightly longer than the third.

Male.—Posterior edge of the fifth ventral segment entire; sixth segment broadly bilobed at apex, cusp very slightly rounded and very short, arms widely diverging.

Female.—Sixth ventral segment broadly truncate at tip, truncation slightly arcuate.

Length 1.8-1.9 mm.

Cambridge, Massachusetts, 6; Canada, 2; Lake Superior, 2.

The parasite of this species is very large, being nearly as large as the eye; its contour is nearly circular; the surface is very convex and most highly polished; it is pale rufo-testaceous in color, and the abdomen is provided with very long cinereous setae, which project as a fringe far behind the body; two symmetrically placed, pigmental deposits, situated near the anterior border, are presumably the eyes. The type specimen bears two of these huge parasites, which, if we should magnify the beetle to the size of the human body, would be six inches long.

This small species has a very wide range in its geographical distribution; it appears to be quite rare, however, in all its localities. It varies in the color of the palpi and length of the first joint of the posterior tarsi, so that I at first described the specimen from Canada and Lake Superior as distinct species, but afterwards concluded to unite them, because of the insufficient material at hand.

64. **S. nanulus** n. sp.—Form moderately robust. Pubescence sparse, fine, moderately long, semi-erect, pale flavo-testaceous. **Head** moderate, robust, scarcely twice as wide as long; interocular surface feebly convex,

twice as wide as the eye, equally trilobed by the very feeble sulcations; intermediate surface very acutely and strongly convex; punctures small, close, isolated, evenly distributed; ocular lines meeting at less than one length in advance; antennae shorter than the width of head, rather robust, black, club distinct; third and fourth joints equal, fifth and sixth shorter, equal, eighth but very slightly shorter and rather less robust than the seventh, joints of club dark piceous-brown, increasing rapidly in length and thickness, very sparsely pubescent; maxillary palpi moderate, piceous-black, first joint dark piceo-testaceous, third somewhat robust, compressed. **Prothorax** very robust, arenately and very rapidly widening to the middle, where it is five-sixths as wide as the head, and distinctly wider than long; sides thence rather rapidly convergent and very feebly arcuate; anterior and posterior margins nearly equal in length and curvature; surface very feebly and obliquely tuberculate near the basal angles, just perceptibly and transversely impressed immediately behind the anterior margin; very finely, rather feebly, very closely, evenly, but somewhat confusedly punctate, interspaces very indistinctly granulate. **Elytra** at base very slightly wider than the head; sides feebly divergent posteriorly, distinctly longer than the width at base, and feebly arcuate; together rather narrowly, roundly, and distinctly emarginate behind; suture one-third as long again as the pronotum; surface rather depressed and even; moderately coarsely, very closely, deeply, and evenly punctate, interspaces narrow and highly polished, very feebly reticulated. **Abdominal** segments decreasing rapidly and slightly arcuately in width, first as wide as the contiguous elytra; surface broad, feebly convex; coarsely, very closely, and evenly punctulate, becoming much more finely so toward the tip; transverse carinae not cusped, finely and acutely dentate, intervals evenly rounded. **Legs** short, slender, black above, dark piceous-brown beneath; first joint of posterior tarsi four-fifths as long again as the second, equal in length to the fifth, second, third, and fourth joints uniformly and gradually decreasing in length. Under surface of the abdomen polished, black, rather sparsely and somewhat coarsely punctulate.

Male.—Fifth ventral segment not perceptibly modified; sixth sinuate at the tip, sinus occupying nearly the entire segmental apex, evenly rounded, and about eight times as wide as deep.

Female.—Unknown.

Length 1.9 mm.

British Columbia, 2.

The observation concerning the sexual modification of the sixth ventral segment is open to a little doubt, owing to the damaged condition of the type specimen.

65. **S. atomarius** n. sp.—Form slender. Pubescence almost completely invisible, except toward the borders and tip of the abdomen, where it is exceedingly short, setiform, sub-recumbent, cinereous, and rather sparse. **Head** moderate, twice as wide as long; interocular surface not twice as wide as the eye, flat; equally trilobed by the very indistinct sulcations; punctures coarse, deep, very closely approximate, evenly distributed; ocular lines meeting at less than one length in advance; antennae very slightly longe

than the width of head, black, slender, club distinct; joints three, four, and five decreasing very uniformly in length, but with excessive slowness, sixth and seventh abruptly shorter, equal in length, the latter much thicker, eighth slightly broader than long, last joint as long as the ninth and tenth together, much thicker; maxillary palpi rather short and slender, dark reddish-black throughout. **Prothorax** widest at the middle, where it is three-fourths as wide as the head, and very slightly narrower than long; sides thence moderately convergent posteriorly and nearly straight; anterior margin slightly shorter and more arcuate than the posterior; surface nearly evenly convex, finely, deeply, very closely, evenly, but somewhat confusedly punctate, interspaces distinctly granulate; canaliculation extremely narrow and indistinct, beginning at the middle and extending nearly to the base. **Elytra** at base as wide as the head; sides very feebly divergent posteriorly, very slightly longer than the width at base, very feebly arcuate; broadly and somewhat feebly emarginate behind; suture just perceptibly longer than the pronotum; surface evenly and moderately convex, rather coarsely, very closely, and somewhat confusedly punctate, interspaces coarsely granulate. **First three abdominal segments** sub-equal in width, as wide as the contiguous elytra; surface not strongly convex, closely, evenly, and coarsely punctulate; transverse carinae unispid, cusp very long, strong, becoming finely acuminate; there are also slight traces of lateral, rudimentary cusps on some of the segments. **Legs** moderate in length and rather slender, dark rufous above, paler beneath, tarsi darker; first joint of the posterior tarsi one-half as long again as the second, three-fifths as long as the last, joints two to four uniformly and very gradually decreasing in length.

Male.—Posterior edge of the fifth ventral segment very feebly emarginate in its middle fourth, emargination evenly rounded and just perceptible, contiguous surface feebly flattened; sixth segment sinuate at apex, sinus as broad as the apices and equal to them in curvature, evenly rounded, somewhat more than three times as wide as deep.

Female.—Sixth segment evenly rounded behind.

Length 1.7 mm.

Detroit, Michigan, 1; Cambridge, Massachusetts, 13.

The slender graceful form of this species, the most minute of the genus, will readily distinguish it from the two preceding ones.

Subdivision γ .

Prothorax not canaliculated. Elytral sculpture as in subdivision β .

In order to tell whether the prothorax is canaliculated or not, the insect should be held in such a way that the light may pass very obliquely or tangentially across the highest point of the pronotum, and perpendicularly to the longitudinal axis. If there be a deeply impressed or excavated channel, it will, of course, be evident without this test, but if, when held in the position above described, there be no sign of even a narrow longitudinal shade, the pronotum will be

considered not canalculated; on the contrary, however, if there be a faint shadow extending along the middle of the disk, giving a decided suspicion of a feeble impression in that direction, the student should consult the tables given under subdivision β .

This minuteness of detail is rendered necessary, for the reason that there is no natural division of species according to this character, and forms gradually blend from one subdivision into the other, although the character is nearly constant in individuals of the same species.

The following tabular arrangement may be adopted at present:—

Transverse carinae of abdomen 4-cuspid.

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

Large species, 4.0 mm. in length.

First joint of the posterior tarsi one-third longer than the second.

66. **virginiae.**

First joint of the posterior tarsi three-fourths longer than the second.

67. **texasus.**

Small species, 2.8 mm. in length.....68. **venustus.**

Elytral suture longer than the pronotum.

Abdominal segments as broad as the contiguous elytra; sides parallel and continuous with those of the elytra.....69. **occidentalis.**

Abdominal segments narrower than the contiguous elytra; sides more or less convergent posteriorly.

Pubescence of abdomen long, fine, sparse, and recumbent, rather conspicuous; surface of elytra very irregularly and conspicuously channeled.....70. **pacificus.**

Pubescence finer, shorter, not at all prominent.

Sides of prothorax undulated anteriorly.....71. **obstrusus.**

Sides of prothorax more or less strongly and evenly aremate anteriorly.

Longitudinal elevation of interocular surface distinct, somewhat conspicuous.

Larger species, 3.4 mm. in length; head small.

Prothorax widest distinctly in advance of the middle. Arizona.

72. **arizonæ.**

Prothorax widest slightly behind the middle. Massachusetts.

73. **integer.**

Smaller species, 2.8 mm. Head large. Florida.

74. **floridanus.**

Longitudinal elevation of interocular surface almost obsolete, broadly and very feebly convex.....75. **colonus.**

Transverse carinae of abdomen tricuspid.

Elytral suture in length equal to or shorter than the pronotum; head much wider than the elytra.

Antennal joints three, four, and five uniformly decreasing in length; legs pale.....76. **mammops.**

Antennal joints four and five equal in length; form more robust and more convex; punctation much coarser, deeper, and more distinct; legs almost black.....77. **gravidus.**

Elytral suture much longer than the pronotum; head much narrower.

Prothorax distinctly longer than wide78. **animatus.**

Prothorax as wide as long; sides very strongly and nearly evenly arcuate79. **tunicollis.**

Transverse carinae of abdomen not cusped.

Prothorax having throughout its basal half a narrow, elevated, longitudinal carina. Lake Superior.....80. **carinicollis.**

Prothorax without carina. Colorado.....81. **insignis.**

66. **S. virginiae** n. sp.—Form rather robust, sides parallel. Pubescence rather long, coarse, moderately abundant, semi-erect, pale fulvous on the abdomen, cinereous on the remainder of the upper surface. **Head** robust, rather large, twice as wide as long; interocular surface distinctly depressed, barely twice as wide as the eye; equally trilobed by the sulcations, which are rather deep and prominent; intermediate surface evenly and strongly convex; punctures deep, round, evenly distributed and moderately close; interspaces nearly one-half as wide as the punctures, somewhat convex, finely reticulated and feebly lustrous; ocular lines meeting at one and one-half lengths in advance; second joint of antennae longer and more slender than the first; maxillary palpi slender, third joint picous-black, densely clothed with short cinereous pubescence, scarcely longer than the second, first and second joints very dark picco-testaceous, paler at their distal extremities. **Prothorax** large, widest slightly before the middle, where it is more than five-sixths as wide as the head, and one-sixth narrower than long; sides thence very moderately convergent posteriorly and strongly sinuate; anterior margin slightly longer and more arcuate than the posterior; surface strongly tuberculate at a short distance from each basal angle; rather finely, deeply, very closely, and extremely confusedly punctate, interspaces very feebly lustrous. **Elytra** at base slightly narrower than the head; sides very strongly divergent posteriorly, as long as the width at base, very strongly and evenly areolate; together very broadly, roundly, and strongly emarginate behind; suture equal in length to the pronotum; surface convex, feebly impressed on the suture at the base, somewhat coarsely and closely, deeply, and very irregularly punctured and channeled; interspaces minutely granulose or scabrous, very feebly lustrous. **Abdominal** segments decreasing uniformly and just perceptibly in width, first distinctly narrower than the contiguous elytra; surface coarsely, feebly, sub-variately punctulate, punctures very close toward the borders, less crowded toward the median line, interspaces shining; transverse carinae arcuate posteriorly, 4-cuspid, cusps all small, coarsely acuminate, somewhat rudimentary. **Legs** moderate, slender, picous-black above, dark picco-fuscous beneath and toward the tips of the tibiae, tarsi slender; first joint of the posterior tarsi scarcely more than one-third longer than the second, slightly shorter than the fifth, second somewhat shorter than the third and fourth together.

Male.—Unknown.

Female.—Sixth ventral segment very broad and evenly rounded behind.

Length 4.0 mm.

Pennington Gap, Virginia, 1.

This fine species is very distinct by reason of the peculiar elytral structure; the coarse pubescence and generally scabrous appearance, recall very forcibly the structure of *stygius* Say.

67. *S. texanus* n. sp.—Form robust, sides parallel. Pubescence moderately long, sparse, coarse, semi-erect, pale fulvo-sinereous. Head moderate, twice as wide as long; interocular surface rather depressed, not twice as wide as the eye, equally trilobed by the rounded sulcations; intermediate surface moderately convex, punctures coarse, isolated, evenly distributed, close; ocular lines meeting at about two-thirds of a length in advance; second joint of antennae distinctly shorter and narrower than the first, third one-half as long again as the second, all piceous-brown. Prothorax uniformly and arcuately widening to a point two-thirds of the length posteriorly, where it is five-sixths as wide as the head and distinctly narrower than long; sides thence moderately convergent, short, and distinctly sinuate; anterior margin much shorter and very much more arcuate than the posterior; surface feebly tuberculate near the basal angles, and very feebly swollen near the apical angles, also very feebly and transversely impressed just behind the anterior margin, rather finely, very closely, and extremely irregularly punctured and channeled. Elytra at base slightly narrower than the head; sides feebly divergent posteriorly, about equal in length to the width at base, strongly arcuate; together very broadly, roundly, and rather strongly emarginate behind; suture very slightly shorter than the pronotum; surface very feebly and narrowly impressed along the suture toward the base; coarsely, in general closely and very irregularly punctured and channeled; near the suture and in front of the centre the channels are very close and outwardly oblique, behind the centre inwardly oblique; the punctures are usually isolated by their own widths toward the outer apical angles, and coarser, distinct, but polygonally compressed toward the bases, interspaces polished. Abdominal segments decreasing uniformly in width and with extreme slowness, first very slightly narrower than the contiguous elytra; sides nearly parallel; surface moderately convex, coarsely, rather closely, and evenly punctate; transverse carinae 4-enspid, cusps equal, short and rudimentary on the first two segments, longer and more acicular on the third and fourth. Legs rather short and slender, dark piceous-brown above, rather paler rufopiceous beneath; first joint of the posterior tarsi three-fourths as long again as the second, very slightly shorter than the last, second joint nearly one-half as long again as the third, fourth short, thin, and oblique, fifth much narrower at base than at apex.

Male.—Unknown.

Female.—Sixth ventral segment abruptly much narrower than the fifth, evenly rounded behind.

Length 4.0 mm.

Columbus, Texas, 1; Western States (locality unknown), 1.

The antennae and palpi are missing.

This species greatly resembles *virginia*, but differs from that species in the somewhat longer elytra, which are much more narrowly emar-

ginate behind; in its much more robust form, and in the more sparse and less conspicuous pubescence.

68. **S. venustus** n. sp.—Form slender. Pubescence short, semi-erect, fine, cinereous, very sparse, except at the sides and toward the tip of the abdomen, where it is slightly more plentiful. **Head** small but robust, scarcely twice as wide as long; interocular surface nearly flat, very slightly more than twice as wide as the eye; equally trilobed by the rather feeble longitudinal sulcations; intermediate surface very feebly and evenly convex; punctures extremely coarse, moderately close, deep, rounded, and evenly distributed; interspaces narrow, very convex, and very highly polished; ocular lines meeting at about one and two-thirds lengths in advance; antennae longer than the width of head, dark piecous-brown, nearly black at base, slender, club distinct; third joint one-fourth as long again as the fourth, fourth and fifth equal, seventh thicker and very slightly shorter than the sixth, eighth distinctly elongate, oval, thicker than the seventh, joints of club increasing uniformly in length, last two equal in thickness, last joint acminate at tip; maxillary palpi slender, dark piecous-brown throughout. **Prothorax** widest slightly behind the middle, where it is nearly four-fifths as wide as the head, and about one-sixth narrower than long; sides thence feebly convergent posteriorly, sinuate; sides undulate throughout their length; anterior margin slightly shorter and much more arcuate than the posterior; surface rather feebly and longitudinally tuberculate near the basal angles; punctures close, unevenly distributed, coarse, impressed, somewhat irregular in outline; interspaces highly polished, moderately convex. **Elytra** at base about as wide as the head; sides moderately divergent posteriorly, slightly longer than the width at base, almost straight; together broadly, somewhat angularly, and rather strongly emarginate behind; suture equal in length to the pronotum; surface somewhat depressed, feebly and narrowly impressed along the suture; outside of the sutural impressed area the punctures are very feebly impressed, somewhat distant, nearly evenly distributed, seldom coalescent, interspaces feebly convex and very highly polished; within the impressed area the surface is rather closely and confusedly channeled. **Abdominal** segments decreasing uniformly and extremely gradually in width, first as wide as the contiguous elytra; surface highly polished, moderately convex, finely and very distantly punctulate along the middle, more closely so toward the borders; transverse carinae 4-cuspid, cusps equidistant, equal in length, long, very finely aciculate, rather prominent. **Legs** short and slender, black, tibiae and tarsi piecous-black beneath; first joint of the posterior tarsi three-fourths as long again as the second, very much shorter than the fifth, joints two to four uniformly and rather rapidly decreasing in length.

Male.—Fifth ventral segment not modified; sixth very broad at apex, broadly and feebly sinuate, sinus and apices about equal in width and curvature, sinus eight times as wide as deep.

Female.—Unknown.

Length 2.8 mm.

Locality not given; marked 558 (Schwarz).

In this form the elytral sculpture differs from any yet examined, and it cannot fail to be readily distinguished. The eyes are very pale; the explanation of this condition, which appears to be more or less specific, is somewhat obscure.

69. ***S. occidentalis*** n. sp. (Crotch MS.).—Form moderately robust; sides nearly parallel. Pubescence moderately short, rather sparse, fine, sub-recumbent, setiform, and cinereous. **Head** moderate, slightly more than twice as wide as long; interocular surface very feebly convex, more than twice as wide as the eye; rather finely, closely, and evenly punctate, punctures rounded; sulcations broadly rounded, feeble; intermediate surface broader than the lateral portions, evenly and moderately convex; ocular lines meeting at one length in advance; antennae as long as the width of head, very moderately robust, dark piceous-brown, basal joint black, club moderate; third joint scarcely more than one-fifth as long again as the fourth, fourth and fifth equal, sixth and seventh shorter, equal in length, the latter the more robust, eighth one-half longer than wide, joints of club increasing very gradually in length, the last two thicker and of equal width; maxillary palpi slender, piceous-brown, slightly paler toward the base. **Prothorax** arcuately and gradually widening to a point well behind the middle, where it is five-sixths as wide as the head and distinctly narrower than long; sides thence rather rapidly convergent posteriorly and strongly sinuate; anterior margin very slightly shorter and much more arcuate than the posterior; surface finely, generally closely, and very irregularly punctate; punctures isolated and circular in outline near the middle, closely crowded and transversely coalescent near the base; rather strongly and minutely tuberculate near the basal angles; along the middle toward the base, there is an arrangement of punctures somewhat resembling a canaliculation. **Elytra** at base as wide as the head; sides rather strongly divergent posteriorly, slightly longer than the width at base, feebly arcuate, most strongly so behind; together broadly, roundly, and distinctly emarginate behind; suture very slightly longer than the pronotum; surface very feebly impressed along the suture toward the base, rather finely, very closely, deeply, and irregularly punctured and channeled, channels generally arcuately arranged near the suture, more or less convergent toward the inner apical angles. **Abdominal** segments decreasing uniformly, though just perceptibly, in width, first very slightly wider than the contiguous elytra; surface very broad and feebly convex, finely, very feebly, somewhat distantly and irregularly punctulate; transverse carinae 4-cuspid, cusps nearly equal in length, rather short, finely aciculate, widely separated. **Legs** moderately short and slender, black above, very dark piceous-brown beneath; first joint of the posterior tarsi very slightly longer than the second, shorter than the last, second and third joints sub-equal; tarsi robust.

Male.—Fifth abdominal segment not modified; sixth broadly and deeply sinuate at apex, sinus somewhat broader than the apices, more acutely rounded at the bottom than at the sides, nearly five times as wide as deep; seventh segment narrow at tip, where it is feebly and very evenly emarginate.

Female.—Sixth ventral segment very broadly and evenly rounded behind. Length 3.0 mm.

Lake Quesnel, British Columbia, 17.

This species is characterized by a very broad abdomen; the first joint of the hind tarsi seems to be slightly variable in length.

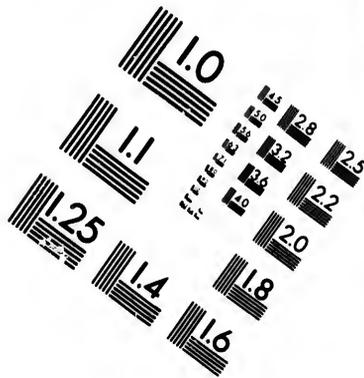
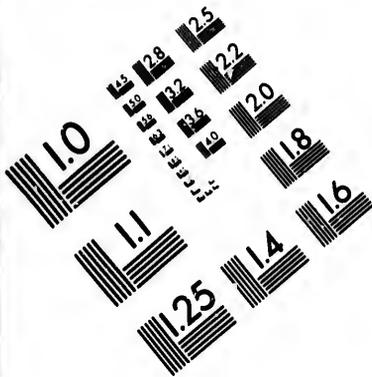
70. ***S. pacificus*** n. sp. (Crotch MS.).—Form moderately slender. Pubescence long, fine, rather sparse on the prothorax and elytra, dense toward the sides and vertex of the abdomen, sub-recumbent, pale flavo-cinereous. Head small, twice as wide as long; interocular surface flat, slightly more than twice as wide as the eye; equally trilobed by the rounded but distinct sulcations; intermediate surface evenly and rather strongly convex; punctures deeply impressed, distant, and rather evenly distributed, slightly closer toward the eyes; interspaces feebly convex and very highly polished; ocular lines meeting at somewhat less than one length in advance; antennae slightly longer than the width of head, pale piecous-brown, first joint darker, slender, club distinct; third joint one-third as long again as the fourth, fourth and fifth equal, sixth longer and much less robust than the seventh, eighth slightly more robust than the seventh, perceptibly elongated, oval, joints of club increasing slightly in length, nearly of equal thickness; maxillary palpi piecous-black, first joint dark pieco-testaceous. Prothorax arcuately and very gradually widening to a point slightly behind the middle, where it is five-sixths as wide as the head and one-sixth narrower than long; sides thence very feebly convergent and distinctly sinuate; anterior and posterior margins equal in length, the former slightly the more arcuate; surface rather coarsely, closely, and irregularly punctate, punctures rounded, impressed, and often confluent near the margins, rather distant in the middle, interspaces highly polished. Elytra at base as wide as the head; sides moderately divergent posteriorly, slightly longer than the width at base, and rather strongly arcuate; together broadly and very feebly emarginate behind; suture one-fifth as long again as the pronotum; surface convex, just perceptibly and narrowly impressed along the suture toward the base, with a very feeble impression just behind and exterior to the centre of each elytron, extremely irregularly, confusedly, coarsely, rather closely punctured and channeled. Abdominal segments decreasing uniformly and rather gradually in width, first just perceptibly narrower than the contiguous elytra; surface strongly convex, highly polished, very finely, distantly, and evenly punctulate; transverse carinae 4-cuspid, cusps equal in length, rather short, becoming aciculate toward tips, middle ones more distant than the lateral. Legs rather short and slender, piecous-black, under surface of tarsi slightly paler; first joint of posterior tarsi four-fifths as long again as the second, slightly shorter than the last, second and third sub-equal.

Male.—Sixth ventral segment very broadly sinuate at apex, sinus much broader than the apices, and of slightly more feeble curvature, more arcuately rounded at the bottom than along the sides, from six to seven times as wide as deep.

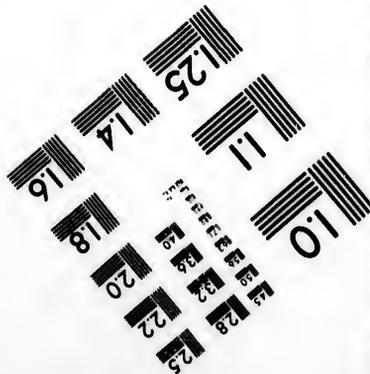
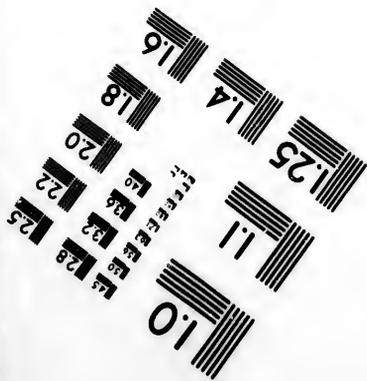
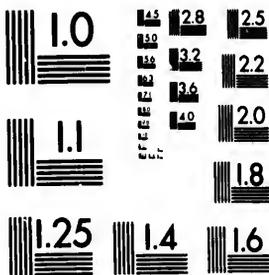
Female.—Sixth segment rather broadly and unevenly rounded behind.

Length 2.6–3.0 mm.

Los Angeles, California, 10.



**IMAGE EVALUATION
TEST TARGET (MT-3)**



14 12.8 12.5
132 22
20

10

The long pubescence, highly polished surface, and remarkably coarse and irregular sculpture of the elytra, will at once distinguish this species.

71. **S. obstrusus** n. sp.—Form rather slender. Pubescence rather short, sparse, somewhat coarse, sub-recumbent, cinereous. **Head** small and robust, scarcely twice as wide as long; interocular surface nearly twice as wide as the eye, flat; longitudinal sulcations very feeble; intermediate surface slightly wider than the lateral portions, very feebly and evenly convex, summit very narrowly impunctate; punctures coarse, very closely crowded and somewhat polygonal in outline; ocular lines meeting at one length in advance; antennae much longer than the width of head, basal joint black, remainder rather pale piceous-brown, slender, club distinct; third joint one-fourth as long again as the fourth, fourth and fifth equal, sixth and seventh joints much shorter, equal in length, the latter much more robust, clubbed, eighth shorter and much more robust than the seventh, slightly broader than long, sub-triangular, joints of club nearly equal in width, slightly increasing in length, ninth and tenth very slightly broader than long; maxillary palpi moderate, first joint rather pale piceo-testaceous, second slightly darker, piceous-brown, third darker, nearly piceous-black. **Prothorax** widest slightly before the middle, where it is five-sixths as wide as the head and one-sixth narrower than long; sides thence feebly convergent posteriorly and distinctly sinuate, very slightly convergent anteriorly and feebly sinuate; anterior angles rounded; anterior margin longer than the posterior, equally arcuate; surface distinctly and longitudinally tuberculate near the basal angles, broadly and very feebly swollen about the centre of the pronotum, punctures moderate in size, variform, very closely crowded, deep, smaller, and more crowded near the base, larger and more isolated near the middle; interspaces narrow, very convex, polished. **Elytra** at base as wide as the head; sides rather feebly divergent posteriorly, longer than the width at base, rather strongly arcuate; together broadly, somewhat angularly and deeply emarginate behind; suture distinctly longer than the pronotum; surface rather feebly impressed on the suture toward the base, and also near the humeral angles, rather coarsely and feebly, closely and exceedingly irregularly punctured and channeled; interspaces narrow, very convex, and shining. **Abdominal** segments decreasing uniformly and exceedingly gradually in width, first slightly narrower than the contiguous elytra; surface rather sparsely, finely, and evenly punctulate; transverse carinae 4-cuspid, broadly arcuate, cusps very small, equal in length and equidistant, acuminate at tip, somewhat rudimentary. **Legs** moderate, slender, piceous-black; first joint of posterior tarsi equal in length to the width of the mentum at base.

Male.—Fifth ventral segment just perceptibly and roundly emarginate in the middle, contiguous surface without trace of impression or flattening; sixth segment broadly sinuate at tip, sinns broader and more feebly rounded than the apices, evenly rounded throughout, nearly six times as wide as deep; seventh narrow, transversely truncate at tip, lateral setae well developed.

Female.—Unknown.

Length 3.1 mm.

New York, 1; Cape May, New Jersey, 1.

The type is, in rather poor condition and lacks the posterior tarsi, with exception of the first joint; this I have compared with the organ which, in my opinion, would best serve as a standard.

This specimen was received with Mr. Fauvel's label, as *cineruscens* Er., and, associated with it were numerous other specimens, which proved to be *stygius* Say. After carefully studying Erichson's rather short description of *cineruscens*, I am forced to the conclusion that the two species are distinct, more especially from the following statements which are quoted in the words of that author:—

“Antennae brevisculae, articulo tertio quarto vix longiore, nigrae. Palpi nigri. Elytra thorace paulo longiora, dorso antico medio levissime torosa, densius profunde punctata, interstitiis planis.”

The situation of the sides of the prothorax in front of the middle is a character very seldom seen in the genus.

Obstrusus somewhat resembles *stygius* Say.

72. *S. arizonæ* n. sp. (Crotch MS.).—Form moderately robust. Pubescence rather long, fine, somewhat close, sub-recumbent, very pale flavo-cinereous. Head robust, rather small, not twice as wide as long; interocular surface slightly more than twice as wide as the eye, nearly flat; equally trilobed by the longitudinal sulcations, which are rounded and distinct; surfaces evenly, moderately, and equally convex; punctures somewhat coarse, close, rather evenly distributed, interspaces narrow, nearly flat, highly polished; ocular lines meeting at nearly two lengths in advance; antennae slightly longer than the width of head, slender, piceous-brown, club distinct; third and fourth joints sub equal, fifth slightly shorter, sixth slightly shorter than the fifth and distinctly longer than the seventh, joints three, four, and five rather abruptly enlarged at the distal extremities, joints of club of nearly equal size; outer joints densely and coarsely pubescent; maxillary palpi very robust throughout, dark piceous-brown, basal joint piceo-testaceous. Prothorax evenly, gradually, and arcuately increasing in width to a point slightly before the middle, where it is five-sixths as wide as the head and distinctly narrower than long; sides thence very gradually convergent posteriorly and strongly sinuate; anterior margin very slightly shorter and much more arcuate than the posterior; surface very feebly tuberculate near the basal angles, transversely and feebly impressed just behind the apex; finely, closely, rather irregularly, and confusedly punctate; interspaces very narrow, polished. Elytra at base distinctly wider than the head; sides rather feebly divergent posteriorly, distinctly longer than the width at base, feebly arcuate, more strongly so toward the apices; together broadly, roundly, and feebly emarginate behind; suture more than one-third longer than the pronotum; surface very feebly, rather coarsely, very closely, and extremely irregularly punctured and channeled; interspaces narrow, very convex, highly polished. Abdominal segments decreasing uniformly and almost imperceptibly in width, first much narrower than

the contiguous elytra; surface highly polished, finely punctulate; punctures deeply impressed, much closer toward the borders; interspaces convex; transverse carinae arcuate behind, 4-cuspid, middle cusps finely acicular, lateral shorter and broader, acuminate. **Legs** rather short and stout, piceous-black; first joint of the posterior tarsi nearly one-half longer than the second, second and third sub-equal.

Male.—Fifth ventral segment just perceptibly emarginate in the middle at apex; sixth very broadly sinuate at apex, sinus occupying nearly the entire extent of the segmental apex, more acutely rounded at the bottom than along the sides, between five and six times as wide as deep.

Female.—Sixth segment narrow, broadly and evenly rounded behind.
Length 3.4–4.0 mm.

Arizona, 17; Columbus, Texas, 1.

This species may be easily distinguished from *incultus* by its much more robust form. The elytra in the female are relatively much shorter than in the male, and the pronotum sometimes bears traces of a long canaliculation. The anterior margin of the prothorax in the type bears slight evidences of a small median sinuosity.

73. **S. integer** n. sp.—Form very moderately robust. Pubescence very short, extremely sparse, semi-erect, setiform, fine, and cinereous. **Head** moderate, twice as wide as long; interocular surface feebly convex, slightly less than twice as wide as the eye; equally trilobed by the very feeble, rounded sulcations; intermediate surface feebly and evenly convex; punctures very coarse, deep, rounded, moderately close, more isolated in the middle; interspaces nearly flat, shining; ocular lines meeting at one length in advance; eyes hemispherical; first joint of antennae black, second dark piceous, equal in length; maxillary palpi dark piceous-brown, first joint rather pale piceo-testaceous. **Prothorax** widest slightly behind the middle, where it is four-fifths as wide as the head, and distinctly narrower than long; sides thence moderately convergent posteriorly, and just perceptibly sinuate; anterior and posterior margins nearly equal in length and curvature; surface very feebly and minutely tuberculate near the basal angles, very broadly and feebly swollen in the region about the middle of the pronotum, punctures rounded, deep, variable in size, very close, and in some portions rather confused. **Elytra** at base as wide as or just perceptibly wider than the head; sides rather feebly divergent posteriorly, longer than the width at base, moderately arcuate; together broadly, evenly, and somewhat strongly emarginate behind; suture one-fourth as long again as the pronotum; surface deeply impressed on the suture at the base; rather coarsely, very closely, deeply, and very irregularly punctured and channeled. **Abdominal** segments decreasing uniformly and very gradually in width, first as wide as the contiguous elytra; surface broadly convex, rather coarsely and feebly punctulate; transverse carina 4-cuspid, cusps nearly equal in length, moderately long and finely acuminate, lateral often double, or strongly and widely bifurcate, at other places broad and gradually becoming amalgamated with the general surface of the segment. **Legs** moderate

in length, rather slender, piceous-black; first joint of the posterior tarsi short, scarcely more than one-third as long again as the second, much shorter than the last, joints two to four uniformly and rather rapidly decreasing in length.

Male.—Unknown.

Female.—Sixth ventral segment very evenly rounded behind throughout.

Length 3.4 mm.

Winchester, Massachusetts, 1.

The type lacks the antennae, with exception of the basal joints.

The species is broader and much more robust, and with a much narrower head than those to which it is more closely allied; the elytra are also proportionally longer.

74. *S. floridanus* n. sp.—Form rather slender. Pubescence rather short, sparse, coarse, semi-erect, cinereous. **Head** robust, distinctly less than twice as wide as long; interocular surface nearly flat, twice as wide as the eye; longitudinal elevation narrow, feebly convex; punctures rather coarse, very close, deep, somewhat irregular in outline; ocular lines meeting at one length in advance; antennae slender, much longer than the width of head, piceous-black, club slender; joints three, four, and five decreasing uniformly and somewhat gradually in length, joints of club of nearly equal thickness; maxillary palpi long, slender, piceous-black, first joint translucent, much paler, and piceo-testaceous. **Prothorax** widest slightly before the middle, where it is four-fifths as wide as the head, and nearly one-sixth narrower than long; anterior margin distinctly longer than the posterior, equally arcuate; surface transversely impressed just behind the anterior margin; coarsely, closely, deeply, and irregularly punctate; punctures generally confusedly coalescent; interspaces very narrow, convex, and very highly polished. **Elytra** at the base as wide as the head; sides very feebly divergent posteriorly, much longer than the width at base, feebly arcuate; together broadly, angularly, and strongly emarginate behind; suture about one-tenth as long again as the pronotum; surface strongly and narrowly impressed on the suture toward the base; coarsely, deeply, very closely, and extremely irregularly punctured and channeled, channels generally perpendicular to the suture in the impressed area, and convergent toward the inner apical angles behind; punctures occasionally isolated along the borders of the impressed area. **Abdominal** segments decreasing very uniformly and gradually in width, first somewhat narrower than the contiguous elytra; surface highly polished, finely, and irregularly, but generally distantly punctulate; punctures very sparse along the middle; transverse carinae 4-cuspid, cusps moderate in length, aciculate. **Legs** short and slender, piceous-black; first joint of the posterior tarsi one-half as long again as the second, as long as the second and third together, slightly shorter than the last, joints two to four uniformly and very rapidly decreasing in length.

Male.—Posterior edge of the fifth ventral segment just perceptibly and roundly emarginate in its middle fourth, contiguous surface exhibiting but

slight tendency to flattening; sixth segment very broadly sinuate at apex, sinus occupying the entire width of the segment, feebly and evenly rounded throughout, about twelve times as wide as deep.

Female.—Unknown.

Length 2.8 mm.

Cedar Keys, Florida, 1.

The second joint of the tarsus is unusually long.

75. **S. colonus** Erichs.—Form rather slender. Pubescence sparse, a little more dense at the sides and toward the vertex of the abdomen. **Head** robust, less than twice as wide as long; interocular surface flat, distinctly less than twice as wide as the eye; punctures very close, small, evenly distributed; longitudinal elevation a little broader than the lateral portions, feebly and evenly convex; ocular lines meeting at two lengths in advance; antennae as long as the width of head, basal joint black, remainder moderately pale piceous-brown, slender, club small; third joint two-fifths as long again as the fourth, fourth and fifth sub-equal in length, fifth but very slightly shorter than the third, six and seven equal in length, the latter thicker, eighth slightly thicker than the seventh, distinctly elongated, ovulate, joints of club increasing in length, last two of equal thickness; maxillary palpi rather short, first joint and base of the second pale testaceous, remainder dark piceous-brown. **Prothorax** widest slightly behind the middle, where it is five-sixths as wide as the head, and distinctly narrower than long; sides thence moderately convergent posteriorly and very feebly sinuate; anterior margin very slightly shorter and more arcuate than the posterior; surface finely, very closely, confusedly punctured; punctures isolated in the centre, very crowded and confused toward the base. **Elytra** at base about as wide as the head; sides moderately divergent posteriorly, longer than the width at base, feebly arcuate, more strongly so behind; together broadly and feebly emarginate behind; suture one-sixth as long again as the pronotum; surface rather convex, narrowly impressed along the suture, particularly toward the base; rather coarsely, feebly, and irregularly punctate; interspaces narrow and shining; channels neither long nor well-marked. **Abdominal** segments decreasing uniformly and moderately rapidly in width, first very slightly narrower than the contiguous elytra; surface rather convex, somewhat finely and evenly punctulate; punctures of fifth segment much finer and closer; transverse carinae 4-cuspid, cusps equal in length, equidistant, rather long, and finely aciculate. **Legs** moderate in length, somewhat slender, piceous-black above and beneath, tarsi paler; first joint of posterior tarsi one-half as long again as the second, much shorter than the last, second and third sub-equal, fourth shorter, fifth gradually narrowed toward the base.

Male.—Fifth ventral segment not appreciably modified; sixth very broad at apex, broadly sinuate, sinus very much wider and more feeble in curvature than the apices, evenly rounding throughout, eight or nine times as wide as deep, lateral setae of seventh segment absent.

Female.—Sixth segment very broadly truncate at apex, truncation feebly arcuate and just perceptibly produced in the middle.

Length 3.0–3.4 mm.

Lake Superior (locality not specified), 16; Capron, Florida, 5; Sand Point, Florida, 2; Middle States, 1; Southern States, 2; Cambridge, Massachusetts, 1; Waverly, Massachusetts, 1; Willets Point, Long Island, 1; California, 1; Arizona, 1.

A very widely distributed species, and easily recognized. In some specimens there is a very feeble indication of a canaliculation near the middle of the pronotum.

The parasite of this species is scarcely as long as the third joint of the maxillary palpi, nearly circular in outline, rather strongly convex, pale reddish-testaceous, and extremely highly polished; it is transversely segmented at two-thirds its length posteriorly, and at the posterior tip bears four or five short cinereous setae.

76. *S. mammops* n. sp.—Form very moderately robust, sides parallel. Pubescence rather short, semi-erect, fine, moderately close, cinereous. Head large, twice as wide as long; interocular surface twice as wide as the eye, nearly flat; longitudinal elevation slightly wider than the lateral portions, evenly and rather strongly convex; sulcations scarcely visible; punctures variolate, rather coarse, closely crowded, nearly evenly distributed, polygonal in outline; ocular lines meeting at less than one length in advance; antennae slightly longer than the width of head, slender, club moderate, basal joint black, remainder rather dark piceous-brown; third, fourth, and fifth joints decreasing uniformly and very gradually in length, sixth and seventh sub-equal in length, the latter much the more robust, eighth as long as the ninth, much shorter than the seventh, very robust, narrowed at base, joints of club increasing in length, the last two equal in width and somewhat more robust than the ninth; maxillary palpi rather pale piceous-brown, basal joint and first third of the second much paler flavo-testaceous. Prothorax very large and robust, areately, evenly, and rather rapidly widening to a point slightly behind the middle, where it is five-sixths as wide as the head, and just perceptibly narrower than long; sides thence rapidly convergent and very slightly sinuate; anterior margin slightly shorter and much more arcuate than the posterior, the latter nearly transverse; surface rather strongly tuberculate near each basal angle, tuberculations very widely separated; also transversely and very feebly impressed just behind the anterior margin; finely, very closely, rather feebly, and very confusedly punctate. Elytra at base much narrower than the head, scarcely wider than the prothorax; sides strongly divergent posteriorly, as long as the width at base, feebly and evenly arcuate; together broadly, somewhat angularly and rather deeply emarginate behind; suture distinctly shorter than the pronotum; surface depressed, nearly even, very roughly, evenly, closely, finely, and confusedly punctate. Abdominal segments decreasing uniformly in width and with extreme slowness, first slightly wider than the contiguous elytra; surface coarsely, feebly, rather closely, and evenly punctulate; becoming much more finely so toward the vertex; transverse carinae tricuspid, middle cusp strong, finely acuminate at tip, becoming much shorter on the posterior segments, lateral short, rudimentary, and generally bifid, except on

the first segment, where they are longer, more slender, and slightly inclined inward. **Legs** short, dark fusco-piceous, under surface of femora fuscous and much paler; first joint of posterior tarsi one-half as long again as the second, much shorter than the last, second much longer than the third, fourth very small; tarsi gradually attenuated toward tip.

Male.—Posterior edge of the fifth ventral segment emarginate in its middle third, emargination evenly rounded and about ten times as wide as deep, contiguous surface feebly impressed, impression becoming gradually extinct anteriorly; sixth segment deeply sinuate at apex, sinns and apices of equal curvature, the former evenly and rather acutely rounded, and about twice as wide as deep; seventh evenly and rather strongly emarginate at tip.

Female.—Sixth segment broadly and very evenly rounded behind.
Length 2.4–2.9 mm.

Cambridge, Massachusetts, 46; Trenton Falls, New York, 4; Detroit, Michigan, 6; Batchewanning Bay, Lake Superior, 2; Michipicoten River, Lake Superior, 4; Marquette, Michigan, 4; Isle Royale, Lake Superior, 1; Fort Garland, Colorado, 2; Lake Quesnel, British Columbia, 9.

Easily recognized by its very short elytra, large prothorax, and very rough sculpture. As may be seen by the foregoing list of localities, it is very widely distributed, and I can find no perceptible variation of any kind, even in specimens from the most widely separated regions.

77. ***S. gravidus*** n. sp.—Form rather robust, sides parallel. Pubescence very short, semi-erect, rather sparse, fine, dark plumbeo-cinereous. **Head** large and robust, distinctly more than twice as wide as long; interocular surface nearly flat, twice as wide as the eye; equally trilobed by the very faint, rounded sulcations; intermediate surface rather strongly and evenly convex, rising above the general surface; punctures small, very close, polygonal, confusedly coalescent; ocular lines meeting at less than one length in advance; antennae distinctly shorter than the width of head, slender, club moderate, dark piceous-brown, basal joint black; third joint one-fourth as long again as the fourth, fourth and fifth equal, sixth shorter and much more slender than the seventh, eighth equal in width to the seventh, slightly elongated, nearly sub-globular, joints of club very gradually increasing in length, ninth oval and intermediate in thickness between the eighth and tenth, tenth and eleventh of equal width; maxillary palpi moderate in length, piceous-brown, first joint and base of the second piceo-testaceous. **Prothorax** robust, arcuately and rather rapidly widening to a point slightly in advance of the middle, where it is three-fourths as wide as the head, and just perceptibly narrower than long; sides thence moderately convergent and straight; anterior and posterior margins sub-equal in length, the former slightly the more arcuate; surface distinctly tuberculate near the basal angles, tuberculations widely separated; also transversely and rather feebly impressed just behind the anterior margin; punctures rather small, feebly

impressed, close, very confusedly coalescent. **Elytra** at base much narrower than the head; sides strongly divergent posteriorly, longer than the width at base and moderately areolate; together very broadly, roundly, and rather strongly emarginate behind; suture very slightly shorter than the pronotum; surface depressed, nearly even, rather finely, closely, roughly, and very confusedly sculptured; channels not distinctly traceable. **Abdominal** segments arcuately and just perceptibly decreasing in width, first slightly wider than the contiguous elytra; surface broadly and feebly convex; very coarsely, rather distantly and evenly punctulate; transverse carinae tricuspid, cusps rather long, equal in length, middle ones becoming finely acuminate, lateral broad, decreasing in width toward tip, where they are narrowly truncate and confluent with the general surface. **Legs** short and slender, dark blackish-fuscous above, slightly paler beneath; first joint of the posterior tarsi scarcely one-fourth as long again as the second, very much shorter than the fifth, second much longer than the third, third and fourth of nearly equal length; the first two joints are much more robust than the third and fourth; the fifth is slightly clavate.

Male.—Fifth ventral segment scarcely modified, with the exception of a very faint flattening along its middle fourth; sixth segment broadly and feebly bilobed at apex, cusp very feebly and narrowly rounded, arms nearly straight; seventh very feebly sinuate at tip, without trace of either terminal teeth or lateral setae.

Female.—Unknown.

Length 3.0 mm.

Cambridge, Massachusetts, 1.

I am quite sure of the sex of the above type specimen, although the characters of the sixth segment as given, are rather those of a female in types, the males of which are provided with very striking sexual characters. The species is very distinct, and could not fail of instant recognition by the unaided eye, even when among a large number of other species, with sole exception of the preceding form, to which it bears an illusive resemblance. They may be distinguished by the more robust form and coarser sculpture of *gravidus*, and also by differences in the sexual characters.

78. **S. animatus** n. sp.—Form rather slender. Pubescence short, sub-recumbent, rather close, fine, pale fulvo-cinereous. **Head** robust, scarcely twice as wide as long; interocular surface feebly depressed, slightly more than twice as wide as the eye; longitudinal elevation narrower than the lateral portions, evenly and very strongly convex, conspicuous; punctures rather fine, closely crowded, and oblong near the eyes, more sparse along the median line; ocular lines meeting at two-thirds of a length in advance; antennae as long as the width of head, slender, club small, basal joint black, second slightly paler, remainder pale piceous-brown; third joint one-half as long again as the fourth, fourth and fifth equal in length, sixth and seventh very slightly shorter, equal in length, the latter thicker and oval, eighth

scarcely more than one-half as long as the seventh and somewhat less robust, oval, joints of club increasing uniformly and very gradually in length and thickness; maxillary palpi piceous-black, slender, first joint translucent and dark piceo-testaceous. **Prothorax** widest at the middle, where it is five-sixths as wide as the head and distinctly narrower than long; sides thence feebly convergent posteriorly and very feebly sinuate; anterior margin very slightly shorter and distinctly more arcuate than the posterior; surface obliquely tuberculate at the basal angles, feebly and transversely impressed just behind the anterior margin; punctures small, feeble, confusedly coalescent near the margins, more isolated in the middle, where the interspaces are nearly flat and minutely reticulated. **Elytra** at base as wide as the head; sides moderately divergent posteriorly, longer than the width at base, nearly straight, slightly sinuous; together broadly, angularly, and somewhat strongly emarginate behind; suture one-eighth as long again as the pronotum; surface impressed along the suture toward the base; punctures small, rounded, feebly impressed, rather close, and confusedly coalescent. **Abdominal** segments decreasing uniformly and very gradually in width, first as wide as the contiguous elytra; surface coarsely and somewhat closely punctulate, somewhat more finely so posteriorly, and sparsely so along the median line; transverse carinae trispinose, middle cusps strong, finely acuminate at tip, lateral distant and so rudimentary as to appear simply as broad and very feeble protuberances. **Legs** short and slender, piceous-black above, dark piceo-fuscous beneath; first joint of the posterior tarsi three-fourths as long again as the second, longer than the last, second joint as long as the third and fourth together, fourth very small, oblique.

Male.—Unknown.

Female.—Sixth ventral segment broadly and evenly rounded behind.

Length 2.6 mm.

Marquette, Lake Superior, 1.

This species belongs to an extremely common type of the genus, and has numerous affinities with various species in the group with caudiculated pronotum; it appears, however, to be distinct, as far as the very limited material at hand will allow of judgment.

79. **S. tumicollis** n. sp.—Form moderately slender, sides parallel. Pubescence rather short and sparse, sub-recumbent, fine, pale flavo-cinereous. **Head** moderate, robust, scarcely twice as wide as long; interocular surface flat, more than twice as wide as the eye, equally trilobed by the very feeble, rounded sulcations; intermediate surface feebly and evenly convex; punctures rather coarse near the eyes, much finer along the middle, very close, rounded in outline, not coalescent; ocular lines meeting at nearly one and one-half lengths in advance; antennae equal in length to the width of head, very robust, piceous-black, club distinct; first two joints equal in length and thickness, third joint one-third as long again as the fourth, fourth and fifth equal, sixth distinctly longer and more slender than the seventh, eighth small, sub-globular, joints of club increasing rapidly in length, last two of equal thickness; maxillary palpi long, piceous-black,

first joint translucent and pale piceo-testaceous, third robust, nearly as long as the first and second together. **Prothorax** widest slightly in advance of the middle, where it is five-sixths as wide as the head, and distinctly narrower than long; sides thence rather rapidly convergent posteriorly and distinctly sinuate; anterior margin slightly longer than the posterior, equally arcuate; surface broadly flattened above, feebly tuberculate near the basal angles, and broadly swollen throughout the length and breadth of the anterior half of the pronotum; punctures rather small, somewhat variform, generally rounded and very close, interspaces feebly convex, distinctly granulate and feebly shining. **Elytra** at base just perceptibly narrower than the head; sides moderately divergent posteriorly, slightly longer than the width at base, nearly straight; together broadly, roundly, and rather strongly emarginate behind; suture one-seventh as long again as the pronotum; surface feebly impressed on the suture toward the base, coarsely and rather closely punctured; punctures seldom coalescing, round, very variable in size and distance, being small and widely isolated near the inner basal angles, and very large and closely crowded behind the middle. **First three abdominal segments** sub-equal in width, and as wide as the contiguous elytra; surface coarsely and closely punctulate, much more finely so toward the tip; transverse carinae acute, cusps rather long, finely acuminate, and distant, lateral slightly shorter and inclined inward. **Legs** moderate, piceous-black above, femora dark piceo-rufous beneath; first joint of the posterior tarsi two-thirds as long again as the second, much shorter than the last, joints two to four decreasing uniformly and very gradually in length.

Male.—Unknown.

Female.—Sixth ventral segment very evenly rounded behind throughout. Length 2.7 mm.

Detroit, Michigan, 1.

This species is easily recognized by the broadly rectangular, though rather moderate and superficially flattened swelling, which occupies the entire anterior half of the pronotum.

80. **S. carinicornis** n. sp.—Form moderately slender, sides parallel. Pubescence rather short, coarse, close, sub-recumbent, dark fulvo-cinereous. **Head** moderate, twice as wide as long; interocular surface nearly flat, two and one-half times as wide as the eye; longitudinal sulcations very deep and conspicuous; intermediate surface narrower than the lateral portions, strongly and evenly convex; punctures rounded, fine, very closely crowded, somewhat confused; ocular lines meeting at somewhat more than one length in advance; antennae very slightly longer than the width of head, moderately slender, piceous-black, club distinct; third joint one-fourth as long again as the fourth, fourth just perceptibly longer than the fifth, seventh much shorter than the sixth and slightly longer, though scarcely more slender than the eighth, eighth slightly shorter than the seventh and no thicker, sub-cylindrical, joints of club increasing rather rapidly in length. **Prothorax** arcuately, evenly, and rapidly increasing in width to the middle, where it is three-fourths as wide as the head, and distinctly narrower than long; sides

thence moderately convergent posteriorly and strongly sinuate; anterior margin slightly shorter than the base, very areolate, posterior margin transverse and straight; surface finely, closely, rather feebly, and confusedly punctate, very feebly shining; feebly and minutely tuberculate near the basal angles; transversely swollen near the middle, from which point, extending posteriorly nearly to the base, there is a narrow, fine, acute, and prominent carina. **Elytra** at the base very slightly narrower than the head; sides very feebly divergent posteriorly, equal in length to the width at base, nearly straight; together broadly, somewhat angularly and deeply emarginate behind; suture equal in length to the pronotum; surface rather depressed, feebly impressed along the suture, more strongly so toward the base, also longitudinally impressed near the humeri; closely, rather coarsely, very feebly, and irregularly punctured and channeled. **First** three abdominal segments equal in width, and as wide as the contiguous elytra; surface coarsely, exceedingly closely, and feebly punctulate; transverse carinae not cusped. **Legs** moderate, piceous-black, femora dark piceo-rufous; first joint of the posterior tarsi two-thirds as long again as the second, second as long as the third and fourth together.

Male.—Fifth ventral segment emarginate in its middle third at apex, emargination evenly rounded, feeble and almost unmeasurable, angles rounded, contiguous surface feebly impressed throughout anteriorly, sides of impressed area slightly convergent; sixth segment sinuate at apex, sinus and apices nearly equal in width and curvature, five times as wide as deep; seventh feebly and roundly emarginate at tip, surface minutely granulose and lustreless.

Female.—Sixth segment angularly produced at the apex.

Length 2.3–2.8 mm.

Marquette, Michigan, 4; Gargantua, Michigan, 1; Michipicoten River, Lake Superior, 1.

One of the most distinct species of the genus, and the only one known to me, having a carinated pronotum. All the characters are good. The palpi are very slender, piceous-black, with exception of the first joint and the base of the second, which are paler and piceo-testaceous; the third joint is very long.

The above description was taken from the female, except that of the antennae, which is drawn from a male specimen.

81. **S. insignis** n. sp.—Form moderately robust. Pubescence rather long, sparse, recumbent, and cinereous. **Head** rather large, twice as wide as long; interocular surface nearly flat; sulcations rounded and conspicuous; intermediate surface very slightly wider than the lateral portions, evenly and rather strongly convex; punctures small, very sparse, feebly impressed, and not distinct, interspaces highly polished; ocular lines meeting at scarcely one-half a length in advance; antennae slightly longer than the width of head, basal joint black, second a little paler, the remainder pale piceous-brown, rather robust, club distinct; third joint one-fourth as long again as the fourth, fourth and fifth equal, sixth and seventh equal in length, the

latter very slightly the thicker, eighth distinctly elongated, oval, joints of club increasing slightly in length, the last two of nearly equal thickness; maxillary palpi rather long and robust, piecous-black, first joint pieco-testaceous. **Prothorax** arcuately, evenly, and gradually widening to the middle, where it is four-fifths as wide as the head and one-sixth narrower than long; sides thence very moderately convergent and feebly sinuate; anterior and posterior margins equal in length, the former the more arcuate; surface very feebly and minutely tuberculate at the basal angles, otherwise very evenly convex, rather finely, very sparsely, unevenly, and feebly punctate; punctures impressed and varying greatly in size; interspaces flat, obscurely and minutely reticulated, highly polished. **Elytra** at base very slightly narrower than the head; sides moderately divergent posteriorly, distinctly longer than the width at base, moderately arcuate; together broadly and very feebly emarginate behind; suture nearly one-sixth as long again as the pronotum; surface feebly impressed along the suture, almost equally so throughout; rather feebly, somewhat distantly, and very irregularly punctured and channeled, interspaces nearly flat, highly polished. **Abdominal** segments decreasing almost uniformly and rather rapidly in width, first nearly as wide as the contiguous elytra; surface highly polished, rather strongly convex, feebly, minutely, and very sparsely punctulate; transverse carinae apparently not cusped. **Legs** moderate, piecous-black, tarsi paler; first joint of posterior tarsi two-thirds as long again as the second, second slightly longer than the third.

Male.—Posterior edge of the fifth ventral segment just perceptibly emarginate in its middle third, emargination evenly rounded and scarcely measurable; sixth very broadly sinuate at apex, sinus occupying nearly the entire segmental apex, evenly rounded throughout, about twelve times as wide as deep.

Female.—Sixth ventral segment evenly rounded behind.
Length 2.9 mm.

Oak Grove, California, 1; Los Angeles, California, 4.

The very sparse and peculiar punctuation of the head and prothorax separates this species from several closely allied forms.

Subdivision 3.

The species of this subdivision are nearly always easily recognizable; they are generally small, highly polished, except in the first group, and more or less pubescent.

There are two groups indicated:—

- Punctures rather deep, closely crowded, but usually not coalescent; interspaces not shining or very feebly so; pubescence very coarse, more or less fulvous, abundant.....I.
Punctures more or less deeply impressed, rather more distant; interspaces highly polished; pubescence usually fine and somewhat dense, though sometimes very sparse, varying in color from cinereous to piecous, very seldom flavate.....II.

Subdivision 3.

Group I.

This group contains but two species, both very abundant, well known, and of very distinct appearance. They are nearly opaque, and have a roughly though evenly sculptured surface. The robust, fulvous setae are very conspicuous. *S. corvus* might be placed here, but it lacks the fulvous pubescence to a great extent.

Our two species may be recognized by the following characters:—

Longitudinal sulcations of head distinct; form slender.....82. **stygius**.
Sulcations of head obsolete; interocular surface flat; form more robust.

83. **egenus**.

82. **S. stygius** Say.—Form rather slender. Pubescence short, very coarse, abundant, semi-erect, and setiform, pale flavo-cinereous. **Head** moderate or small, scarcely twice as wide as long; interocular surface scarcely more than twice as wide as the eye, nearly flat, very densely punctured; punctures shallow and sub-variolate, interspaces very narrow; ocular lines meeting at one length in advance; longitudinal sulcations distinct; antennae somewhat longer than the width of head, dark fusco-piceous, base black, club small but abrupt; third joint just perceptibly longer than the fourth, sixth very slightly longer than the seventh, eighth sub-globular, very small, joints of club nearly equal in size, tenth slightly the thickest; maxillary palpi dark fusco-piceous, first joint fusco-testaceous. **Prothorax** widest notably before the middle, where it is five-sixths as wide as the head, and one-fifth narrower than long; sides thence feebly convergent posteriorly and almost straight; sides anteriorly evenly arcuate; posterior margin slightly longer and less arcuate than the anterior; surface evenly convex, rather coarsely, very closely, somewhat evenly, and variolately punctured, interspaces very narrow, minutely granulated, and feebly shining. **Elytra** at base very slightly wider than the head; sides nearly parallel and strongly arcuate, much longer than the width at base; together broadly, very evenly, and rather feebly emarginate posteriorly; suture one-fifth as long again as the pronotum; surface evenly convex, coarsely, very closely, and evenly punctate; punctures wide, shallow, variolate, interspaces about one-fourth their width, feebly shining. **Abdominal** segments decreasing very gradually in width, first slightly narrower than the contiguous elytra; surface convex, shining, rather finely, and somewhat distantly punctulate; punctures impressed; transverse carinae 4-cuspid, cusps very short but distinct, intervals feebly sinuate. Under surface of abdomen shining; pubescence long, fine, and recumbent; rather coarsely and distantly punctulate. **Legs** moderate, dark piceous, tarsi paler; first joint of the posterior one-half as long again as the second, second notably longer than the third.

Male.—Posterior edge of the fifth ventral segment just perceptibly emarginate throughout its width; sixth broadly sinuate at the apex, sinus somewhat strong, evenly rounded, about six times as wide as deep.

Female.—Sixth segment very broadly and triangularly produced posteriorly, sometimes nearly evenly rounding.

Length 3.0–3.7 mm.

Michipicoten River, Lake Superior, 7; Batchewauung Bay, Lake Superior, 1; Lake Superior, 7; Columbus, Texas, 8; Topeka, Kansas, 1; Western States, 2; Selma, Alabama, 3; Southern States, 1; Middle States, 4; Marquette, Michigan, 1; New Jersey, 2; District of Columbia, 2; Pennsylvania, 2; Long Island, New York, 4; New York, 3; Cambridge, Massachusetts, 1; Unknown, 13.

This common and well-marked species seems to vary to a considerable extent; the head is narrower between the eyes, the third joint of the antennae is much longer than the fourth, and the palpi are entirely black in the Texas specimens, and the elytra are seemingly shorter in those from Michigan; there also appears to be a slight variation in the relative lengths of the second and third joints of the posterior tarsi. The punctuation does not appreciably vary. There may be two or more distinct species indicated by these characters, but they are so close, and seem to have so many intermediate forms, that I do not feel warranted in describing them. It may be readily recognized by the unusually long second joint of the posterior tarsi.

I believe this species has been identified as *cinereus* Er., by Mr. Fauvel, but, on reading the description of that species, and comparing it carefully with that of *stygius* Say, as just given, I am unwilling at present to make the change.

83. *S. egenus* Erichs.—Form rather robust. Pubescence exceedingly sparse, short, coarse, semi-erect, flavo-cinereous. Head moderate, twice as wide as long; interocular surface flat, three times as wide as the eye; deeply, rather finely, and exceedingly closely punctured; no trace of sulcations or elevation; ocular lines meeting at about two and one-half lengths in advance; antennae rather slender, as long as the width of head, piceous-black, paler toward tip, club small, but distinct; third joint one-third as long again as the fourth, joints three to six uniformly decreasing in length, six and seven sub-equal, joints of club successively increasing in length, eleventh acminate at tip; maxillary palpi piceous-black. Prothorax robust, widest just before the middle, where it is five-sixths as wide as the head and but slightly narrower than long; sides thence feebly convergent posteriorly, and just perceptibly sinuate; anterior margin very slightly longer than the posterior, equally arcuate; surface evenly convex with a very slight transverse impression just behind the anterior margin; rather finely, evenly, and exceedingly closely punctured, interspaces just visible as acute ridges, lustreless. Elytra at base slightly wider than the head; sides slightly divergent posteriorly, feebly and evenly arcuate; together broadly and very feebly emarginate behind; suture one-fifth as long again as the pronotum; surface convex,

together with a slight depression at the middle of the base, very deeply, evenly, rather coarsely, and exceedingly closely punctured; punctures deep, polygonal in outline; interspaces very narrow, minutely granulate, without lustre. **Abdominal** segments decreasing regularly and quite rapidly in width, first nearly as wide as the contiguous elytra; border prominent; surface finely punctulate, minutely but very distantly granulate, not shining; transverse carinae 4-enspid, cusps broad, short, wider at the apices. Under surface of the abdomen piecous-black, paler toward the tip, more lustrous than the upper surface and more finely punctulate. **Legs** moderate, piecous-black; first joint of the posterior tarsi one-half as long again as the second, second but slightly longer than the third.

Male.—Posterior edge of the fifth ventral segment sinuate; sinus very narrow and feeble; sixth broadly sinuate at apex, sinus evenly rounded, five times as wide as deep.

Female.—Sixth segment very broadly and evenly rounded behind.
Length 2.8–3.1 mm.

Michigan (Escanaba, Marquette, Grand Ledge, Monroe), 51;
Topeka, Kansas, 1; Pennsylvania, 2.

One of the most distinct species in the genus by reason of its sculpture. The surface under a hand-lens seems absolutely without lustre.

Subdivision 2.

Group II.

The characters of the present group have been sufficiently stated above; the following diagnostic table will, perhaps, distinguish the species more or less satisfactorily:—

Transverse carinae of abdomen 4-cuspid.

Prothorax canalculated.

Longitudinal elevation of interocular surface distinct.

Prothorax widest distinctly before the middle, somewhat cordate.

Small species, 2.7–3.0 mm.; pubescence rather long and conspicuous.

Somewhat slender; ocular lines close and very convergent. Colorado.....84. **dolosus**.

More robust; ocular lines distant and almost parallel. California.
85. **villosus**.

Larger species, 3.8–4.0 mm.

Pubescence almost completely absent; elytral punctures small, evenly distributed, and widely isolated. District of Columbia.

86. **sectilifer**.

Pubescence rather long and conspicuous; elytral punctures large, deep, rounded, and often semi-coalescent...87. **milleporus**.

Prothorax widest at the middle. British Columbia...88. **jejunus**.
Interocular surface nearly flat; sulcations and longitudinal elevation obsolete.

Prothorax much elongated; punctures separated by at least their own diameters; pubescence very sparse and inconspicuous.

89. **vimmulus.**

Prothorax very robust; punctures very close, never separated by more than one-third of their own width.

Third joint of antennae much shorter than the fourth. Alaska.

90. **congener.**

Third joint of antennae much longer than the fourth. Massachusetts, Michigan.....91. **canaliculatus.**

Prothorax not canaliculated.

Legs pale; body densely clothed with very long, erect, bristling setae, which are very prominent.....92. **carolinæ.**

Legs black or nearly so; pubescence short, sub-recumbent, moderately prominent.

First joint of posterior tarsi twice as long as the second...93. **ageus.**

First joint distinctly less than twice as long as the second.

Joints three to five of antennae uniformly decreasing in length.

94. **pudivus.**

Antennal joints four and five equal in length, abruptly shorter than the third.

First joint of posterior tarsi very short, scarcely one-half longer than the second.....95. **minor.**

First joint much more than one-half longer than the second.

Form somewhat slender; head rather large. Massachusetts.

96. **rigidus.**

Form more robust; head small. Nebraska.....97. **incertus.**

Transverse carinae of abdomen tricuspid; lateral cusps very small and rudimentary.....98. **parallelus.**

Transverse carinae not cusped.

Prothorax very feebly canaliculated; body depressed, elongated; species rather large. White Mountains, N. H.....99. **noctivagus.**

Prothorax not canaliculated.

First joint of posterior tarsi very slightly longer than the second; punctation extremely fine. California.....100. **luculentus.**

First joint of posterior tarsi from one-half to three-fourths longer than the second.

Very small species, not exceeding 2.2 mm. in length.

Elytra much longer than wide, distinctly narrowed toward the base, distantly punctured, very highly polished.....101. **juvencus.**

Elytra nearly quadrate, very densely punctured.

102. **pauperculus.**

Larger species, not less than 2.8 mm. in length.

Antennal joints three to six uniformly decreasing in length; form of body sub-cylindrical.....103. **haplus.**

Antennal joints three and four equal in length; suture of elytra but slightly longer than the pronotum.....104. **enodis.**

Antennal joints four and five equal in length and distinctly shorter than the third.

- Prothorax distinctly elongated, widest at one-third its length from the apex; abdominal segments very rapidly decreasing in width.....105. **dives**.
- Prothorax very robust, just perceptibly narrower than long, widest very near the middle; abdominal segments broad, decreasing very slowly in width.
- First joint of posterior tarsi one-half longer than the second; body coarsely punctured106. **subgriseus**.
- First joint two-thirds longer than the second; body much more finely and closely punctured107. **terricola**.
- First joint of posterior tarsi twice as long as the second.
- Large species 3.7-4.1 mm.; body excessively minutely punctate; pubescence long and recumbent. Washington Territory.
108. **mundulus**.
- Small species not exceeding 2.9 mm. in length.
- Prothorax widest before the middle; pronotum remarkably tuberculate. Florida.....109. **tuberculatus**.
- Prothorax widest at the middle; surface of pronotum very even.
- Antennal joints four and five equal in length, one-third shorter than the third.....110. **indistinctus**.
- Antennal joints three, four, and five uniformly and very rapidly decreasing in length; body very densely and conspicuously hirsute111. **brumalis**.

84. **S. dolosus** n. sp.—Form rather slender. Pubescence long, fine, rather dense, sub-recumbent, pale flavo-cinereous. Head small, twice as wide as long; interocular surface equally trilobed by the very distinct sulcations; intermediate and lateral surfaces nearly equally, rather strongly, and evenly convex; punctures rather coarse and very close, nearly even; ocular lines meeting at about four lengths in advance; antennae about equal in length to the width of head, piceous-black, very slightly paler toward tip, club moderate; third, fourth, and fifth joints decreasing nearly uniformly and very gradually in length, sixth and seventh sub-equal in length and much shorter, last two joints much thicker than the ninth; maxillary palpi short and robust, piceous-black, first joint paler. Prothorax robust and somewhat cordate, widest well before the middle, where it is three-fourths as wide as the head, and nearly one-sixth narrower than long; sides thence moderately convergent posteriorly and slightly sinuate; anterior margin slightly longer and much more arcuate than the posterior; surface somewhat longitudinally ridged at the sides toward the base, finely and irregularly punctate; punctures impressed, very distant in the middle, closer toward the margins; interspaces very convex, highly polished; canaliculation nearly as long as the pronotum, narrow, deep, equally wide throughout. Elytra at base distinctly wider than the head; sides just perceptibly divergent posteriorly, as long as the width at base, feebly arcuate; together broadly and very feebly emarginate behind; suture one-fifth as long again as the pronotum; surface somewhat uneven, rather finely and evenly punctate; punctures impressed; interspaces nearly as wide as the punctures, very convex, highly

polished. **Abdominal** segments decreasing uniformly and rather rapidly in width, first as wide as the contiguous elytra; surface very convex, highly polished, densely hirsute, very finely and sparsely punctulate; transverse carinae 4-cuspid, cusps equal in length, rather approximate, finely acicular. **Legs** short, dark piceous; first joint of the posterior tarsi scarcely one-fourth as long again as the second, much shorter than the last, first four joints decreasing nearly uniformly in length.

Male.—Posterior edge of the fifth ventral segment scarcely perceptibly and very broadly sinuate; sixth broadly emarginate at apex throughout its width, emargination evenly rounded throughout, about ten times as wide as deep.

Female.—Unknown.

Length 2.7 mm.

Fort Garland, Colorado, 1.

85. **S. villosus** n. sp.—Form moderately robust. Pubescence long, very dense, recumbent, fine, cinereous, and conspicuous. **Head** small, twice as wide as long; interocular surface two and one-half times as wide as the eye, very slightly convex; equally trilobed by the moderately strong sulcations; intermediate surface evenly convex, summit impunctate; punctures rather coarse, variolate, rather distant, evenly distributed; ocular lines meeting at three to four lengths in advance; first two joints of antennae black, mandibles fuscous at tips. **Prothorax** widest before the middle, where it is four-fifths as wide as the head, and one-fifth narrower than long; sides thence very moderately convergent posteriorly, and very strongly sinuate; anterior margin shorter and much more arcuate than the posterior; surface faintly swollen at the sides, particularly toward the base, finely, distantly, and evenly punctate; punctures deeply impressed; interspaces wider than the punctures, convex, very highly polished; canalliculation as in *milleporus*. **Elytra** at base distinctly wider than the head; sides rather feebly divergent posteriorly, much longer than the width at base, rather strongly arcuate; together broadly, roundly, and just perceptibly emarginate behind; suture about one-third as long again as the pronotum; surface rather strongly impressed along the suture toward the base, and also feebly, longitudinally, and somewhat indefinitely impressed toward the middle of the base of each elytron, finely and evenly punctate; punctures deeply impressed and very seldom coalescing, much smaller toward the base; interspaces as wide as the punctures, convex, very highly polished. **Abdominal** segments decreasing uniformly and rather gradually in width, first very slightly narrower than the contiguous elytra; surface broadly convex, highly polished; finely, rather sparsely, and evenly punctulate; transverse carinae 4-cuspid, cusps equal, rather approximate, finely aciculate and prominent. **Legs** stout, piceous-black, femora black; first joint of the posterior tarsi one-half as long again as the second, distinctly shorter than the fifth, second and third subequal, fourth very slightly shorter.

Male.—Fifth ventral segment very feebly flattened in its middle fourth throughout, edge scarcely modified; sixth segment very broadly sinuate at

apex, sinus evenly rounded, extending through nearly the entire segmental width, ten to twelve times as wide as deep.

Female.—Unknown.

Length 3.0 mm.

California, 1.

The antennae are missing with exception of the first two joints, and the maxillary palpi are also wanting.

The species somewhat resembles *milleporus* and *vinnulus*, but differs from both in the relative lengths of the elytra and prothorax, and from the latter in addition, by its much narrower head and dense pubescence.

86. *S. sectilifer* n. sp.—Form moderately robust. Pubescence of head, pronotum, and elytra so fine and sparse as to be scarcely visible, cinereous; that of abdomen also very fine, semi-erect, and exceedingly sparse, cinereous. **Head** small, scarcely twice as wide as long; interocular surface nearly flat, equally trilobed by the longitudinal sulcations, which are just apparent; evenly punctate; punctures small and impressed; interspaces slightly wider than the punctures, highly polished; ocular lines meeting at one and one-half lengths in advance; antennae slightly longer than the width of head, slender, dark fuscous, club moderate; third joint one-fifth as long again as the fourth, joints four to seven gradually decreasing in length, joints of club gradually increasing in length, ninth much narrower than the last two, eleventh acuminate at tip; first five joints nearly glabrous; maxillary palpi slender, first joint testaceous, second darker, third black. **Prothorax** widest slightly before the middle, where it is much wider than the interocular surface, sides thence nearly parallel posteriorly and sinuate, length one-eighth greater than the width; anterior margin shorter and much more arcuate than the posterior; surface evenly convex, with a narrow, shallow and equal, longitudinal canaliculation, terminating at a very short distance from either margin; rather finely punctured and transversely regulose; interspaces highly polished. **Elytra** at base much wider than the head, sides almost parallel and slightly areolate, more so posteriorly; together broadly and very feebly emarginate behind; length of suture slightly greater than that of the pronotum; surface generally convex, with a slight oblique impression just before the middle of each, and another near the outer apical angle; quite evenly punctate; punctures small and deeply impressed; interspaces much wider than the punctures, highly polished. **First** three abdominal segments nearly equal in width, and almost imperceptibly narrower than the elytra behind; surface highly polished, finely and distantly punctulate; transverse carinae acutely and finely 4-cuspid, intervals sinuate. **Legs** short, black, femora and tibiae nearly glabrous, tarsi slightly paler; first joint of posterior three-fourths as long again as the second, second much longer than the third. Under surface of the abdomen punctate like the dorsal surface.

Male.—Unknown.

Female.—Posterior edge of sixth ventral segment evenly rounded.

Length 3.8 mm.

District of Columbia, 1.

87. *S. milleporus* n. sp. (Fauvel MS.).—Form moderately robust, males more slender. Pubescence very long, erect, moderately dense, dark cinereous. Head very small, twice as wide as long; interocular surface very slightly convex, equally trilobed by the conspicuous sulcations; intermediate surface evenly convex; punctures large, round, impressed, and close; interspaces very convex and highly polished; ocular lines meeting at three or four lengths in advance; antennae slender, much longer than the width of head, coarsely setose, base black, remainder piceous, club distinct; joints three to six sub-equal, sixth very slightly longer than the seventh, eighth elongated slightly, joints of club increasing in length, last two very robust; maxillary palpi piceous, first joint paler. Prothorax widest slightly before the middle, where it is from one-sixth to one-seventh narrower than long; sides thence just perceptibly convergent posteriorly and deeply sinuate; anterior margin very slightly longer and more areolate than the posterior; surface flat above, abruptly declivous at the sides: deeply, closely, and irregularly punctate; interspaces very convex, highly polished: canaliculation as in *vinnulus*. Elytra at base wider than the head; sides very feebly divergent posteriorly, rather strongly arcuate, and very slightly longer than the basal width; together broadly and just perceptibly emarginate behind; suture one-sixth as long again as the pronotum; surface convex, impressed along the suture and near the outer apical angles, coarsely, rather closely, and somewhat irregularly punctate; punctures round, deeply impressed, and varying in size; interspaces convex and highly polished. Abdominal segments decreasing uniformly in width, rapidly in the males, slowly in the females; first narrower than the contiguous elytra; surface convex, coarsely and closely punctulate at the sides, impunctate and highly polished along the middle; transverse carinae 4-cuspid, cusps approximate, long, acicular, prominent; under surface coarsely punctulate at base, becoming very finely and closely so at tip; clothed rather sparsely with long semi-erect setae. Legs short, moderately slender, black; tarsi slightly paler; first joint of posterior tarsi one-half to two-thirds as long again as the second, second longer than the third, third and fourth sub-equal.

Male.—Posterior edge of the fifth ventral segment transverse in some specimens, just perceptibly sinuate in others, surface neither impressed nor flattened; sixth segment sinuate at apex, sinus much broader than the apices, evenly rounding, five times as wide as deep; seventh deeply emarginate at tip, bottom of emargination transverse, teeth very long and slender.

Female.—Sixth segment very broadly angulate at tip; seventh sometimes irregularly and deeply serrate at tip.

Length, males, 3.0 mm.; females, 4.0 mm.

New York, 3; St. Catharine Island, Georgia, 3; Florida, 7; Unknown, 3.

Resembles *vinnulus*, but differs in the pubescence, in the coarser and closer elytral punctuation, and in the sexual characters.

A specimen of this species affords one of the few instances which I have observed, in which the lingula with the paraglossae has been protruded; it seems to be an exceedingly rare phenomenon in the American representatives of the genus.

88. **S. jejunus** n. sp.—Form robust. Pubescence rather abundant, semi-erect, cinereous, moderate in length. **Head** small, scarcely twice as wide as long; interocular surface flat, a little more than twice as wide as the eye, finely and rather closely punctate; sulcations shallow, but distinct; ocular lines meeting at about two lengths in advance; antennae very short and robust, scarcely as long as the width of head, dark fuscous, sparingly setose, club distinct; joints three to five equal in length, six and seven equal, last two equal, very large, sub-globular, ninth very much smaller; maxillary palpi slender, piceous-black, base of first joint slightly paler. **Prothorax** widest just before the middle, where it is four-fifths as wide as the head; sides thence convergent slightly posteriorly, sinuate; length slightly greater than width; anterior and posterior margins equal in length and equally arcuate; surface rather evenly convex; deeply, rather finely and irregularly punctate; interspaces moderately shining; a long, narrow and equal medial canalliculation extends to within a very short distance of either margin. **Elytra** at base perceptibly wider than the head; sides divergent posteriorly and arcuate; together broadly and feebly emarginate behind; suture one-fifth as long again as the pronotum; surface of each slightly swollen near the inner basal angles; deeply and rather unevenly punctate; punctures impressed, interspaces generally wider than the punctures, shining. **Abdominal** segments decreasing moderately and evenly in width posteriorly, first narrower than the elytra; very finely and rather closely punctulate; surface moderately shining; transverse carinae 4-cuspid, cusps having the points expanded, intervals strongly sinuate. **Legs** moderate, dark piceous-black, tarsi very slightly paler; first joint of the posterior about twice as long as the second, second slightly longer than the third. Under surface of the abdomen much more coarsely and distantly punctulate than the upper, having the surface more highly polished.

Male.—Posterior edge of the fifth ventral segment very broadly and feebly bilobed; sixth very broadly and strongly sinuate at apex, depth of sinus equal to one-fifth its width; seventh segment deeply emarginate at apex.

Female.—Unknown.

Length 3.0 mm.

British Columbia, 1.

89. **S. vimululus** n. sp.—Form moderately robust. Pubescence long, semi-erect, fine, rather abundant, piceo-cinereous on the elytra and abdomen, shorter and erect on the head and prothorax. **Head** moderate, twice as wide as long; interocular surface flat, more than twice as wide as the eye; equally trilobed by the scarcely perceptible sulcations; intermediate surface evenly and feebly convex; punctures closely crowded, small, polygonal, and sometimes coalescent; antennae much longer than the width of head, slender, coarsely setose, basal joint black, remainder piceous-black, club not conspicuous; third joint one-fourth as long again as the fourth, fourth slightly longer than the fifth, sixth and seventh of equal length, eighth twice as long as wide, conoidal, joints of club of nearly equal length, increasing in width, ninth conoidal, last ovoidal; first joint of maxillary palpi piceo-testaceous, base of second same, remainder piceous. **Prothorax** elongated, widest slightly

before the middle, where it is three-fourths as wide as the head, and one-fourth narrower than long; sides thence moderately convergent and slightly sinuous; anterior and posterior margins equal in curvature, the former noticeably longer; surface strongly declivous at the sides; rather finely, somewhat irregularly punctate; punctures deeply impressed and sometimes coalescent; interspaces nearly as wide as the punctures, very convex, highly polished; canaliculation long and narrow, sides somewhat irregularly outlined, terminating within very short distances of the margins. **Elytra** at base as wide as the head; sides very feebly divergent posteriorly and strongly arcuate, longer than breadth at base; together broadly and just perceptibly emarginate behind; suture very slightly longer than the pronotum; surface convex, impressed along the suture, more deeply so toward the base; moderately coarsely, deeply, and rather irregularly punctate; punctures seldom coalescent; interspaces generally as wide as the punctures, very convex, highly polished. **Abdominal** segments decreasing uniformly and rather rapidly in width, first scarcely as wide as the contiguous elytra; surface very convex, highly polished, sparsely and finely punctulate; transverse carinae 4-cuspid, cusps equal in length and equidistant, aciculate and prominent, intervals but slightly sinuate. **Legs** slender, moderate in length, black, tarsi piceous-black; first joint of posterior tarsi four-fifths as long again as the second, second and third sub-equal, fifth as long as the first. Under surface of the abdomen densely clothed with long, piceous, sub-recumbent setae.

Male.—Posterior edge of the fourth ventral segment emarginate in its middle two-fifths, emargination evenly rounded and just perceptible, contiguous surface feebly impressed for a short distance anteriorly; fifth emarginate in its middle third at apex, emargination feeble and evenly rounded, contiguous surface flattened throughout for the same width anteriorly; sixth segment sinuate at tip, sinus broad, evenly rounded, much wider than the apices, six times as wide as deep; seventh deeply emarginate at tip, bottom of emargination transverse, sides produced in long, lateral, setigerous teeth.

Female.—Sixth segment broadly truncate at tip, truncation arcuate; tip of seventh segment most irregularly, acutely, and deeply serrate.

Length 3.1–4.0 mm.

Cambridge, Massachusetts, 6; White Fish Point, Lake Superior, 3; Isle Royale, Lake Superior, 1; Marquette, Michigan, 1.

In the males the abdominal segments decrease much more rapidly than in the females.

I had already separated and described the Western specimens as distinct, when I discovered that the characters upon which the separation was based were so variable as to be comparatively valueless. The tarsal structure varies considerably in the proportional lengths of the first three joints; the intervals of the carinal cusps are also by no means constant. The sinus in the specimen from Isle Royale, Lake Superior, is much deeper than in the others, and, as a rule, the

Western specimens are smaller and more slender, with a narrower head and somewhat shorter prothorax, than those from Massachusetts.

The species of this subdivision thus far considered have cost more time and trouble in their separation and description than those in any other portion of the genus of equal extent; one or two of them may subsequently be found to be varieties, but with the present material before me I can see no other course than to consider them as species.

90. **S. congener** Mäkl.—Form very moderately robust. Pubescence moderately long, close, fine, semi-erect, very pale flavo-cinereous. **Head** moderate, robust, twice as wide as long; labrum very large; interocular surface very slightly convex, more than twice as wide as the eye; rather coarsely, very closely, and evenly punctate; bearing no evidences of the sulcations; ocular lines meeting at slightly more than two lengths in advance; antennae slightly longer than the width of head, rather slender, club distinct, dark piceous-brown, basal joints black; third joint shorter than the fourth, sixth and seventh equal in length, eighth much elongated, oval, joints of club robust, increasing in length, last two very robust; maxillary palpi dark piceous, basal joint testaceous. **Prothorax** robust, widest at the middle, where it is nearly five-sixths as wide as the head, and just perceptibly narrower than long; sides thence moderately convergent posteriorly and distinctly sinuate; anterior margin slightly longer than the posterior, equally arcuate; surface indistinctly tuberculate near each basal angle; deeply, very closely, and evenly punctate, interspaces minutely granulate; canalliculation as in *canaliculatus*, but more indistinct. **Elytra** at base as wide as or very slightly wider than the head; sides moderately divergent posteriorly, feebly arcuate and much longer than the width at base; together broadly, roundly, and moderately emarginate behind; suture rather more than one-fourth as long again as the pronotum; surface feebly impressed along the suture, more strongly so toward the base, finely, moderately closely, and very evenly punctate; interspaces flat, distinctly reticulate. **Abdominal** segments decreasing uniformly and very gradually in width, first as wide as the contiguous elytra; surface broadly convex; rather minutely, closely, and evenly punctulate, minute reticulations not evident, interspaces polished; transverse carinae 4-cuspid, cusps equal, equidistant, moderately approximate, finely aciculate. **Legs** rather short and slender, black, piceous toward tips, tarsi slender; first joint of posterior one-third as long again as the second, and scarcely three-fourths as long as the last, first four joints almost uniformly decreasing in length, fourth moderately thin and oblique, densely clothed beneath with long, cinereous setae.

Male.—Posterior edge of the fifth ventral segment just perceptibly and not measurably sinuate; sixth sinuate at apex, sinus rather more acutely rounded at the bottom than the apices, about three times as wide as deep; seventh segment rather feebly emarginate at tip.

Female.—Sixth segment evenly rounded behind.

Length 3.0–3.2 mm.

Alaska, 2.

I am not certain as to the female sexual characters, the type being damaged.

This species is very distinct from *canaliculatus*; they differ in tarsal structure, in the relative lengths of the prothorax and elytra, and, although the character of the sexual modifications is the same, they differ conspicuously in degree.

91. *S. canaliculatus* Gyll.—Form rather robust. Pubescence moderate in length, rather coarse, close, sub-recumbent, pale piceo-cinereous. **Head** large and robust, twice as wide as long; interocular surface feebly convex, twice as wide as the eye, rather finely, deeply, very closely, and evenly punctate, without a trace of sulcations or longitudinal elevation; ocular lines meeting at rather more than two lengths in advance; antennae scarcely as long as the width of head, black, slightly paler at tip, slender, club very moderate; third joint one-fifth as long again as the fourth, fourth and fifth equal, sixth and seventh equal in length, the latter thicker, eighth oval, very small, narrower than the seventh, joints of club increasing in length, the last two of equal thickness; maxillary palpi piceous-black, first joint and base of second pale testaceous. **Prothorax** robust, widest slightly before the middle, where it is three-fourths as wide as the head, and distinctly narrower than long; sides thence moderately convergent posteriorly and slightly sinuate; anterior margin very slightly longer than the posterior, equally arcuate; surface nearly evenly convex, very closely, finely, deeply, and evenly punctate; canalication narrow, equal in width throughout, as long as the pronotum. **Elytra** at base slightly narrower than the head, and but very slightly wider than the prothorax; sides moderately divergent posteriorly, slightly longer than the width at base, and feebly arcuate; together broadly and moderately emarginate behind; suture about equal in length to the pronotum; surface convex, narrowly and feebly impressed along the suture; deeply, closely, and evenly punctate; punctures very seldom coalescing; interspaces narrow, convex, minutely reticulate. **Abdominal** segments decreasing uniformly and very gradually in width, first as wide as the contiguous elytra; surface broadly convex; finely, very closely, and evenly punctulate; transverse carinae 4-cuspid, cusps nearly equal, rather approximate, finely aciculate. **Legs** moderate, black above, piceous-black beneath; first joint of the posterior tarsi three-fourths as long again as the second, as long as the fifth, joints two to four decreasing uniformly and rapidly in length, fourth thin and oblique, having long cinereous setae beneath. Body winged.

Male.—Posterior edge of the fifth ventral segment very feebly emarginate in its middle fourth, emargination evenly rounded and just perceptible; sixth sinuate at apex, sinus very broad and evenly rounded throughout, about eight times as wide as deep, surface piceous-black.

Female.—Sixth ventral segment broadly and evenly rounded behind.

Length 3.2-3.4 mm.

Cambridge, Massachusetts, 2; White Fish Point, Lake Superior, 2; Lake Superior (locality unknown), 1; Grimsby, Ontario, 3.

The above description seems to agree in all essential points with that given by Erichson for the European *caudiculatus*, but having no specimens of the latter for comparison, I cannot state that the identification is conclusive.

92. *S. carolinæ* n. sp.—Form rather slender. Pubescence moderately close, extremely long, coarse, erect, pale fuscous in color. **Head** rather small, not twice as wide as long; interocular surface flat, coarsely and closely punctate, two and one-half times as wide as the eye; longitudinal elevation very slight but rather abruptly limited at the sides; antennae slender, very slightly longer than the width of head, fuscous, coarsely setose, club distinct; third joint one-third as long again as the fourth, joints six and seven equal in length, ten and eleven equal in thickness, and notably longer than the ninth, eleventh much longer than the tenth, acuminate at tip; maxillary palpi flavo-testaceous, slightly darker toward the tip. **Prothorax** widest before the middle, where it is four-fifths as wide as the head, and one-sixth narrower than long, sides thence gently convergent posteriorly, and nearly straight; surface having an irregular longitudinal elevation at each side, and a slight transverse depression just behind the anterior margin, coarsely and somewhat irregularly punctate; punctures deeply impressed; interspaces generally equal to about one-half their width, highly polished. **Elytra** at base just perceptibly wider than the head; sides almost parallel, rather strongly arcuate toward the apices; together broadly and very feebly emarginate behind; suture about one-sixth as long again as the pronotum; surface of each slightly swollen at the base near the middle; coarsely, somewhat regularly punctate; punctures deeply impressed; interspaces one-half as wide, highly polished. **Abdominal** segments decreasing extremely gradually in width, first nearly as wide as the elytra, border moderate; tely prominent; surface convex, highly polished, coarsely punctulate; transverse carinae obscurely cusped and finely serrulate, cusps very short, rounded at tip. **Legs** rather short and stout, rufo-testaceous, tarsi paler; first joint of posterior two-thirds as long again as the second, next three joints gradually decreasing in length. Under surface of the abdomen more finely punctulate, black, terminal segments paler.

Male.—Posterior edge of the sixth ventral segment broadly emarginate, emargination evenly rounded, eight times as wide as deep; seventh deeply emarginate at apex, with the sides produced denticulately.

Female.—Sixth segment broadly rounded behind.

Length 2.8–3.0 mm.

Southern States, 3; Selma, Alabama, 1; Tallahassee, Florida, 1.

The coarsely herissate vestiture of this species renders it very distinct.

93. *S. ageus* n. sp.—Form rather robust. Pubescence somewhat short, cinereous, evenly distributed, sub-recumbent, fine, and rather close. **Head** moderate, twice as wide as long; interocular surface more than twice as wide as the eye, feebly convex; sulcations almost obsolete; punctures very deep,

close, moderate in size, round, not coalescent, evenly distributed; interspaces feebly shining; ocular lines meeting at one and one-half lengths in advance; antennae somewhat longer than the width of head, rather slender, piceous-black, club moderate; third joint one-half longer than the fourth, fourth and fifth sub-equal, sixth distinctly longer and less robust than the seventh, eighth slightly longer than wide, as broad as the seventh, regularly oval, joints of club increasing very slightly in length, last two notably more robust than the ninth and equal in thickness; maxillary palpi moderate in length, first joint piceo-testaceous, remainder piceous-black. **Prothorax** robust, widest slightly before the middle, where it is seven-eighths as wide as the head, and very slightly narrower than long; sides thence feebly and evenly arcuate anteriorly, rather more strongly convergent posteriorly and nearly straight; anterior margin slightly longer than the posterior, equally arcuate; surface very evenly convex, finely, very closely, and evenly punctate; punctures round, not coalescent, deeply impressed; interspaces feebly convex, scarcely one-third as wide as the punctures, minutely reticulate and somewhat feebly shining. **Elytra** at base nearly as wide as the head; sides moderately divergent posteriorly, slightly longer than the width at base, distinctly and evenly arcuate; together broadly, roundly, and strongly emarginate behind; suture one-fourth longer than the pronotum; surface impressed on the suture at the base, and very feebly so near the humeri; evenly, rather finely, and closely punctate; punctures round, deeply impressed; interspaces generally two-thirds as wide as the punctures, slightly convex and minutely reticulated. **Abdominal** segments decreasing very gradually in width, first as wide as the contiguous elytra; sides feebly arcuate; border distinct on all the segments; surface very coarsely, moderately closely, and evenly punctate, much more finely so posteriorly; transverse carinae 4-cuspid, middle cusps very closely approximate, shorter than the lateral, finely acuminate; lateral large, finely acuminate, sides straight. **Legs** rather short and slender, piceous-black; first joint of the posterior tarsi twice as long as the second, second much longer than the third.

Male.—Unknown.

Female.—Sixth ventral segment very broadly angulate behind.

Length 3.0 mm.

Cambridge, Massachusetts, 2.

The body is of a grayish-black color; the species is distinguished by the relative shortness of the middle cusps of the abdominal carinae

94. **S. pudicus** n. sp.—Form very moderately robust. Pubescence rather short, coarse, and sparse, semi-erect, plumbeo-cinereous. **Head** moderate, slightly more than twice as wide as long; interocular surface two and one-half times as wide as the eye, distinctly convex; equally trilobed by the excessively feeble sulcations; intermediate surface evenly and broadly convex, crest broadly and very sparsely punctate; punctures toward the sides very closely crowded, polygonal, shallow, rather small and sub-variolate; ocular lines meeting at one and one-half lengths in advance; antennae distinctly longer than the width of head, slender, basal joint black, remainder piceous-brown, slightly paler toward the tip, club distinct; joints three to

six uniformly and rapidly decreasing in length, six and seven sub-equal in length, the latter one-half as thick again, eighth as broad as the seventh, sub-triangular, joints of club increasing in length, last two of equal thickness; maxillary palpi dark piceous-brown, first joint and base of the second much paler, piceo-testaceous. **Prothorax** arcuately, evenly, and moderately rapidly increasing in width to a point just perceptibly in advance of the middle, where it is four-fifths as wide as the head and slightly narrower than long; sides thence moderately convergent posteriorly and feebly sinuate; anterior and posterior margins equal in length, the former very slightly the more arcuate; surface feebly and minutely tuberculate near the basal angles, transversely and very feebly impressed just behind the vertex; punctures small, rounded, and irregularly distributed, more crowded toward the base and apex. **Elytra** at base as wide as the head; sides very moderately divergent posteriorly, much longer than the width at base and rather strongly arcuate, more particularly so posteriorly; together broadly, roundly, and strongly emarginate behind; suture one-third as long again as the pronotum; surface convex, narrowly impressed along the suture, more broadly and strongly so toward the base; punctures round, feebly impressed, and evenly distributed, except in the basal regions, where they are closely crowded; interspaces generally as wide as the punctures, distinctly reticulated, feebly convex, shining. **First two abdominal segments** equal in width, very slightly narrower than the contiguous elytra; surface coarsely, feebly, and somewhat distantly punctulate at the base, becoming much more finely so toward the tip; transverse carinae 4-cuspid, cusps nearly equal in length, somewhat obscurely defined, though rather long. **Legs** short and slender, dark piceous-brown; first joint of the posterior tarsi three-fourths as long again as the second, equal in length to the last, second somewhat longer than the third, fourth very oblique, fifth very slender at the base.

Male.—Posterior edge of the fifth ventral segment emarginate in its middle fifth, emargination evenly rounded, and nearly ten times as wide as deep, contiguous surface cylindrically and rather feebly impressed throughout anteriorly; sixth broadly and transversely truncate at the apex.

Female.—Sixth segment broadly and evenly rounded behind.
Length 2.5–2.7 mm.

White Fish Point, Lake Superior, 2.

I had separated the male of this species under another name, but afterwards concluded to unite the two specimens, as there might remain a doubt as to their distinctness, due to the difference of sex. The male differs from the female in the much coarser and more even punctuation of the elytra and pronotum, in the pubescence, which is very much longer and denser, and in the structure of the antennae, the male having the fourth and fifth joints equal in length. The description is drawn from the female.

95. **S. minor** n. sp.—Form slender. Pubescence fine, moderately abundant, rather short and recumbent, cinereous in color. **Head** moderate, twice as wide as long; interocular surface very slightly convex, more than twice

as wide as the eye; coarsely, closely, and sub-variately punctate; longitudinal elevation moderately developed; ocular lines meeting at three lengths in advance; antennae slender, much longer than the width of head, dark piceous, club distinct and paler in color; third joint one-half as long again as the fourth, fourth and fifth equal, also the sixth and seventh, joints of club gradually increasing in thickness and length; maxillary palpi uniformly dark piceous. **Prothorax** robust, widest at the middle, where it is just perceptibly narrower than long and but little wider than the interocular surface; sides thence feebly convergent posteriorly and very slightly sinuate; surface evenly convex, rather evenly punctured; punctures sub-variolate and shallow, wider than the interspaces which are moderately shining; anterior and posterior margins equal in length, the former slightly the more arcuate. **Elytra** at base as wide as the head; sides very slightly divergent and arcuate; together broadly and distinctly emarginate behind; suture one-sixth as long again as the pronotum; surface strongly and evenly convex, very evenly punctate; punctures sub-variolate, shallow, broader than the interspaces, which exhibit a minutely granular texture. **Abdominal** segments decreasing regularly and rather rapidly in width, first distinctly narrower than the contiguous elytra; surface convex, minutely granulate, finely punctulate; border rather narrow; transverse carina 4-cuspid, cusps extremely short, rudimentary, and expanded toward tip. **Legs** dark brownish-piceous, moderate in length, joints of tarsi cylindrical; first joint of posterior one-half as long again as the second, next three uniformly decreasing in length. Under surface of the abdomen minutely granulate and finely punctulate.

Male.—Surface of fifth ventral segment feebly impressed in the middle fourth of its posterior half, coarsely pubescent, posterior edge broadly and almost imperceptibly emarginate; sixth segment broadly truncate at tip; seventh bearing at apex two well-marked lateral teeth, and upon each a long coarse seta, longer than the breadth at tip.

Female.—Unknown.

Length 2.3 mm.

Detroit, Michigan, 2.

The sexual characters in this species are very feebly developed.

96. **S. rigidus** n. sp.—Form moderately robust. Pubescence cinereous, rather short, and moderately close, nearly uniform throughout. **Head** moderate, more than twice as wide as long; interocular surface flat, two and one-half times as wide as the eye, evenly and rather closely punctate; longitudinal elevation rather prominent, raised above the general level of the eyes; ocular lines meeting at about two lengths in advance; antennae nearly black, coarsely setose, rather slender, a little longer than the width of head, club distinct; third joint one-third as long again as the fourth, joints three to seven gradually decreasing in length, ten and eleven nearly equal, much thicker and longer than the ninth; first joint of the maxillary palpi flavo-testaceous, next two nearly black. **Prothorax** three-fourths as long again as the head, widest a little before the middle; sides thence gradually convergent posteriorly and very feebly sinuate; anterior and posterior margins equal in length, equally and rather strongly arcuate; length but slightly

greater than the width; surface evenly convex, rather closely and somewhat unevenly punctate; interspaces polished. **Elytra** at base a little wider than the head; together broadly, evenly, and rather strongly emarginate anteriorly and posteriorly; sides very moderately divergent and arcuate; humeral angles well developed; surface evenly convex and punctate; interspaces polished and about equal in width to the punctures; suture one-fourth as long again as the pronotum. **Abdominal** segments decreasing very gradually in width posteriorly; margin rather narrow; surface finely and rather closely punctulate; transverse carinae 4-cuspid, intervals nearly straight, cusps very short, obscure at tip; first segment as wide as the elytra at base. **Legs** rather stout, dark fusco-piceous, tarsi short; first joint of the posterior three-fourths as long again as the second. Under surface piceous-black; abdomen finely and closely punctulate, clothed with long recumbent pubescence.

Male.—Posterior edge of the fifth ventral segment almost imperceptibly sinuate; sixth segment broadly and very feebly sinuate at apex, almost transversely truncate.

Female.—Sixth segment broadly and somewhat unevenly rounded behind, being just perceptibly produced at the immediate vertex.

Length 2.3–2.8 mm.

Cambridge, Massachusetts, 41.

97. **S. incertus** n. sp.—Form moderately robust. Pubescence very sparse and fine, moderately long, pale flavo-cinereous. **Head** moderate, slightly more than twice as wide as long; interocular surface very slightly convex, two and one-half times as wide as the eye; somewhat coarsely, very closely, and evenly punctate, punctures shallow, sub-variolate, and irregularly polygonal; sulcations very slightly apparent; ocular lines meeting at two and one-half lengths in advance; antennae rather slender, a little longer than the width of head, fuscous, basal joint darker, club distinct; third joint one-third as long again as the fourth, fourth and fifth equal in length, sixth almost imperceptibly shorter, eighth sub-globular, joints of club successively and uniformly increasing in thickness and length; first joint of the maxillary palpi flavo-testaceous, second and third uniform in color, fusco-testaceous. **Prothorax** widest at the middle, where it is very slightly wider than the interocular surface and very slightly narrower than long; sides thence very moderately convergent posteriorly and straight; anterior margin slightly longer and more arcuate than the posterior; surface regularly convex, very slightly and transversely depressed just behind the anterior margin; very closely, rather evenly, and coarsely punctate; interspaces very narrow. **Elytra** at base as wide as the head; sides almost parallel, slightly and nearly evenly arcuate; together very broadly and feebly emarginate posteriorly; suture nearly one-fourth as long again as the pronotum; surface almost evenly convex, rather coarsely punctate; punctures impressed; interspaces one-half as wide, shining. **First** three abdominal segments nearly equal in width, and very slightly narrower than the contiguous elytra; border rather narrow; surface convex, shining, finely punctulate; transverse carinae 4-cuspid, cusps small and somewhat rudimentary. Under surface of the abdomen dark piceous-brown, finely punctulate, minutely granulate. **Legs**

moderate, fuscous; first joint of the posterior tarsi three-fourths as long again as the second, second notably longer than the third.

Male.—Unknown.

Female.—Posterior edge of the sixth ventral segment evenly rounded, but slightly produced in the middle.

Length 2.5 mm.

Nebraska, 1.

98. ***S. parallelus*** n. sp. (Schwarz MS.).—Form moderately slender. Pubescence exceedingly sparse and short, almost invisible, except on the head and abdomen, cinereous. **Head** moderate, scarcely twice as wide as long; interocular surface two and one-half times as wide as the eye; densely, rather finely, and evenly punctate; equally trilobed by the distinct, though rounded sulcations; ocular lines meeting at about one length in advance; antennae slightly longer than the width of head, dark piceous-black, club moderate; third joint one-third as long again as the fourth, fourth and fifth equal, eighth globular, joints of club gradually increasing in thickness and length; maxillary palpi dark piceous-brown, very slightly paler toward the base. **Prothorax** widest just before the middle, where it is nearly five-sixths as wide as the head; sides thence convergent posteriorly and nearly straight; anterior and posterior margins equal in length, the former much the more arcuate; surface rather evenly convex, closely, somewhat irregularly, and variolately punctate; interspaces seldom wider than the punctures, shining; a shallow medial depression extends longitudinally along the middle half, widest at the middle. **Elytra** at base as wide as the head, sides slightly divergent posteriorly and nearly straight; broadly and rather strongly emarginate behind, and almost equally so at the base; suture scarcely perceptibly longer than the pronotum; surface coarsely, somewhat closely and unevenly punctate; punctures slightly variolate; interspaces shining. **First** three abdominal segments nearly equal in width, and as wide as the elytra; border moderate; surface polished, punctulate, more finely and closely so posteriorly; transverse carinae unicuspid, cusp very slender and aciculate. **Legs** moderate, dark castaneous; first joint of the posterior tarsi two-thirds as long again as the second, second distinctly longer than the third. Under surface of the abdomen finely and rather closely punctulate.

Male.—Posterior edge of the fifth ventral segment sinuate, sinus feeble, and one-third as wide as the segment, surface feebly impressed through the same width anteriorly, depression rather densely pilose; sixth segment sinuate at apex, sinus narrow, about twice as wide as deep, surface convex.

Female.—Sixth segment broadly and very evenly rounded behind.

Length 2.7–2.8 mm.

Cambridge, Massachusetts, 7.

99. ***S. noctivagus*** n. sp.—Form moderately slender. Pubescence as in *montanus*, but more dense. **Head** robust, scarcely twice as wide as long; interocular surface flat, twice as wide as the eye; coarsely and variolately punctate; interspaces acute at the sides, equal in width to the punctures

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along the middle; longitudinal elevation broad, evenly convex, prominent; ocular lines meeting at two lengths in advance; antennae slender, somewhat longer than the width of head, piceous-black, club very slender; third joint three-fourths as long again as the fourth, fourth and fifth sub-equal, sixth and seventh sub-equal, shorter, joints of club elongated, nearly equal in length; maxillary palpi dark fusco-piceous throughout. **Prothorax** very robust, widest before the middle, where it is four-fifths as wide as the head, and distinctly wider than long; sides strongly areolate throughout, except at the posterior margin, where they become very feebly sinuate; anterior and posterior margins equal in length, the former the more arcuate; surface evenly convex; rather finely, closely, and evenly punctate; punctures round and variolate; interspaces flat, one-third as wide as the punctures, moderately shining, minutely reticulated; the canaliculation is in the form of a faint longitudinal impression, beginning just before the middle, and one-half as long as the pronotum. **Elytra** at base slightly narrower than the head; sides moderately divergent posteriorly and feebly arcuate; just perceptibly longer than the width at base; together broadly and feebly emarginate behind; suture one-fifth as long again as the pronotum; surface feebly impressed along the suture; rather finely and evenly punctate; interspaces generally one-half as wide as the punctures, shining. **First** three abdominal segments equal in width, and as wide as the contiguous elytra; border moderate; surface feebly convex, finely and somewhat closely punctulate; transverse carinae not cusped. **Legs** rather long and slender, piceous-black throughout; first joint of the posterior tarsi four-fifths as long again as the second, second as long as the third and fourth together. Under surface of abdomen black throughout.

Male.—Posterior edge of the fifth ventral segment sinuate, sinus very short and distinct, four times as wide as deep, apices very broad and nearly transverse; surface contiguous to sinus, flattened anteriorly, but scarcely impressed, its border densely and coarsely ciliate; sixth segment narrow and elongated, sinuate at apex, sinus nearly as deep as wide, slightly more acute in curvature than the apices; seventh very broadly and feebly emarginate at apex.

Female.—Posterior edge of sixth segment very broadly angulate at apex. Length 3.3 mm.

New Hampshire, probably White Mountains, 2.

The description of this very distinct species has been drawn from the female, the male being in an imperfect condition. It has a superficial resemblance to *difficilis*, but the absence of cusps from the abdominal carinae, well developed in the latter, will serve to distinguish them.

100. **S. luculentus** n. sp.—Form very moderately robust. Pubescence long, rather close, fine, sub-recumbent, cinereous. **Head** moderate, slightly more than twice as wide as long; interocular surface very feebly depressed, distinctly more than twice as wide as the eye; equally trilobed by the very feeble rounded sulcations; intermediate surface nearly flat; punctures very

small, widely separated, round, and evenly distributed; interspaces nearly flat; ocular lines meeting at fully three lengths in advance; first joint of antennae black, second piceous-black and more slender; first joint of maxillary palpi translucent, pale piceo-testaceous, second much darker. **Prothorax** arenately, evenly, and gradually increasing in width to a point slightly in advance of the middle, where it is distinctly narrower than long, and three-fourths as wide as the head; sides thence moderately convergent and evenly sinuate; anterior margin slightly shorter and more arcuate than the posterior; surface nearly evenly convex, finely, rather distantly, and very evenly punctate; interspaces scarcely as wide as the punctures, nearly flat, highly polished. **Elytra** at base just perceptibly narrower than the head; sides moderately divergent posteriorly, slightly longer than the width at base and rather strongly arcuate; together broadly, evenly, and feebly emarginate behind; suture one-third as long again as the pronotum; surface rather convex, strongly and roundly impressed along the suture, and feebly so near the outer apical angles; sutural impression rapidly widening toward the base; punctures rather small, round, feebly impressed and very evenly distributed; interspaces as wide as the punctures, slightly convex, and very highly polished. **First** three abdominal segments equal in width, and as wide as the contiguous elytra; surface broadly convex, finely, feebly, and evenly punctulate; transverse carinae apparently not cusped. **Legs** short and slender, piceous-black, slightly paler beneath; first joint of the posterior tarsi scarcely one-fourth as long again as the second, second distinctly longer than the third, fourth narrow and very oblique, fifth longer than the first, very narrow at the base, and widest near the distal extremity.

Male.—Unknown.

Female.—Sixth ventral segment very broad and very broadly rounded behind, transversely truncated through a small extent at the immediate apex. Length 2.8 mm.

Stockton, California, 1.

The antennae are missing, with exception of the first two joints; also the third joint of the maxillary palpi.

101. **S. juvenicus** n. sp.—Form rather slender. Pubescence long, subrecumbent, close, rather coarse, prominent, pale fulvo-cinereous, very dense on the abdomen. **Head** moderate, twice as wide as long; interocular surface flat, twice as wide as the eye, evenly, rather finely, and somewhat distantly punctate; longitudinal elevation narrower than the lateral portions, feebly and evenly convex, crest broadly impunctate; interspaces very highly polished; eyes small, very convex, clothed thickly with rather long, erect setae; ocular lines meeting at somewhat more than one length in advance; antennae as long as the width of head, rather slender, club distinct, piceous-brown; third joint one-third as long again as the fourth, fourth slightly longer than the fifth, sixth and seventh equal and abruptly shorter, eighth very slightly elongated, ninth as wide as long, much smaller than the tenth, tenth and eleventh equal in width, the latter slightly the longer, and obtuse at tip; maxillary palpi moderate, pale piceous-brown, first joint paler and testaceous. **Prothorax** widest at the middle, where it is four-fifths as wide

as the head, and slightly narrower than long; sides thence almost equally convergent anteriorly and posteriorly, slightly arcuate in the former, and feebly sinuate in the latter direction; anterior margin very slightly longer and more arcuate than the posterior; surface very evenly convex, rather finely, distantly, and evenly punctate; punctures rounded and deeply impressed; interspaces feebly convex and very highly polished. **Elytra** at base distinctly narrower than the head; sides rather strongly divergent posteriorly, much longer than the width at base, and feebly arcuate, much more strongly so toward the apices, almost straight near the base; together broadly, roundly, and very feebly emarginate behind; suture from one-fourth to one-fifth as long again as the pronotum; surface rather depressed, very even: finely, very distantly, and rather evenly punctate; punctures impressed; interspaces very feebly convex and having an extremely high polish. **First two abdominal segments** equal in width, and as wide as the contiguous elytra, the remainder decreasing uniformly and very gradually in width; surface very broadly convex, highly polished, coarsely, evenly, and distantly punctulate; transverse carinae not cusped. **Legs** rather long and slender, dark rufo-piceous above, paler beneath; first joint of the posterior tarsi three-fifths as long again as the second, slightly longer than the fifth, second slightly longer than the third, fourth much shorter, fifth very narrow at the base, becoming very thick at tip.

Male.—Fifth ventral segment not appreciably modified; sixth broadly and transversely truncate at apex, truncation rounded at the sides, and giving a mere suspicion of sinuosity in the middle.

Female.—Unknown.

Length 2.1 mm.

Detroit, Michigan, 1.

The sexual characters are extremely feeble; the species is otherwise well marked.

102. ***S. pauperculus*** n. sp.—Form moderately slender. Pubescence long, close, rather coarse, semi-erect, and very pale flavo-cinereous, prominent. **Head** moderate, rather more than twice as wide as long; interocular surface nearly flat, twice as wide as the eye; punctures rather small, deep, close, evenly distributed, and irregularly polygonal, somewhat confluent anteriorly; interspaces narrow, very convex, and highly polished; longitudinal elevation somewhat narrower than the lateral portions, rather acutely ridged; ocular lines meeting at about two lengths in advance; first two joints of antennae piceous-brown, sub-equal: eyes rather short, very convex, clothed with very short, erect setae; maxillary palpi rather short, last joint strongly clavate, pale piceo-testaceous throughout. **Prothorax** arcuately and rather rapidly widening to a point nearly three-fourths the length posteriorly, where it is three-fourths as wide as the head and distinctly narrower than long; sides thence moderately convergent and sinuate; anterior margin much shorter and more arcuate than the posterior; surface nearly evenly convex, with an extremely feeble tuberculiform swelling near each basal angle, and a very feeble transverse impression just behind the anterior margin; rather coarsely, closely, and evenly punctate; interspaces narrow, convex,

and highly polished. **Elytra** at base slightly narrower than the head; sides feebly divergent posteriorly, much longer than the width at base, very feebly arcuate, most strongly so posteriorly; together broadly, roundly, and moderately emarginate behind; suture rather more than one-fourth as long again as the pronotum; surface very feebly impressed along the suture, more strongly so toward the base; rather finely, moderately closely, and evenly punctate; punctures round and impressed, closely crowded and polygonal near the inner basal angles and along the suture, but apparently never coalescent. **Abdominal** segments decreasing uniformly and somewhat rapidly in width, first distinctly narrower than the contiguous elytra; surface rather convex, coarsely, and rather closely punctulate, becoming more finely so toward the tip; apices of the segments impunctate; transverse carinae not cusped. **Legs** rather long, dark fuscous above, much paler fusco-testaceous beneath, femora stout; first joint of the posterior tarsi two-thirds as long again as the second, distinctly shorter than the fifth, second much longer than the third, third slightly longer than the fourth, fifth slightly narrower at the base than at the apex.

Male.—Fifth ventral segment not appreciably modified; sixth very broadly sinuate at apex, sinus occupying nearly the entire apical width, evenly rounded throughout, from ten to twelve times as wide as deep; seventh very broad at apex, where it is moderately emarginate, bottom of emargination transverse.

Female.—Unknown.

Length 2.2 mm.

Locality uncertain.

The antennae are missing. The species is quite distinct and is probably from Michigan.

103. **S. haplus** n. sp.—Form slender. Pubescence short, sparse, and moderately coarse, pale flavo-cinereous on the head, pronotum, and elytra, shorter, more recumbent, and cinereous on the abdomen. **Head** moderate, twice as wide as long; interocular surface flat, nearly two and one-half times as wide as the eye; closely and rather coarsely punctate; sulcations scarcely visible; punctures sub-variolate; antennae about equal in length to the width of head, rather slender, dark blackish-piceous, coarsely setose, club moderate or small; third joint one-fourth as long again as the fourth, joints three to six uniformly and gradually decreasing in length, last two joints much larger than the ninth, equal in thickness, eleventh acuminate at tip. **Prothorax** widest just behind the middle, where it is notably wider than the interocular surface, and slightly narrower than long; sides thence moderately convergent posteriorly and strongly sinuate; anterior and posterior margins equal in length, equally though feebly arcuate; surface evenly convex, closely and evenly punctate; punctures small, regular, and somewhat variolate; interspaces one-half as wide as the punctures, polished. **Elytra** at base just perceptibly narrower than the head; sides but very slightly divergent posteriorly, straight in the middle three-fourths; together broadly and feebly emarginate behind; suture one-sixth as long again as the pronotum; surface rather evenly convex and evenly punctate; punctures similar to those of

the pronotum; interspaces equal to them in width, polished. **Abdominal** segments decreasing regularly and very gradually in width, first as wide as the contiguous elytra; border prominent; surface convex, polished, finely punctulate; transverse carinae not cusped. **Legs** dark brownish-black, moderate in length; first joint of the posterior tarsi one-half as long again as the second. Under surface of the abdomen shining, very finely granulate, finely and somewhat distantly punctulate.

Male.—Unknown.

Female.—Sixth ventral segment evenly rounded behind.

Length 2.9 mm.

Detroit, Michigan, 2.

104. ***S. enodis*** n. sp.—Form moderately slender. Pubescence rather long, recumbent, cinereous, quite close and evenly distributed. **Head** moderate, twice as wide as long; interocular surface nearly flat, rather closely and finely punctate, two and one-half times as wide as the eye; longitudinal elevation obsolete; ocular lines meeting at two lengths in advance; antennae piceous-black, equal in length to the width of head, slender, club distinct; third joint equal in length to the fourth, last two joints equal in size, ninth much smaller; first joint of maxillary palpi testaceous, second and third black. **Prothorax** widest at the middle, where it is four-fifths as wide as the head; sides thence convergent posteriorly and sinuate; very slightly longer than wide; anterior and posterior margins equal; surface evenly convex and finely punctate; interspaces generally narrower than the punctures, shining. **Elytra** at base nearly as wide as the head; sides feebly divergent posteriorly and slightly arcuate; together broadly and feebly emarginate behind, more strongly so at the base; suture one-eighth as long again as the pronotum; surface evenly convex, with the exception of a scarcely perceptible depression along the suture; rather finely punctate; punctures shallow; interspaces narrower anteriorly, and broader posteriorly than the width of the punctures, shining. **First** four abdominal segments of equal width, and as wide as the elytra; border very broad; surface shining, finely and rather closely punctulate; transverse carinae not cusped. **Legs** dark blackish-piceous, rather slender, tarsi moderately robust; first joint of posterior three-fourths as long again as the second, second scarcely perceptibly longer than the third. Under surface of abdomen very finely and closely punctulate.

Male.—Unknown.

Female.—Posterior edge of the sixth ventral segment broadly and evenly rounded behind.

Length 2.8 mm.

Veta Pass, Colorado, 1.

I found this species labeled *S. morio* Grav., but as it differs in several important particulars from that species, as described by Kraatz—notably in the structure of the antennae and tarsi—I have concluded to describe it as new.

105. **S. dives** n. sp.—Form rather robust. Pubescence somewhat long, sub-recumbent, coarse, close, cinereous, and somewhat conspicuous. **Head** small, robust, distinctly less than twice as wide as long; interocular surface broadly and feebly depressed, two and one-half times as wide as the eye; equally trilobed by the very feeble, rounded sulcations; intermediate surface evenly and very feebly convex; punctures very close, round, and evenly distributed; antennae somewhat longer than the width of head, rather robust, coarsely and sparsely setose, dark piceous-brown, basal joint black and distinctly more robust than the second, club distinct; third joint one-third as long again as the fourth, fourth and fifth equal, sixth somewhat shorter than the seventh, sub-equal in thickness, eighth as robust as the seventh, nearly twice as long as wide, joints of club increasing uniformly and very gradually in length and thickness; maxillary palpi rather slender, piceous-black, basal joint piceo-testaceous. **Prothorax** arcuately, evenly, and very gradually widening to the middle, where it is more than five-sixths as wide as the head, and distinctly narrower than long; sides thence moderately convergent and rather feebly sinuate; anterior margin longer and more arcuate than the posterior; surface evenly convex, finely and evenly punctate; interspaces nearly as wide as the punctures, nearly flat, highly polished. **Elytra** at base as wide as the head; sides rather feebly divergent posteriorly, much longer than the width at base, and somewhat feebly arcuate, most strongly so posteriorly; together broadly and very feebly emarginate behind; suture one-fourth as long again as the pronotum; surface finely, feebly, and evenly punctate; interspaces much narrower toward the base, generally feebly convex and highly polished. **Abdominal** segments decreasing uniformly and very gradually in width, first nearly as wide as the contiguous elytra; surface very finely, somewhat closely and evenly punctulate; transverse carinae not cusped. **Legs** moderate, piceous-black throughout; first joint of the posterior tarsi one-half as long again as the second, much shorter than the fifth, joints two to four uniformly and rapidly decreasing in length. Body winged.

Male.—Posterior edge of the fifth ventral segment feebly emarginate in its middle third, emargination evenly rounded and scarcely measurable, contiguous surface very feebly flattened; sixth sinuate at apex, sinus narrower and much more acutely rounded than the apices, sides nearly straight, slightly more than three times as wide as deep; seventh segment transversely truncate at tip.

Female.—Unknown.

Length 3.1 mm.

Northern California, 1.

106. **S. subgriseus** n. sp. (Schwarz MS.).—Form rather slender, sides parallel. Pubescence slightly more plentiful on the head and elytra, throughout rather long, flavo cinereous in color. **Head** moderate, a little more than twice as wide as long; interocular surface nearly flat, rather coarsely punctate; punctures distinct and setigerous; longitudinal elevation broad and scarcely visible; ocular lines meeting at one length in advance; antennae short, equal in length to the width of head, third joint one-third as long again as the fourth, joints four and five of equal length, club well developed,

tenth and eleventh joints longer and thicker than the ninth, equal, of a dark fuscous tint; first joint of the maxillary palpi dark flavo-testaceous, second and third dark blackish-fuscous. **Prothorax** short and robust, three-fourths as long again as the head, widest before the middle, where it is nearly as wide as long; sides thence converging very gradually and very feebly sinuate; posterior margin slightly narrower and more areolate than the anterior; surface evenly convex, rather finely punctate; interspaces about equal in width to the punctures. **Elytra** at base equal in width to the head; together rather deeply emarginate at the base, very broadly and feebly so behind; sides but slightly divergent, areolate; suture one-fifth as long again as the pronotum; surface rather convex; punctures rather fine, impressed, setigerous; interspaces slightly greater than the width of the punctures, highly polished. **Abdominal** segments decreasing very gradually in width, first almost as wide as the elytra; surface very sparsely and finely punctate, shining; border of first four segments moderate; transverse carinae not cusped. **Legs** piceous-black, tarsi a little paler, rather robust; first joint of the posterior one-half as long again as the second. Under surface black, abdomen very finely and rather closely punctate.

Male.—Posterior edge of the fifth ventral segment very feebly sinuate, sinus one-third as wide as the segment, surface evenly convex; sixth sinuate at apex, sinus one-half as wide as the segment, twice as wide as deep, contiguous surface feebly and longitudinally impressed.

Female.—Sixth segment broadly and evenly rounded behind.

Length 2.8 mm.

California, 1; British Columbia, 15.

107. **S. ferricola** n. sp.—Form rather robust. Pubescence erect, rather short, fine, moderately abundant, cinereous. **Head** scarcely twice as wide as long; interocular surface a little more than twice as wide as the eye; nearly flat, very closely, finely, and regularly punctate; punctures variolate; nearly equally trilobed by the shallow sulcations; ocular lines meeting at nearly three lengths in advance; antennae slender, dark reddish-black, coarsely setose, third joint one-third as long again as the fourth, joints four and five equal in length; first joint of maxillary palpi dark testaceous, second and third black. **Prothorax** widest slightly before the middle, where it is five-sixths as wide as the head, and almost as wide as long; sides thence convergent posteriorly and straight; posterior margin slightly shorter than the anterior; equally, feebly arcuate; surface evenly convex, closely, somewhat evenly and finely punctate; punctures sub-variolate; interspaces narrower, moderately lustrous. **Elytra** at base wider than the head; sides almost imperceptibly divergent posteriorly, and very slightly arcuate; together broadly emarginate anteriorly, and very broadly and more strongly so posteriorly; suture nearly one-fourth as long again as the pronotum; surface evenly convex, rather evenly and finely punctate; punctures feebly impressed, somewhat wider than the interspaces, which are lustrous. **First** three abdominal segments as wide as the elytra at base; border strong; surface rather flat, and very finely punctulate; transverse carinae not cusped. **Legs** moderate and rather slender, piceous-black; first joint of the posterior tarsi two-thirds

as long again as the second, second much longer than the third. Under surface of the abdomen shining and somewhat more coarsely punctulate than the upper.

Male.—Posterior edge of the sixth ventral segment sinuate, sinus exceedingly feeble, one-third as wide as the segment.

Female.—Unknown.

Length 2.9 mm.

Lake Tahoe, Nevada, 1.

The antennal clubs are missing in the only known specimen.

108. *S. laundulus* n. sp.—Form moderately robust. Pubescence rather short, cinereous, more abundant on the head and elytra. **Head** small, three-fourths as wide again as long; interocular surface very moderately excavated, strongly bisulcate, three times as wide as the eye; finely and variolately punctate; interspaces wider than the punctures, shining; longitudinal elevation as wide as the eye; ocular lines meeting at one length in advance; antennae longer than the width of head, piecous-black, rather slender, club large; third joint twice as long as the fourth, fourth and fifth equal, sixth and seventh equal, much shorter, eighth almost globular, joints of club very gradually increasing in length, tenth slightly thickest; palpi and oral organs entirely piecous-black. **Prothorax** very robust, widest a little before the middle, where it is four-fifths as wide as the head; sides thence convergent posteriorly and slightly sinuate; surface with a broad transverse impression just behind the anterior margin, and a rather deep oblique impression on each side near the middle; very finely punctate; punctures very shallow and variolate; interspaces wider than the punctures, shining; anterior margin slightly longer than the posterior. **Elytra** at base broadly and rather deeply emarginate, slightly wider than the head; together broadly and just perceptibly emarginate posteriorly; suture one-fifth as long again as the pronotum; sides very slightly divergent posteriorly and moderately arcuate; surface of each with a broad, irregular, and longitudinal elevation along the middle, punctate like the pronotum. **Abdominal** segments decreasing rather rapidly in width, first as wide as the contiguous elytra; border very strong; surface shining and very finely punctate; transverse carinae not cusped. Under surface of the abdomen very finely and rather closely punctate. **Legs** black, rather long and slender; first joint of the posterior tarsi twice as long as the second.

Male.—Posterior edge of the sixth ventral segment very broadly sinuate, sinus evenly rounded, about one-fifth as deep as wide.

Female.—Sixth segment very broadly and triangularly produced, surface densely hirsute.

Length 3.7–4.1 mm.

Thurston County, Washington Territory, 2.

109. *S. tuberculatus* n. sp.—Form rather slender. Pubescence very long, somewhat dense over the entire surface, pale fuscous in color, erect. **Head** moderate, twice as wide as long; interocular surface nearly flat, three

times as wide as the eye; deeply, coarsely, and rather closely punctate; longitudinal elevation very prominent; antennae slender, equal in length to the width of head, uniformly fusco-testaceous, club well developed; third joint but very slightly longer than the fourth; joints of club gradually increasing in length and thickness, last joint acuminate at tip; entire antenna bristling with long setae; eyes coarsely setose; palpi uniformly flavo-testaceous. **Prothorax** widest just before the middle; sides thence moderately convergent posteriorly and feebly sinuate; length slightly greater than the breadth; anterior and posterior margins equal and arcuate; surface coarsely and irregularly punctate and tuberculate; interspaces polished. **Elytra** at base very slightly narrower than the head; sides very moderately divergent posteriorly and arcuate; together broadly and very feebly emarginate behind; suture one-fifth as long again as the pronotum; surface coarsely and irregularly punctate; punctures impressed; interspaces highly polished; on each elytron there are three tuberculiform elevations. **Abdominal** segments decreasing very moderately in width, first nearly as wide as the adjoining elytra; border prominent; surface shining and rather coarsely punctate, transverse carinae not cusped. **Legs** short, fusco-testaceous, hirsute; tarsi very pale in color; first joint of the posterior equal in length to twice the second, second equal to the third. Under surface of the abdomen blackish-piceous, coarsely and distantly punctate, bristling with long erect setae.

Male.—Posterior edge of the sixth ventral segment broadly and transversely truncate; seventh deeply emarginate at apex.

Female.—Sixth segment broadly and triangularly produced posteriorly, with the apex rounded.

Length 2.3–2.6 mm.

Florida; Sand Point, 5; Enterprise, 1.

This species may be very readily recognized by the irregularities of the surface, there being ten very apparent tuberculations—four on the pronotum and six on the elytra—as well as by its very bristling and hirsute appearance.

110. **S. indistinctus** n. sp. (Schwarz MS.).—Form moderately slender. Pubescence rather short and close, cinereous in color throughout. **Head** moderate, twice as wide as long; interocular surface about two and one-half times as wide as the eye, very feebly excavated and closely punctate; punctures variolate; longitudinal elevation scarcely evident; ocular lines meeting at one and one-half lengths in advance; antennae nearly black, moderately robust and rather finely setose, club moderate, third joint one-third as long again as the fourth, joints of club gradually increasing in thickness and length; maxillary palpi reddish-brown, first joint a little paler. **Prothorax** widest at one-third its length from the anterior margin, where it is four-fifths as wide as the head; sides thence rather rapidly convergent and almost straight; length one-fifth greater than the breadth; anterior margin slightly longer than the posterior, equally arcuate; surface very slightly and transversely impressed near the anterior and posterior margins, very closely punctate; punctures variolately impressed; interspaces narrower than the

punctures, shining. **Elytra** at base somewhat narrower than the head; together deeply emarginate at the base, broadly and more feebly so posteriorly; sides rather strongly divergent, arcuate; suture one eighth as long again as the pronotum; surface convex, impressed along the suture, evenly punctate; punctures impressed; interspaces about equal in width to the punctures. **First** four abdominal segments equal in width, as wide as the contiguous elytra; border well marked; surface somewhat closely and very finely punctulate, shining; transverse carinae not cusped. **Legs** rather slender, picous-black; first joint of the posterior tarsi equal in length to twice the second. Under surface black, shining.

Male.—Posterior edge of the fifth ventral segment very broadly and feebly sinuate; sixth broadly sinuate at apex, depth of sinus equal to one-third its width, rather acutely rounded at the bottom.

Female.—Sixth segment broadly and evenly rounded behind.

Length 2.6–2.9 mm.

Detroit, Michigan, 15.

This species greatly resembles *subgriseus*, from which it differs in the nature and punctuation of the interocular surface, and notably in the structure of the prothorax, the transverse depression in the surface just behind the anterior margin being entirely absent in *subgriseus*, and the punctuation being much more distant and less variolate in the latter; the length of the pronotum is also less. The punctuation of the abdomen is much closer in *indistinctus*. The sexual characters are quite similar. Many of the specimens were taken in mid-winter.

111. **S. brumalis** n. sp.—Form moderately elongated. Pubescence of entire body long and abundant; pale fusco-cinereous in color on the head, pronotum, and elytra, cinereous, and more dense on the abdomen. **Head** moderate, slightly more than twice as wide as long; interocular surface about twice the width of the eye, very slightly excavated and closely punctate; punctures not coalescent; longitudinal elevation well marked, cariniform; ocular lines meeting at about one and one-half lengths in advance; antennae rather short and stout, densely and coarsely setigerous, dark picous-brown, about equal in length to the width of head; third joint but slightly longer than the fourth, three to six gradually decreasing in length, ten and eleven much longer and thicker than the ninth. **Prothorax** widest at the middle, where it is nearly as wide as long; sides thence gradually convergent posteriorly and slightly sinuate; anterior and posterior margins slightly arcuate and nearly equal in length; surface evenly convex, closely punctate; interspaces rather less in width than the punctures, shining. **Elytra** at base about equal in width to the head; together broadly and evenly emarginate at the base and apex; sides almost imperceptibly divergent, arcuate; suture one-fourth as long again as the pronotum; surface unevenly convex, rather closely and finely punctate; interspaces about equal in width to the punctures, highly polished. **Abdominal** segments decreasing rather

rapidly in width; border moderate; surface rather closely and finely punctate; transverse carinae not cusped. **Legs** rather dark fusco-piceous, somewhat short and stout; first joint of the posterior tarsi equal in length to twice the second, joints two to four equal in length. Under surface black, shining. Maxillary palpi having the first two joints pale testaceous, third joint darker.

Male.—Unknown.

Female.—Sixth ventral segment having the apex produced in the form of an exceedingly broad triangle.

Length 2.1–2.3 mm.

Detroit, Michigan, 2; Ann Arbor, Michigan, 1.

Division C.

This, the concluding division of the genus *Stenus* proper, as here considered, is composed of species very easily recognizable, by the absence of a distinct lateral border on the abdomen, when viewed from above.

The section was proposed by Erichson, and has been followed by all authors who have treated the subject; still discretion is necessary, as the border is always present on the first segment to a greater or less degree; elsewhere, however, it is obsolete, being nothing more than the fine suture along which the dorsal and ventral surfaces of the segments are joined. There are rare cases where a slight border is also apparent toward the bases of several segments after the first.

The following scheme may assist in identifying our limited number of species; they are all small and for the most part slender in outline, with the abdomen cylindrical; they generally have all the integuments roughly and deeply sculptured.

Punctures of elytra isolated and distinct, not coalescent.

Robust, very convex, nearly cylindrical, densely pubescent, very coarsely punctate.....112. **gratiosus**.

Much more slender, depressed, very sparsely pubescent, finely punctate.

Elytral suture just perceptibly longer than the pronotum. New Hampshire.....113. **monticola**.

Elytral suture nearly one-third longer than the pronotum. Lake Superior.....114. **curtus**.

Sculpture of elytra consisting of more or less coalescent punctures; generally very roughly, deeply, and tortuously channeled.

First joint of the posterior tarsi more than twice as long as the second.

.....115. **alacer**.

First joint of the posterior tarsi distinctly less than twice as long as the second.

Transverse carinae of abdomen 4-cuspid.....116. **hirsutus**.

Transverse carinae tricuspid.

- Elytral suture not more than one-fourth longer than the pronotum.
 Coalescent punctures of elytra forming long tortuous channels.
 Base and apex of prothorax equal or sub-equal in length.
 Prothorax widest at the middle.
 Sides of elytra strongly areolate.....117. **vestalis**.
 Sides of elytra nearly straight118. **fahoensis**.
 Prothorax widest behind the middle.....119. **nimbosus**.
 Prothorax widest before the middle120. **pugetensis**.
 Apex of prothorax longer than the base.
 Under surface of the abdomen polished, minutely and distantly punctulate121. **vacuus**.
 Under surface of the abdomen coarsely and closely punctulate, interspaces granulose and feebly shining122. **amicus**.
 Punctures of elytra not coalescent in long and tortuous channels, and not joined in sets of more than two or three.....123. **exilis**.
 Elytral suture two-thirds longer than the pronotum.
 124. **californicus**.

112. **S. graciosus** n. sp.—Form very robust. Pubescence long, dense, rather coarse, sub-recumbent, cinereous. **Head** small, very short, much more than twice as wide as long; interocular surface twice as wide as the eye, convex; sulcations feeble, rounded; intermediate surface very strongly and somewhat acutely convex, conspicuous; punctures very closely crowded, irregularly polygonal, very coarse; ocular lines meeting at two lengths in advance; antennae slightly longer than the width of head, robust, dark piecous-brown, darker toward the base, club large; third joint one-fourth as long again as the fourth, joints four to seven uniformly and very gradually decreasing in length; seventh slightly thicker than the sixth, eighth one-half longer than wide, as thick as the seventh, joints of club increasing uniformly and rapidly in length and thickness; maxillary palpi somewhat short and robust, dark piecous-black, first joint translucent, dark piecetestaceous. **Prothorax** robust, arcuately, evenly, and rapidly increasing in width to a point distinctly in advance of the middle, where it is five-sixths as wide as the head, and as wide as long; sides thence rather rapidly convergent and distinctly sinuate; anterior margin slightly shorter and more arcuate than the posterior; surface very feebly tuberculate near the basal angles; coarsely, rather closely, and evenly punctate; punctures round, deeply impressed; interspaces one-half as wide as the punctures, convex, highly polished. **Elytra** at base as wide as the head; sides rather strongly divergent posteriorly, equal in length to the width at base, moderately arcuate, strongly so toward the apices; together broadly, roundly, and strongly emarginate behind; suture one-sixth as long again as the pronotum; surface strongly convex, very feebly and narrowly impressed on the suture at the base; coarsely, rather closely, and evenly punctate; interspaces one-half as wide as the punctures, convex, highly polished. **Abdominal** segments decreasing uniformly and rather rapidly in width, first slightly narrower than the contiguous elytra; surface very convex, coarsely, closely, and evenly punctulate, highly polished; transverse carinae 4-cuspid, cusps equal in

length, long and acicular. **Legs** short and robust, piceous-black above, dark piceo-fuscous beneath; first joint of the posterior tarsi two-thirds as long again as the second, fifth much longer than the first and more slender.

Male.—Sixth ventral segment broadly and moderately sinuate at tip; fifth not appreciably modified.

Female.—Unknown.

Length 2.6 mm.

Detroit, Michigan, 1.

I am not entirely certain of the sexual characters in this species, owing to the mutilation of the type; it is a very distinct species.

113. **S. monticola** n. sp.—Form moderately robust. Pubescence moderately long, exceedingly fine and sparse, more plentiful on the abdomen, cinereous. **Head** two and one-half times as broad as long; interocular surface two and one-half times as wide as the eye, coarsely and quite regularly punctate; interspaces shining; longitudinal elevation rather acute and above the general level of the eyes, surface gradually declivous laterally to that plane; ocular lines very short, meeting at about three lengths in advance; antennae piceous-black, about equal in length to the width of head, club rather large; third joint one-fourth as long again as the fourth, joints four to eight gradually and uniformly decreasing in length, joints of club increasing in length and thickness; maxillary palpi short, piceous-black, base slightly paler. **Prothorax** robust, widest at or slightly behind the middle, where it is four-fifths as wide as the head, and just perceptibly narrower than long; sides thence convergent posteriorly and feebly sinuate; posterior margin shorter and slightly less arcuate than the anterior; surface evenly convex, coarsely punctate; punctures deeply impressed; interspaces generally equal in width to the punctures, highly lustrous. **Elytra** at base very slightly narrower than the head; sides very slightly divergent posteriorly and distinctly arcuate; together broadly, rather strongly, and evenly emarginate at the base and apex; suture just perceptibly longer than the pronotum; surface evenly convex, very coarsely, and somewhat distantly punctate; punctures deeply impressed and generally narrower than the interspaces, which are highly lustrous. **First** three abdominal segments as wide as the elytra; border feeble; surface convex, lustrous, finely and distantly punctulate; transverse carinae 4-cuspid, cusps short, fine, expanded toward tip, intervals feebly sinuate. **Legs** moderate, piceous-black, paler toward the tarsi; first joint of posterior tarsi one-half as long again as the second. Under surface of the abdomen piceous-black, moderately shining, very finely and closely punctulate.

Male.—Posterior edge of the sixth ventral segment broadly and evenly emarginate in its middle two-thirds, emargination very feeble, evenly rounded throughout.

Female.—Sixth segment produced in the form of an exceedingly obtuse angle.

Length 2.3–2.6 mm.

White Mountains, New Hampshire, 4.

114. **S. curtus** n. sp.—Form rather robust. Pubescence somewhat sparse, very fine, moderately long, cinereous, semi-recumbent on the abdomen. **Head** small, twice as wide as long; interocular surface slightly convex; coarsely, closely, and variolately punctate; nearly three times as wide as the eye; longitudinal elevation distinct; ocular lines meeting at two lengths in advance; antennae much longer than the width of head, rather slender, dark, piceous-black, very slightly paler toward tip, club large; third joint one-third as long again as the fourth, fourth and fifth equal; joints of club gradually increasing in size, eleventh nearly as long as the ninth and tenth together, acuminate at tip; maxillary palpi dark blackish-fuscous, first joint very slightly paler. **Prothorax** robust, widest slightly before the middle, where it is seven-eighths as wide as the head, and but very slightly narrower than long; sides thence moderately convergent posteriorly and very feebly sinuate; anterior and posterior margins about equal in length, equally arcuate; surface evenly convex, very closely and rather coarsely punctate; punctures variolate, irregular in outline, three to four times as wide as the interspaces. **Elytra** at base notably wider than the head; sides slightly divergent posteriorly and evenly arcuate; suture nearly one-third as long again as the pronotum; together broadly and feebly emarginate behind; surface strongly and rather evenly convex, rather coarsely and evenly punctate; punctures rounded and sub-variolate, very slightly broader than the interspaces, which are polished. **Abdominal** segments decreasing evenly and rapidly in width; border narrow; surface very convex, shining, rather coarsely punctulate; transverse carinae 4-cuspid, cusps very fine and short. Under surface of the abdomen shining, finely punctulate; pubescence increasing rapidly in length and thickness toward the tip, where it is close, long, recumbent, and fusco-cinereous. **Legs** slender, piceous-black; first joint of the posterior tarsi one-fourth as long again as the second, second equal to the third.

Male.—Unknown.

Female.—Posterior edge of the sixth ventral segment very broadly and feebly areolate throughout its width.

Length 2.0 mm.

White Fish Point, Northern Michigan, 1.

A species very readily recognized by the short first joint of the posterior tarsi.

115. **S. alacer** n. sp.—Form slender. Pubescence rather short and sparse, sub-recumbent, fine, pale piceo-cinereous. **Head** robust, moderate, much less than twice as wide as long; interocular surface nearly twice as wide as the eye, deeply excavated; longitudinal elevation in the form of a very narrow, acute ridge, rising abruptly from the bottom; supra-antennal tuberculations elongate, separated from the eye by shallow sulcations; punctures longitudinally coalescent, very unevenly distributed; interspaces polished and flat; ocular lines meeting at slightly more than one length in advance; antennae much longer than the width of head, slender, piceous-brown throughout, club slender; third joint slightly more than one-third longer than the fourth, fourth and fifth sub-equal, sixth much longer and

slightly more slender than the seventh; eighth one-half longer than wide, joints of club increasing very rapidly in length, of nearly equal width; maxillary palpi very long and slender, pale flavate throughout, second and third joints equal in length. **Prothorax** sub-cylindrical, arcuately, evenly, and very gradually increasing in width to a point slightly behind the middle, where it is nearly one-sixth narrower than long; sides thence very feebly convergent and strongly sinuate; anterior margin slightly shorter than the posterior, nearly equally arcuate; surface nearly evenly ellipsoidal; punctures transversely coalescent, rather close, interspaces very convex, polished. **Elytra** at base as wide as or very slightly wider than the head; sides nearly parallel, almost straight near the humeri, distinctly arcuate near the apices, longer than the width at base; together narrowly and strongly emarginate behind; suture distinctly longer than the pronotum; surface very convex, feebly and narrowly impressed along the suture; coarsely, evenly, and deeply punctate; punctures round, impressed, and not coalescent; interspaces as wide as the punctures, very convex, highly polished. **Abdominal** segments decreasing uniformly and very gradually in width, first much narrower than the contiguous elytra, cylindrical; surface rather coarsely, closely, and evenly punctate near the base; punctures deeply impressed and becoming so fine toward the tip as to almost disappear; interspaces very highly polished; border nearly obsolete except on the first segment, where it becomes rapidly narrower toward the segmental apex; transverse carinae tricuspid, middle cusps long, strong, and finely acuminate, prominent, lateral very rudimentary. **Legs** long and very slender, flavate, femora clouded with piceous toward the tip, tarsi very long and slender; first joint of the posterior nearly two and one-half times as long as the second, twice as long as the fifth, and as long as the second, third, and fourth together, fourth scarcely one-half as long as the third, fifth much more slender than the preceding.

Male.—Fifth ventral segment very feebly emarginate in its middle third at apex, emargination not measurable, evenly rounded, contiguous surface cylindrically and feebly impressed throughout anteriorly, pubescence very coarse; sixth triangularly, narrowly, and very deeply incised at apex, incisure fully twice as deep as wide, angles somewhat rounded.

Female.—Fifth segment emarginate in its middle eighth at apex, emargination evenly rounded, and about eight times as wide as deep; sixth segment narrow, rather obtusely rounded at apex.

Length 3.2–3.7 mm.

Cedar Keys, Florida, 1; Columbus, Texas, 1; Arizona, 5; Colorado, 2; Southern Illinois, 2.

The specimen of this well-marked species from Texas differs from the one from Florida in no essential feature; it appears, however, to be slightly more mature, and the basal joints of the antennae are pale piceo-testaceous, the remainder being nearly piceous-black; it is the smallest of the entire number, and is a female.

The above description was taken from the Floridan female.

116. *S. hirsutus* n. sp.—Form rather robust. Pubescence very long, close, semi-erect, rather coarse, cinereous, conspicuous. Head rather small, slightly more than twice as wide as long; interocular surface feebly convex, scarcely twice as wide as the eye; longitudinal elevation distinctly wider than the lateral portions, evenly and rather strongly convex; sulcations very feeble; punctures round, deeply impressed, evenly distributed; interspaces nearly as wide as the punctures, very convex and highly polished; ocular lines meeting at slightly more than one length in advance; antennae much longer than the width of head, moderately robust, very coarsely setose, piceous-black, club abruptly piceous-brown, rather well developed; third joint one-fourth longer than the fourth, fourth and fifth equal, sixth much shorter than the seventh, equal in width, eighth one-half longer than wide, scarcely enlarged, cuneate, ninth longer than wide, tenth as long as the ninth, broader than long, eleventh as wide as the tenth, acuminate, nearly as long as the ninth and tenth together; maxillary palpi short and robust, piceous-black, first joint pale piceo-testaceous, third but slightly thicker than the second. Prothorax robust, widest at the middle, where it is four-fifths as wide as the head and just perceptibly narrower than long; sides thence very slightly convergent posteriorly and feebly sinuate; anterior margin slightly longer and more arcuate than the posterior; surface very even, very feebly tuberculate near the basal angles; punctures small, round, deeply impressed, evenly distributed; interspaces slightly wider than the punctures, convex, highly polished. Elytra at base as wide as the head; sides feebly divergent posteriorly, very slightly longer than the width at base, rather strongly arcuate; together very broadly, roundly, and feebly emarginate behind; suture one-eighth longer than the pronotum; surface very convex, very feebly impressed on the suture toward the base; coarsely, very evenly punctate; punctures deeply impressed, round; interspaces as wide as the punctures, convex, highly polished. Abdominal segments decreasing arcuately and rather rapidly in width, first as wide as the contiguous elytra, nearly cylindrical; surface very highly polished, rather sparsely, finely, deeply, and evenly punctulate; lateral border nearly obsolete, except on the first segment; transverse carinae 4-cuspid, cusps rather short, equal, equidistant, finely acuminate. Legs rather short and robust, black above, piceous beneath; first four joints of the posterior tarsi uniformly decreasing in length, last slender and much longer.

Male.—Sixth ventral segment very broad at apex, where it is very broadly sinuate, sinus occupying nearly the entire segmental width, evenly rounded and almost too feeble for measurement.

Female.—Sixth segment angularly produced at tip.

Length 2.5-2.7 mm.

Detroit, Michigan, 2.

The female associated with the above type differs from it in so many points that it may prove to be a distinct species; the pubescence is shorter and thicker, the elytra very much shorter, the punctation slightly more feeble and irregular than in the male; the antennae, also, are entirely black. The description has been drawn

from the male with exception of the measurements of the tarsal joints, which were taken from the female.

117. *S. vestalis* n. sp.—Slender and fusiform. Pubescence rather long, coarse, moderately close, recumbent, and cinereous on the abdomen, excessively short, sparse, fine, and almost invisible on the remainder of the upper surface. **Head** small, twice as wide as long; interocular surface moderately depressed, scarcely twice as wide as the eye, coarsely, rather closely, and very feebly punctate; equally trilobed by the very well-marked sulcations; intermediate surface strongly and evenly convex, prominent; punctures in the middle so feeble as to be almost invisible, surface shining; ocular lines meeting at one-half a length in advance; antennae scarcely as long as the width of head, moderately robust, piceous-black, club distinct; joints three to five uniformly and gradually decreasing in length, sixth and seventh equal, eighth somewhat wider than long, joints ten and eleven much more robust than the ninth; maxillary palpi long, first joint testaceous, remainder piceous-black, third densely setigerous. **Prothorax** small, widest at the middle, where it is four-fifths as wide as the head, and distinctly narrower than long; sides thence very feebly convergent posteriorly and rather strongly sinuate; anterior and posterior margins equal in length, the former much the more arcuate; surface slightly uneven, very confusedly and rather closely punctate; canaliculation long, broad, deeply impressed, and very prominent, terminating at equal distances from the margins, three-fourths as long as the pronotum. **Elytra** at base distinctly wider than the head; sides moderately divergent posteriorly, very slightly longer than the width at base and strongly arcuate; together roundly and rather strongly emarginate behind; suture one-fourth as long again as the pronotum; surface convex, feebly impressed on the suture at base, coarsely, closely, and very irregularly sculptured; punctures very seldom isolated, generally joined in coalescent channels. **Abdomen** nearly cylindrical, segments decreasing slowly and uniformly in width, first much narrower than the contiguous elytra; border very slight; surface very coarsely and closely punctulate; transverse carinae tricuspid, cusps rather approximate, long and aciculate at tips, very prominent, intervals strongly sinuate. **Legs** long and slender, black above, dark piceous-brown beneath; first joint of the posterior tarsi one-half as long again as the second, much shorter than the fifth, joints two to four uniformly and very gradually decreasing in length.

Male.—Unknown.

Female.—Sixth ventral segment rather narrow, very evenly rounded behind.

Length 2.4 mm.

Kern County, California, 1.

A very distinct species; it seems to come naturally in a position intermediate between the division with bordered abdomen and those in which it is not margined, the border only being distinct at the bases of the first two segments.

118. *S. tahoensis* n. sp.—Form very moderately robust. Pubescence very short, semi-erect, sparse, somewhat coarse, pale fulvous on the abdomen, almost invisible on the remainder of the dorsal surface. **Head** moderate, twice as wide as long; interocular surface feebly depressed, slightly more than twice as wide as the eye; equally trilobed by the rounded and distinct sulcations; intermediate surface feebly and evenly convex; punctures fine, extremely close and confused; interspaces almost lustreless; ocular lines meeting at less than one length in advance; antennae short, as long as the width of head, robust, piceous-black, club distinct; joints three, four, and five equal, sixth slightly longer and less robust than the seventh, eighth slightly elongated, sub-globular, joints of club increasing very rapidly in length, last two equal in width and much thicker than the ninth, last joint as long as the eighth and ninth together; maxillary palpi moderate, piceous-black, first joint slightly paler, piceo-testaceous. **Prothorax** widest at the middle, where it is more than five-sixths as wide as the head, and very distinctly narrower than long; sides thence equally convergent anteriorly and posteriorly, and nearly straight, very feebly arcuate in the former direction, slightly sinuate in the latter; anterior and posterior margins sub-equal in length, the former slightly the more arcuate; surface very strongly tuberculate near the basal angles, feebly and transversely impressed behind the apex, and distinctly swollen along the borders of the canaliculation; punctures fine, excessively close and confused; interspaces almost lustreless; canaliculation large, fusiform, rather deeply impressed and conspicuous, terminating at nearly equal distances from the base and apex, three-fourths as long as the pronotum. **Elytra** at base as wide as the head; sides nearly parallel, slightly longer than the width at base, nearly straight, very feebly arcuate near the apices; together broadly, roundly, and strongly emarginate behind; suture one-fifth longer than the pronotum; surface nearly evenly convex, deeply, somewhat coarsely, extremely closely and irregularly punctured and channeled; interspaces acute and very feebly shining. **Abdominal** segments decreasing nearly uniformly and very gradually in width, first slightly narrower than the contiguous elytra; surface very convex, coarsely, closely, and evenly punctulate; transverse carinae tricuspid, cusps long, strong, finely acicular toward the tips, nearly equal in length, conspicuous, intervals strongly sinuate; lateral border almost obsolete, except on the first segment and at the bases of the others. **Legs** moderate, slender, piceous-black above, femora blackish-fuscous beneath; first joint of the posterior tarsi one-half longer than the second, as long as the second and third together.

Male.—Unknown.

Female.—Sixth ventral segment just perceptibly and very broadly angulate at the apex.

Length 2.6 mm.

Lake Tahoe, Nevada, 1.

119. *S. nimbosus* n. sp. (Fauvel MS.).—Form rather slender. Pubescence very sparse, rather short and coarse, sub-recumbent, very pale flavo-cinereous on the abdomen. **Head** moderate, twice as wide as long; interocular surface strongly depressed, nearly three times as wide as the eye;

longitudinal elevation slightly narrower than the lateral portions, feebly and evenly convex; sulcations rounded, distinct; punctures rather fine, round, somewhat shallow and confused; interspaces very strongly and conspicuously granulate, feebly shining; ocular lines meeting at slightly more than one-half a length in advance; antennae very short and robust, scarcely as long as the width of head, piceous-black, club moderate; third joint very short, scarcely one-fifth longer than the fourth, joints four, five, and six decreasing uniformly and just perceptibly in length, six and seven equal in length, the latter scarcely perceptibly thicker, eighth very slightly elongated, subglobular, as thick as the seventh, joints of club very short, tenth slightly the broadest; maxillary palpi rather long and slender, piceous-black, first joint dark piceo-testaceous. **Prothorax** arcuately, evenly, and very gradually increasing in width to a point slightly behind the middle, where it is slightly more than three-fourths as wide as the head and much narrower than long; sides thence very feebly convergent posteriorly, very short and feebly sinuate; anterior and posterior margins equal in length, the former very arcuate, the latter very feebly so; surface tuberculate near the basal and apical angles, distinctly swollen along the sides of the canalliculation; sculpture similar to that of the head; canalliculation broad, deeply impressed, nearly equal in width throughout, terminating at equal distances from the base and apex, four-fifths as long as the pronotum, conspicuous. **Elytra** at base as wide as the head; sides very feebly divergent posteriorly, longer than the width at base and strongly arcuate; together broadly, roundly, and strongly emarginate behind; suture one-fourth longer than the pronotum; surface nearly evenly convex, very closely, deeply, rather finely, confusedly, and coarsely punctate; interspaces very acute, coarsely granulate, feebly shining. **Abdominal** segments decreasing uniformly and rapidly in width, first much narrower than the contiguous elytra, cylindrical; border obsolete except a very obscure one on the first segment; surface very coarsely granulose, coarsely, very closely, feebly, and variolately punctulate; transverse carinae tricuspid, cusps closely approximate, long, rather finely acuminate, prominent. **Legs** rather long and slender, piceo-fuscous, paler and rufous beneath; first joint of the posterior tarsi two-thirds longer than the second, as long as the second and third together, and as long as the fifth, joints two to four uniformly decreasing in length.

Male.—Unknown.

Female.—Sixth segment small, very broadly and just perceptibly angulate at tip.

Length 2.2–2.5 mm.

Fort Garland, Colorado, 2.

120. **S. pugetensis** n. sp.—Form slender. Pubescence rather long, coarse, abundant, recumbent, and cinereous on the abdomen, very short, sparse, and inconspicuous on the remainder of the upper surface. **Head** moderate, robust, scarcely twice as wide as long; interocular surface very moderately depressed, two and one-half times as wide as the eye; evenly, rather finely, and somewhat closely punctate; interspaces flat, minutely reticulated, somewhat shining; longitudinal elevation distinctly narrower

than the lateral portions, evenly and rather strongly convex; ocellar lines meeting at one and one-half lengths in advance; antennae slightly longer than the width of head, piceous-black, very slender, with exception of the first two joints and the club, which are thick; third and fourth joints equal, fifth just perceptibly shorter, sixth and seventh equal in length, the latter much thicker, eighth as wide as long, cordate; last two joints much more robust than the ninth; maxillary palpi short and robust, first joint flavo-testaceous, second and third piceous-black, third nearly as long as the first two together. **Prothorax** widest slightly before the middle, where it is three-fourths as wide as the head, and distinctly narrower than long, sides thence very moderately convergent posteriorly and slightly sinuate; anterior and posterior margins nearly equal in length and curvature; surface rather coarsely, very closely, evenly, but rather confusedly punctate; canaliculation very broad, deeply impressed, long and prominent. **Elytra** at base as wide as the head; sides nearly parallel, as long as the width at base, moderately arcuate; together broadly and just perceptibly emarginate behind; suture nearly one-fifth as long again as the pronotum; surface evenly convex, coarsely, very closely, irregularly, and confusedly punctured and channeled, isolated punctures being seldom seen. **Abdomen** nearly cylindrical; segments uniformly and extremely gradually narrowing behind, first slightly narrower than the contiguous elytra; border of first distinct at base, that of the remainder extremely narrow, and to be seen with difficulty; surface coarsely and closely punctulate at base, more finely and sparsely so toward tip; transverse carinae tricuspid, cusps rather approximate, long, stout, aciculate toward tips, prominent; lateral slightly inclined inward. **Legs** rather long and slender, piceous-black; first joint of the posterior tarsi one-half as long again as the second, slightly longer than the last, second and third sub-equal, fourth thin and oblique.

Male.—Posterior edge of the fifth ventral segment just perceptibly sinuate near the middle; sixth broadly and deeply sinuate at tip, sinus more acutely rounded at the bottom than along the sides, about four times as wide as deep; seventh narrowly truncate at tip.

Female.—Unknown.

Length 2.1 mm.

Thurston County, Washington Territory, 1.

This delicate little species bears a considerable resemblance to *vestalis*; it differs in the structure of the elytra, in the sculpture, in the tarsal structure, and in size. The remarks made upon the abdominal border of *vestalis* will apply with almost equal force here.

121. **S. vacuus** n. sp.—Form rather slender. Pubescence short and coarse, rather sparse except in the medial portions of the abdomen, plumbeous except along the abdomen and on the head, where it is conspicuously fulvous. **Head** moderate, twice as wide as long; interocular surface moderately depressed, more than twice as wide as the eye; longitudinal elevation much narrower than the lateral portions, feebly and evenly convex; sulcations very feeble; punctures rounded, rather close, evenly distributed, and

somewhat obscure; ocellar lines meeting at fully one length in advance; antennae very slightly longer than the width of head, robust, nearly black, club rather small; third, fourth, and fifth joints exactly equal, sixth very slightly shorter, just perceptibly longer and distinctly more slender than the seventh, eighth as wide as the seventh, slightly elongated, conical, joints of club increasing in length, tenth much the most robust; maxillary palpi long, first joint pale piceo-testaceous, second slender, piceous-black, third strongly clavate, black. **Prothorax** widest just before the middle, where it is five-sixths as wide as the head, and slightly narrower than long; sides thence moderately convergent posteriorly and rather strongly sinuate; anterior margin very slightly longer and more arcuate than the posterior; surface distinctly tuberculate at a slight distance from the basal angles, longitudinally impressed on the flanks at the widest section, transversely and distinctly impressed just behind the apex; very closely, finely, obscurely, and rugulose punctate; canalliculation strong, fusiform, rather roundly impressed, bottom punctate, beginning at one-fourth the length from the vertex, terminating at one-eighth the length from the base. **Elytra** at base as wide as the head; sides parallel, longer than the width at base, strongly arcuate posteriorly, more feebly so near the humeri; together broadly, deeply, and evenly emarginate behind; suture one-fourth longer than the pronotum; surface feebly impressed on the suture at the base, finely, deeply, extremely closely and irregularly channeled; channels generally strongly arcuate outwardly, having a generally longitudinal direction. **Abdominal** segments uniformly and rapidly decreasing in width, first much narrower than the contiguous elytra, cylindrical; surface very closely, coarsely, variolately, and evenly punctulate, feebly shining; lateral border very feeble except on the first segment, where it is distinct; transverse carinae tricuspid, cusps rather approximate, long and acicular, prominent, and exactly equal in length. **Legs** rather long and slender, blackish-fuscous; first joint of the posterior tarsi two-thirds longer than the second, as long as the second and third together, and very slightly shorter than the last, joints two to four uniformly and gradually decreasing in length.

Male.—Fifth ventral segment just perceptibly emarginate in its middle sixth at apex; sixth sinuate at apex, sinus much broader than the apices, more acutely rounded at the bottom, three times as wide as deep; seventh transversely truncate at tip, angles rounded.

Female.—Unknown.

Length 2.5 mm.

San Mateo, California, 2.

Distinguished from *vestalis* by its more robust form, fulvous pubescence and much finer, closer and more channeled elytral sculpture.

122. **S. amicus** n. sp.—Form moderately robust. Pubescence sparse, coarse, short, nearly erect, plumbeous except a few scattered hairs on the head, and clusters toward the middle and base of the abdomen, which are fulvous. **Head** small, robust, less than twice as wide as long; interocular surface nearly three times as wide as the eye, rather feebly depressed; longitudinal elevation nearly as wide as the lateral portions, feebly and evenly

convex; punctures rather large, very closely crowded, evenly distributed; interspaces coarsely granulose; ocular lines meeting at scarcely one-half a length in advance; antennae slightly longer than the width of head, rather robust, piceous-black, club rather prominent; third joint scarcely one-fifth longer than the fourth, fourth and fifth equal, sixth and seventh equal in length, and sub-equal in thickness, eighth thicker than the seventh, slightly elongated, last two joints much thicker than the ninth; maxillary palpi rather slender, first joint fulvous, second piceous-black, paler at base, third short, rather slender, piceous-black. **Prothorax** widest at one-third the length posteriorly, where it is five-sixths as wide as the head, and narrower than long; sides thence moderately convergent posteriorly, long, feebly sinuate; anterior margin much longer than the posterior, equally arcuate; surface feebly tuberculate near the basal angles, impressed on the flanks at one-third the length from the apex; having a deep, rounded, prominent impression near each anterior angle; finely, very closely, somewhat evenly punctate; interspaces narrow, uneven, distinctly granulose; canalication terminating at a distance from the base and apex equal to one-fourth the length, roundly impressed, deep, fusiform, and conspicuous, bottom impunctate. **Elytra** at base wider than the head; sides very feebly divergent posteriorly, slightly longer than the width at base, strongly arcuate, more strongly so posteriorly; together broadly, roundly, and very strongly emarginate behind; suture one-fourth longer than the pronotum; surface deeply impressed on the suture at the base, feebly impressed near the humeri; rather coarsely, very closely, most irregularly, and tortuously channeled. **Abdominal** segments decreasing uniformly and rather rapidly in width, first slightly narrower than the contiguous elytra; border nearly obsolete except on the first segment; surface very coarsely, closely, variolately, and evenly punctulate; interspaces coarsely granulose; transverse carinae tricuspid, cusps nearly equal in length, rather finely acuminate, long, and prominent. **Legs** very slender, dark piceo-fuscous; first joint of the posterior tarsi one-half longer than the second and distinctly shorter than the last, second, third, and fourth uniformly and rapidly decreasing in length; all the joints are coarsely granulose.

Male.—Unknown.

Female.—Sixth ventral segment very obtusely rounded behind.

Length 3.0 mm.

Colorado, 2.

This species may be distinguished at once from *vacuus* by the under surface of the abdomen, which in the latter is highly polished, very sparingly pubescent, minutely and sparsely punctulate, while in the former it is coarsely and closely punctulate, and the interspaces are minutely, though distinctly, granulose or reticulated. The structure of the prothorax of *amicus* is peculiar and very unusual in the genus, and renders the species very distinct.

123. **S. exilis** n. sp.—Form slender. Pubescence short, stout, extremely sparse, semi-erect, plumbeous, somewhat fulvous on the head. Head mode-

rate, twice as wide as long; interocular surface two and three-fourths times as wide as the eye, very moderately depressed; longitudinal elevation very slightly narrower than the lateral portions, evenly and rather strongly convex; punctures rather large, feeble, evenly distributed, close, confused, and nearly obsolete; interspaces granulose; ocular lines meeting at one length in advance; antennae as long as the width of head, rather robust, piceous-black, club distinct; joints three, four, five, and seven sub-equal, the last slightly the thickest, sixth slightly shorter, eighth slightly elongated, as wide as the seventh, club compact, last two joints distinctly broader than the ninth; maxillary palpi moderate, dark piceous-brown, first joint and base of the second piceo-testaceous and rather pale. **Prothorax** widest just before the middle, where it is six-sevenths as wide as the head, and one-eighth narrower than long; sides thence very slightly convergent posteriorly and feebly sinuate; anterior and posterior margins equal in length, the former distinctly the more arcuate; surface distinctly tuberculate near the basal angles, broadly and rather feebly impressed on the flanks near the middle, with two rather small distinct impressions near the apical angles, finely, closely, rather evenly punctate; interspaces roughly granulose; canalliculation beginning at one-third the length from the apex and extending to within one-fourth the length of the base, narrowly impressed, nearly equally wide throughout, not very strong, though distinct. **Elytra** at base wider than the head; sides parallel, distinctly longer than the width at base, rather strongly arcuate, more so posteriorly; together narrowly, strongly, and roundly emarginate behind; suture one-fourth longer than the pronotum; surface feebly impressed on the suture at the base; finely, somewhat feebly, closely, and rather evenly punctate; punctures impressed, seldom coalescent, no channels present; interspaces roughly granulose and shining. **Abdominal** segments decreasing uniformly and rather rapidly in width, first much narrower than the contiguous elytra, cylindrical; border obsolete except on the first segment, where it is narrow and obscure; surface very closely, coarsely, and evenly punctulate; interspaces granulose and feebly shining; punctures finer and more distant toward the tip; transverse carinae trispidal, cusps closely approximate, sub-equal in length, finely acuminate, rather long and prominent. **Legs** rather short and slender, blackish-fuscous, first joint of the posterior tarsi scarcely more than half longer than the second, and distinctly shorter than the fifth, second and three nearly equal, fourth much shorter. Under surface of femora and tibiae coarsely, closely, and evenly punctulate; interspaces rather granulose, not visibly reticulated.

Male.—Fifth abdominal segment just visibly and evenly emarginate in the middle, surface very narrowly, cylindrically, obscurely, and feebly impressed throughout anteriorly; sixth sinuate at tip, sinus rather more feeble in curvature than the apices, and equal to them in width, evenly rounded, about seven times as wide as deep; seventh segment very narrow, truncate at tip, truncation very feebly arcuate.

Female.—Unknown.

Length 2.8 mm.

California, 1.

This species is distinguished among its near neighbors by its very narrow slender abdomen, by the more uniform character of the elytral

sculpture, and by the structure of the antennae. The prothorax bears a great resemblance to that of *amicus*, having, as in that species, the small impressions near the anterior angles.

124. *S. californicus* n. sp.—Form very moderately robust. Pubescence short, fine, rather sparse, and inconspicuous, sub-recumbent, pale flavo-chitinous. Head rather small, twice as wide as long; interocular surface nearly flat, slightly more than twice as wide as the eye; longitudinal elevation very slightly wider than the lateral portions, evenly and feebly convex; sulcations broadly rounded; punctures deep, very closely crowded; interspaces coarsely granulose and lustreless; ocular lines meeting at one length in advance; antennae distinctly longer than the width of head, black, piceous toward the tip, slender, club moderate; third joint one-fifth longer than the fourth, fourth and fifth equal, sixth and seventh equal in length, the latter much thicker, eighth sub-globular, as thick as the seventh, joints of club increasing in length, last two equal in width and much larger than the ninth; maxillary palpi slender, deep black, first joint dark blackish-testaceous. Prothorax small, widest slightly behind the middle; sides thence very feebly convergent anteriorly and posteriorly, arcuate, becoming much more strongly so in the former case, slightly sinuate in the latter; anterior margin slightly shorter and more arcuate than the posterior; surface very feebly and transversely impressed just behind the apex, otherwise nearly evenly convex; punctures small, polygonally crowded, deep, rather evenly distributed; interspaces coarsely granulose and somewhat lustreless; canalliculation well marked, two-thirds as long as the pronotum, terminating at a slightly less distance from the base than the apex. Elytra at base distinctly wider than the head; sides nearly parallel, much longer than the width at base, somewhat arcuate at two-thirds the distance toward the vertices; together broadly, roundly, and rather strongly emarginate behind; suture two-thirds longer than the pronotum; surface distinctly impressed on the suture toward the base, rather coarsely, very closely punctate; punctures crowded, rarely coalescent; interspaces coarsely granulated. Abdominal segments decreasing uniformly and rapidly in width, first distinctly narrower than the contiguous elytra; surface very convex, coarsely, deeply, closely punctulate; interspaces coarsely granulose; transverse carinae tricuspid, middle cusps finely acuminate, prominent; lateral border very narrow and almost obsolete except on the first segment. Legs short and slender, piceous-black; first joint of the posterior tarsi one-half longer than the second, equal in length to the fifth, joints two to four uniformly and rapidly decreasing in length. Body winged.

Male.—Fifth ventral segment just perceptibly emarginate in the middle at apex; sixth narrowing toward the tip, where it is deeply bilobed; cusp slightly rounded; seventh segment narrow at the apex, where it is transversely truncate.

Female.—Sixth segment evenly rounded behind.

Length 2.1–2.3 mm.

Lake Tahoe, Nevada, 4; California (Calamas, Gilroy, San Buenaventura), 5.

A very distinct form; it is distinguishable at a glance by its very long elytra.

Subgenus **MUTINUS** nom. nov.

The two following species are separated as a subgenus under the above name, on account of certain peculiarities in the antennae. These organs in the male are long and slender, and have the ninth and tenth joints no thicker than the seventh, or but very slightly more robust; the terminal joint equal in thickness, but is much shorter than the penultimate. In the female these characters are not striking, the club being of nearly normal formation, except that the last joint is about equal in length to the tenth. The general form of the body is slender and sub-cylindrical, and the abdomen is not margined laterally. The integuments are highly polished. The tarsi are normal, the last joint being very short, and the first very long.

The only species thus far discovered within our territory may be distinguished as follows:—

Large species, 4.4 mm. in length; punctuation close. Arizona...125. **gilae**.
Smaller species, 3.0–3.8 mm.; punctuation much more distant. Massachusetts to Texas126. **dispar**.

125. **S. (M.) gilae** n. sp.—Form moderately slender. Pubescence sparse, short, fine, piceous, inconspicuous. Head robust, much less than twice as wide as long; interocular surface strongly depressed, twice as wide as the eye; longitudinal elevation very narrow, strongly convex, impunctate, and highly polished; punctures moderate in size, rounded, rather evenly distributed; and very closely crowded; ocular lines meeting at one-half a length in advance, strongly curvate anteriorly; antennae one-third longer than the width of head, slender, basal joint black, remainder dark piceo-testaceous, club very slender; third joint very long, one-half longer than the fourth, fourth slightly shorter than the fifth, sixth distinctly shorter and more slender than the seventh, eighth and ninth equal in length, the latter distinctly thicker and slightly more robust than the seventh, tenth joint just perceptibly shorter than the ninth, cylindrical, and distinctly thicker, last joint three-fourths as long as the tenth, slightly compressed; maxillary palpi very long and slender, translucent, very pale flavate throughout, second and third joints sub-equal in length, fourth nearly as broad as long, very minute, rounded at tip. **Prothorax** widest at two-thirds the length posteriorly, where it is distinctly narrower than long; sides thence very feebly convergent behind and strongly sinuate; anterior margin slightly shorter and more arcuate than the posterior; surface evenly convex, deeply, very closely, and evenly punctate; punctures elongated transversely; interspaces very convex, polished. **Elytra** at base as wide as the head; sides very feebly divergent posteriorly, slightly longer than the width at base, strongly and almost evenly arcuate;

together deeply emarginate behind; suture slightly longer than the pronotum; surface feebly impressed along the suture, very evenly, rather finely, very closely punctate; interspaces not one-half as wide as the punctures, slightly convex, polished. **Abdominal** segments decreasing uniformly and very gradually in width, first distinctly narrower than the contiguous elytra; surface extremely coarsely and closely punctulate at the base, becoming finely and much more distantly so toward the tip; lateral border nearly obsolete, except on the first segment; transverse carinae tricuspid, middle cusps strong and coarsely acuminate at tip, lateral much wider, more rounded and somewhat shorter. **Legs** long, flavate, except the tips of the femora, which are shaded with castaneous, femora robust, tibiae very long and slender, tarsi slender, cylindrical; first joint of the posterior more than twice as long as the second, as long as the next three together, second distinctly longer than the third, fourth very short, fifth equal in length to the third.

Male.—Fifth ventral segment very feebly emarginate in its middle fifth at apex, emargination rather angulate, about eight times as wide as deep, contiguous surface narrowly and cylindrically impressed for two-thirds its extent anteriorly; sixth deeply and narrowly incised at apex, incisure one-half deeper than wide, vertex nearly acute, sides slightly sinuate, angles rounded; seventh segment deeply emarginate at apex, bottom of emargination broadly transverse, teeth strong.

Female.—Fifth segment slightly roughened or spongy in the middle of the apical edge; sixth obtusely rounded behind.

Length 4.4 mm.

Arizona (Morrison), 18.

This species is very closely allied to *dispar*, but differs decidedly in the much closer and relatively finer sculpture, in the structure of the male antennae—where the outer joints are shorter and thicker than the seventh—and very markedly in size; it appears to be abundant.

126. **S. (M.) dispar** n. sp.—Form very slender. Pubescence very sparse, moderately long and fine, sub-recumbent, very pale piceo-plumbeous. **Head** moderate, robust, much less than twice as wide as long; interocular surface twice as wide as the eye, moderately depressed; longitudinal elevation very narrow, rather feebly and evenly convex near the base, becoming extremely narrow and cariniform anteriorly; supra-antennal tuberculations round, very moderate; punctures coarse, evenly distributed, not coalescent; interspaces one-half as wide as the punctures; ocular lines meeting at slightly less than one length in advance; antennae very long and slender, much longer than the width of head, basal joint black, remainder piceous-brown, club elongated, very strong; third joint one-half longer than the fourth, fourth shorter than the fifth and just perceptibly longer than the sixth, sixth very slightly longer than the seventh, eighth slightly more than one-half as long as the seventh, seventh and eighth just perceptibly enlarged, joints of club much elongated, tenth cylindrical and as long as the eleventh; maxillary palpi very long and slender, pale flavate throughout, third joint distinctly longer

than the second. **Prothorax** arenately, evenly, and very gradually increasing in width to a point slightly behind the middle, where it is nearly one-fifth narrower than long, sides thence very feebly convergent posteriorly and strongly sinuate; anterior and posterior margins nearly equal; surface evenly ellipsoidal; punctures rather small, deeply impressed, somewhat coalescent; interspaces convex and highly polished, generally as wide as the punctures. **Elytra** at base as wide as the head; sides nearly straight for three-fourths the length posteriorly, then strongly arcuate, much longer than the width at base; width at humeri slightly greater than the distance between the apical angles; together narrowly and strongly emarginate behind; suture distinctly longer than the pronotum; surface narrowly impressed along the suture; punctures large, round, deeply impressed, somewhat variable in size, nearly evenly distributed; interspaces nearly as wide as the punctures, strongly convex, highly polished. **Abdominal** segments of nearly equal width, much narrower than the contiguous elytra; nearly cylindrical; surface nearly as in *alacer*, though rather more distantly punctulate; transverse carinae tri-cuspid, middle cusp narrow, rather strong, acuminate; lateral nearly as long but much broader, rounded at the tip; lateral border almost obsolete except on the first segment, where it is very narrow. **Legs** very long and slender, pale flavate throughout; first joint of the posterior tarsi twice as long as the second, as long as the next three together, second as long as the fifth.

Male.—Posterior edge of the fifth ventral segment very feebly and triangularly incised in its middle fourth, incisure five times as wide as deep, contiguous surface cylindrically impressed throughout anteriorly, pubescence dense, coarse, and piceous; sixth segment very deeply and narrowly incised at apex, angle of incisure slightly rounded, sides nearly straight, depth one-half greater than the width; seventh transversely truncate at tip, without lateral teeth.

Female.—Fifth segment very feebly emarginate in its middle fourth at apex, emargination evenly rounded and not measurable; sixth segment very narrow, somewhat obtusely rounded behind; seventh truncate at tip, lateral teeth strong and porrected.

Length 3.0-3.8 mm.

Cambridge, Massachusetts, 7; Southern States (locality unknown), 1; Texas, 1; Washington, District of Columbia, 1; Topeka, Kansas, 1.

A very interesting species, varying greatly in size. The above description was taken from the male, with the exception of that of the antennae which was drawn from a female. The male antenna is unlike anything else in the genus with the exception of *gile*, and is filiform, nearly two-thirds longer than the width of head, and having the three outer joints no wider than the seventh, all very elongated, except the last, which is scarcely more than one-half as long as the tenth. It seems to be widely distributed.

Unrecognized Species.

The following species I have been unable to identify, although several of them may, perhaps, have been unwittingly described under other names in the preceding pages:—

The original descriptions of these species, four in number, are here reproduced in full, together with the appended remarks.

127. **Stenus adsector** Mäklin: niger, creberrime punctatus, parce pubescens, palpis fuscis, basi testaceis; fronte leviter excavata, bisulcata, interstitio subcarinato; thorace latitudine vix longiore, obsolete canaliculato, lateribus modice rotundato; elytris thorace dimidio fere longioribus, inaequalibus, anterius prope suturam subornosis; abdomine nitido, subtilius punctato; femoribus ultra medium rufo-piceis.

Longit. 2 lin. Latit. parum ultra $\frac{1}{2}$ lin.

Ex insula Sitkha a D. Frankenhaeuser transmissus; cum praecedente [*maritimus*] rarissime occurrit.

Steno scrutatori Erichson certe proximus, sed magnitudine paulo minore elytrisque adhuc longioribus diversum esse videtur ("Mäklin").

128. **S. parallelopipedus** Motschulsky: plumbeo-niger, creberrime punctatus, palpis articulo primo testaceo, pedibus piceis, femoribus dilutioribus, piceo-rufo; fronte obsolete bisulcata, interstitio perparum convexo; thorace latitudine parum longiore, posterius angustato, sub-inaequali; elytris thorace longioribus, inter puncturam rugulosis.

Longit. $1\frac{1}{2}$ lin. Latit. $\frac{1}{2}$ lin.

Habitat in insula Sitkha sub cortice arborum rarissime; D. Pippingköld.

In vicinitate Steni humilis Erichs. ponendus ("Mäklin").

129. **S. cariniceps** Mäklin: cylindricus, robustus, niger, nitidus, palpis fuscis, basi testaceis, parce fortiter punctatus; capite per totam longitudinem carinato, utrinque late sulcato; thorace latitudine tertia parte longiore, basin versus subtiliter canaliculato; elytris thorace sub-brevioribus, abdomine immarginato, apicem versus vix angustato, parvissime subtiliter punctato; tarsis articulo quarto simplicibus.

Longit. $1\frac{3}{4}$ lin. Latit. fere $\frac{1}{2}$ lin.

Habitat in insula Sitkha rarissime; D. Frankenhaeuser ("Mäklin").

130. **S. immarginatus** Mäklin: cylindricus, niger, nitidus, palpis fuscis, basi testaceis, parce profunde punctatus; capite in medio carinato, utrinque latius sed minus profunde impresso; thorace basin versus subtiliter obsoleteque canaliculato; elytris thoracis longitudine; abdomine immarginato, parvis subtiliusque punctato; tarsis articulo quarto simplicibus.

Longit. $1-1\frac{1}{4}$ lin. Latit. $\frac{1}{2}$ lin.

Habitat in insula Kadjak rarissime; D. Holmberg.

Individuis minoribus St. nigrifuli Gyllenb. magnitudine aequalis, sed punctura pareiore et fortiore omnino diversus ("Mäklin").

AREUS n. gen.

In the course of remarks made in the first part of the present memoir, I have given most of the reasons, which appear to me sufficient for the generic separation of those Stenini, in which the fourth tarsal joint is distinctly bilobed. Species in which these lobes are not apparent, and in which the fourth joints are merely swollen, or slightly emarginate at tip, are excluded.

On the plate the maxillae of two representative species in the genera Stenus and Arcus are figured, and it will be seen that they exhibit differences which may be considered as, in a measure, validating the separation, although it is probable that there are forms intermediate; I have not had time to fully consider this rather interesting investigation. As before remarked, there are many more aberrant forms in Arcus than in Stenus; those species in which both the males and females possess good sexual characters, abound in the former and are quite rare in the latter, and, although generally throughout the group, the males are smaller and more slender in form than the females, there are many species of Arcus in which the reverse of this is the case.

In many closely allied species the tarsal claws are variously, and often considerably modified in shape. These aberrant forms are figured on the plate, but are not employed for purposes of classification, owing to the difficulty of viewing them to advantage. Some of the species resemble each other very closely in general appearance, and will require very careful attention to the descriptions in order to be accurately determined; doubtless a few of them still remain undescribed. The European species *tarsalis* Ljungh, *plantaris* Erichs., and *cicindeloides* Schall., are closely allied to several of these, but are quite distinct; the points of distinction will be given under the corresponding descriptions.

The main subdivisions of the genus are those generally followed, and are very natural, there being no species at present known within our faunal limits, which can give rise to much doubt as to its proper position. The secondary characters of importance are few in number, very distinct, and easily recognizable; the tertiary characters, however, are very feeble, and, as they are forced to serve for the

great majority of the species, the table can only be relied on as an approximate guide to the descriptions.

On comparing our species of this genus with those of Europe, we find a remarkable difference in regard to the proportional numbers of those with margined and unmargined abdomens. Of the former the European fauna contains more than four times as many as it does of the latter, while in the North American representatives, the ratio of those with margined abdomen to those in which the border is absent or very rudimentary, is about one to nine. Several species in our fauna have the margin entirely obsolete on all the segments except the first, where it is distinctly visible; these are all included in the division with abdomen unmargined. It is to be remarked that our fauna does not contain any forms with spotted elytra.

The species occurring north of the Mexican boundary in North America may be provisionally classified as follows:—

* *Abdomen margined.*

Legs black; tarsi sometimes paler.

Tarsi pale testaceous1. **retrusus.**

Tarsi scarcely paler than the tibiae; pubescence longer, more dense, and much more conspicuous.

Prothorax widest behind the middle; elytra strongly undulated.

2. **fraternus.**

Prothorax widest slightly before the middle; sides less angulate; elytra scarcely undulated3. **umbratilis.**

Legs pale brownish-testaceous, clouded with dark castaneous at the junction of the femora and tibiae; size much smaller.....4. **croceatus.**

** *Abdomen not margined, or extremely narrowly and imperfectly so.*

Fourth abdominal segment wider than the first.....5. **advena.**

Abdominal segments decreasing in width posteriorly, sometimes having the first three or four sub-equal in width.

Head broad, much wider than the elytra; elytral suture shorter than the pronotum.

Prothorax widest before the middle. Virginia.....6. **europs.**

Prothorax widest at the middle. Florida.....7. **megalops.**

Prothorax widest far behind the middle; much smaller species. Massachusetts8. **lugens.**

Head moderate or small in size; elytral suture longer than the pronotum. Large species, not less than 3.6 mm. in length.

Legs black throughout.

Prothorax widest behind the middle; sides thence very feebly convergent and nearly straight anteriorly. Vancouver Island.

9. **plicipennis.**

Prothorax widest in advance of the middle.

Prothorax widest at the anterior margin; apical angles prominent.

10. **agnatus.**

Prothorax widest slightly before the middle, where the sides are evenly and strongly arcuate.....11. **Sayi.**

Legs not black throughout, sometimes nearly uniform in color; generally, however, having strongly contrasting bands of paler tint.

Legs uniformly piceous-brown throughout12. **amabilis.**

Legs almost uniformly pale piceo-testaceous throughout; head much larger, slightly broader than the elytra.....13. **flavicornis.**

Legs black with paler band or bands.

Legs black, with exception of a narrow, strongly marked band of reddish-testaceous near the bases of the femora.

14. **annularis.**

Legs black; bases of the tibiae distinctly and rather abruptly paler.

Elytral punctuation very sparse, coarse, deep, and irregularly distributed. Arizona15. **perforatus.**

Elytral punctuation finer, sparse, evenly distributed. Florida.

16. **nitescens.**

Legs black, generally clothed densely with plumbeous or cinereous pubescence; tarsi alone paler.

Elytral punctuation very coarse, deep, and somewhat sparse.

Pronotum strongly, obliquely, and conspicuously swollen near each basal angle; pubescence long, coarse, and prominent.

Anterior and posterior margins of the prothorax equal in length; sides somewhat angulate near the middle. Washington Territory17. **pollens.**

Anterior margin longer than the posterior; sides evenly rounded near the middle. Colorado18. **patens.**

Pronotum very feebly swollen near the basal angles.

Prothorax equally wide at the base and apex.

Pubescence short, coarse, and rather prominent; sides of prothorax arcuate.....19. **reconditus.**

Pubescence short, fine, and inconspicuous; sides of pronotum feebly angulate; body more depressed and slender.

20. **propinquus.**

Prothorax distinctly wider at the apex than at the base.

21. **canadensis.**

Elytral punctuation very fine, closely crowded, and very evenly distributed.

Very robust species; head narrower than the elytra; prothorax short, robust, sides arcuate.

Pubescence fine, short, and very inconspicuous. British Columbia, Colorado22. **pinguis.**

Pubescence long, rather conspicuous; punctuation much more sparse; interspaces more highly polished.

23. **utenis.**

Species more slender; sides nearly parallel; head as wide as the elytra; tarsi much paler; sides of prothorax rather angulate.

- Humeral angles of elytra not prominent; seventh segment of the abdomen ♀ broadly rounded behind to the immediate vertex, which is somewhat angulate.....24. **trajectus**.
- Humeral angles of elytra very prominent; seventh segment ♀ abruptly and obtusely truncate behind, truncation in the form of a very broad triangle, angle at the immediate vertex obtuse, but not at all rounded.....25. **papagonis**.
- Smaller species, not exceeding 3.4 mm. in length.
 Legs not black.
 Very slender species.
 Elytral punctuation fine, close; legs very dark brownish-fuscous.
 26. **obsoletus**.
- Elytral punctuation coarse, rather more sparse, legs pale picaceous-brown.
 Anterior margin of the prothorax much shorter than the posterior.....27. **artus**.
- Anterior and posterior margins nearly equal in length.
 Interocular surface nearly twice as wide as the eye; larger species. Louisiana.....28. **dilutus**.
- Interocular surface but one-third wider than the eye; very small species. Florida.....29. **meridionalis**.
- Species more robust.
 Legs pale flavo-testaceous, variegated with dark castaneous.
 Third joint of maxillary palpi very long, rather slender, flavate; femora having the distal tips darker.....30. **callosus**.
- Third joint of maxillary palpi shorter, very slender at base, strongly and somewhat abruptly clavate, pale picco-testaceous above; femora darker in their distal half.....31. **varipes**.
- Legs dark fuscous in color throughout.
 Prothorax distinctly longer than wide.
 Elytral punctuation very coarse.....32. **arculus**.
- Elytral punctuation fine and close.
 Sides of elytra moderately convergent near the humeri; sides of prothorax nearly straight behind; punctuation finer and closer.....33. **punctatus**.
- Sides of elytra nearly parallel toward the humeri; humeral angles more prominent; elytral punctuation coarser and more distant; prothorax distinctly sinuate toward the basal angles, rather prominently angulate just behind the middle.....34. **dissentiens**.
- Prothorax as wide as long.....35. **Hubbardi**.
- Legs black or extremely nearly so.
 Punctures of the pronotum extremely large, deep, and sparse. Pacific Coast.
 Head as wide as the elytra at base.....36. **laetulus**.
- Head very small, much narrower than the elytra; elytral punctuation slightly finer and more regular.....37. **leviceps**.
- Pronotal punctures small, close, and nearly evenly distributed.

Elytral punctuation very coarse, much coarser than that of the pronotum.

Sides of the prothorax distinctly angulate behind the middle.

Vancouver Island.....38. **politulus**.

Sides of prothorax rounded. Lake Superior...39. **simiolus**.

Elytral punctuation much finer, but slightly coarser than that of the pronotum; body more robust.

Pubescence close and conspicuous, plumbeous; punctuation of the abdomen extremely dense. Wyoming Territory.

40. **perfinax**.

Pubescence very inconspicuous; abdominal punctation sparse, much finer. California.....41. **lucidus**.

1. **A. retrusus** n. sp.—Form rather less robust than that of *fraternus*. Pubescence somewhat long, fine, evenly distributed, sub-recumbent, close, and moderately conspicuous. Head moderate, twice as wide as long; labrum very prominent; interocular surface three times as wide as the eye, slightly convex; sulcations moderate though very distinct; intermediate surface twice as wide as the lateral portions, broadly, rather strongly and evenly convex; punctures very minute, round, feebly impressed, distant by twice their widths; ocular lines meeting at two lengths in advance; antennae rather short and robust, as long as the width of head, basal joint black, remainder pale testaceous, club moderate; slightly infusate; third joint scarcely one-third longer than the fourth, eighth distinctly shorter and slightly more robust than the seventh, joints of club slightly elongated; maxillary palpi short and robust, uniformly pale testaceous throughout. Prothorax widest at the middle, where it is distinctly narrower than long; sides thence rather strongly convergent posteriorly and very feebly sinuate; anterior margin much longer than the posterior, equally and feebly arcuate; surface very feebly swollen near each basal angle, evenly punctate; punctures very small, round, feebly impressed, distant by nearly twice their widths; interspaces flat and strongly granulose. Elytra at base about as wide as the head; sides moderately divergent posteriorly, much longer than the width at base, nearly straight to within a very short distance of the apices, where they are feebly arcuate; together broadly, roundly, and very moderately emarginate behind; suture nearly one-half longer than the pronotum; surface depressed, narrowly and feebly impressed along the suture; elytra not undulated, smooth; punctures small, round, evenly distributed, feebly impressed, distant by nearly twice their widths; interspaces flat and minutely reticulated. Abdominal segments decreasing gradually and somewhat arcuately in width, first as wide as the contiguous elytra; surface feebly convex, very minutely and feebly punctulate; lateral border prominent; transverse carinae not cusped. Legs short and rather slender, black, tarsi uniformly pale pieco-testaceous; first joint of posterior nearly as long as the next two together; third and fourth joints strongly and narrowly bilobed.

Male.—Unknown.

Female.—Posterior edge of the fifth ventral segment abruptly more strongly arcuate in the middle; sixth produced at apex in the form of a cusp, with the point slightly rounded; seventh segment bilobed at tip.

Length 4.1 mm.

Vancouver Island, British Columbia, 1.

Easily distinguished from *umbratilis* by the punctuation, and by the lack of the very distinct undulations of the elytral surfaces in the latter, as well as by its pale tarsi; it approaches the European *plan-taris* Eriehs.

2. *A. fraternus* n. sp.—Form elongated, moderately robust. Pubescence long, dense, sub-recumbent, evenly distributed, very conspicuous, cinereous. Head moderately small, robust, twice as wide as long; Inbrum prominent; interocular surface near: three times as wide as the eye, feebly convex; sulcations very feeble; intermediate surface broadly and feebly convex; punctures round, deep, evenly distributed, small, distant by less than their own widths; ocular lines meeting at about two lengths in advance; antennae rather short and robust, as long as the width of head, basal joint black, joints two to six pale testaceous, remaining five darker, club moderate; third joint one-third longer than the fourth, eighth but slightly shorter and more robust than the seventh, joints of club elongated, densely setose; maxillary palpi short, second joint swollen in the middle, third flattened, dark piceous-brown, paler at the base, second joint piceous-brown in the middle, becoming paler at base and tip, basal joint flavate throughout. Prothorax widest slightly behind the middle, where it is but little narrower than long; sides thence very feebly convergent posteriorly and slightly sinuate; anterior and posterior margins equal in length, feebly arcuate, the latter very feebly sinuate in the middle; surface strongly tuberculate near each basal angle, each having a distinct oblique impression immediately before it; punctures small, very feebly impressed, round, evenly distributed, distant by their own widths; interspaces flat and finely granulose. Elytra at base as wide as the head; sides very feebly divergent posteriorly, nearly straight, much longer than the width at base; together rather broadly, roundly, and somewhat strongly emarginate behind; suture two-fifths longer than the pronotum; surface depressed, broadly, and feebly impressed along the suture, especially toward the base, each elytron longitudinally triundulate; punctures small, round, evenly distributed, feebly impressed, distant by their own widths; interspaces flat and strongly granulose. Abdominal segments decreasing uniformly and moderately in width, first as wide as the contiguous elytra; border of first four segments very strong; surface depressed, finely and evenly punctulate; transverse carinae not cusped. Legs short and stout, black, tarsi dark piceous-brown; first three joints of the posterior decreasing almost uniformly in length, fifth short; joints three and four strongly bilobed.

Male.—Second ventral segment feebly flattened in the middle fourth; third and fourth feebly emarginate in the middle fourth at apex, emarginations evenly rounded, very abruptly terminated laterally, contiguous surfaces strongly impressed for a short distance anteriorly; fifth segment scarcely perceptibly modified; sixth broadly and deeply sinuate at tip, sinus much narrower and more acutely rounded than the apices, somewhat more than twice as wide as deep, surface feebly flattened in the middle; seventh segment rapidly narrowed toward tip, where it is roundly and rather strongly

emarginate, lateral teeth small, lateral setae strong, surface having a longitudinal carina in the middle toward the base.

Female.—Sixth segment strongly produced at apex, prolongations in the form of a cusp with the point slightly rounded; seventh very narrow at tip, where it is strongly and triangularly emarginate. Antennae not so distinctly infusate toward tip as in the male.

Length (extended) ♀, 4.9 mm.; ♂, 5.3 mm.

Wyoming Territory, 2; Marquette, Lake Superior, 1.

Very closely allied to *umbratilis*, and differing from that species in the following characters, the comparisons being made from males:—

In *fraternus* the antennae are relatively shorter and more robust than in *umbratilis*, and are more distinctly darker toward tip.

The maxillary palpi of the former are much longer and more slender than those of the latter, in which the second joint is flattened, narrowed rapidly toward the base, uniformly colored throughout, not perceptibly wider in the middle than at the distal extremity, and in which the third joint is much shorter and more strongly flattened.

In the former the abdomen is more minutely punctate above.

In *fraternus* the apex of the seventh segment is distinctly emarginate at tip, while in *umbratilis* this segment is rounded behind.

In form, size, vestiture, and in almost all other characters than those mentioned above, the two species can scarcely be separated, but as these differences, especially that of the sexual modifications in the seventh segment, are unquestionably specific, we can only regard this as a remarkable instance of approximation.

3. *A. umbratilis* n. sp.—Form rather robust. Pubescence moderately long, dense, sub-recumbent, rather coarse, cinereous, conspicuous. Head moderate, robust, much less than twice as wide as long; interocular surface strongly convex, very feebly bisulcate, except posteriorly, where the sulcations entirely disappear; finely and evenly punctate; punctures round, deeply impressed; interspaces scarcely as wide as the punctures, granulated, feebly convex; ocular lines meeting at two lengths in advance; antennae slightly longer than the width of head, somewhat slender, basal joint black, remainder pale reddish-testaceous, club slender; third joint one-half longer than the fourth, fourth and fifth equal, sixth to eighth uniformly and gradually decreasing in length, the latter somewhat narrower than the seventh, joints of club elongated, last two equal in length, tenth somewhat more robust; maxillary palpi fusco-piceous, robust, short, basal joint paler, second and third joints strongly flattened, coarsely setose. Prothorax arcuately, evenly, and very gradually widening to the middle, where it is slightly narrower than long; sides thence very moderately convergent posteriorly and nearly straight; anterior and posterior margins equal, nearly transverse; surface very feebly swollen near the basal angles, finely and evenly punctate.

tate; punctures round, deeply impressed, interspaces as wide as or wider than the punctures, nearly flat, finely granulated, moderately shining. Elytra at base one-sixth wider than the prothorax; sides very feebly divergent posteriorly, one-third longer than the width at base, nearly straight; together narrowly and strongly emarginate behind; suture one-third longer than the pronotum; surface narrowly impressed along the suture, each elytron with three longitudinally disposed undulations; punctures rather small, round, deeply impressed, evenly distributed, distant by slightly more than their own widths, interspaces finely granulose, shining. Abdominal segments decreasing rather slowly but uniformly in width, first as wide as the elytra; border of first four segments very strong, then much narrower; surface very finely and evenly punctulate, shining; transverse carinae not cusped. Legs rather short, piceous-black, tarsi much paler, the latter very robust; first, second, and third joints of the posterior uniformly decreasing in length, fourth very strongly bilobed, fifth small.

Male.—Posterior edges of the second, third, and fourth ventral segments feebly emarginate in the middle fourth, emarginations very feeble and round, contiguous surfaces cylindrically impressed, the fourth most strongly so; fifth segment transverse and entire at apex, surface not appreciably impressed; sixth strongly sinuate at apex, sinus more acutely rounded than the apices, about twice as wide as deep; seventh segment broadly and evenly rounded behind, dorsal armor very strongly developed, projecting beyond the ventral portions.

Female.—Sixth segment very strongly and acutely, abruptly and narrowly produced at apex; seventh broadly, strongly, and angularly emarginate at tip. Joints of antennal club more robust, increasing in length; last joint of palpi longer, first and second paler.

Length 4.3–4.8 mm.

Lake Quesnel, British Columbia, 16.

This species is extremely closely allied to the European *A. plan-taris* (Erichs.), but differs from it in several characters which should undoubtedly be considered specific; among these are the following, drawn from the females of the two forms respectively.

In the former the club of the antennae is moderately robust, and not darker or scarcely perceptibly so; in the latter the club is extremely large and prominent, and abruptly much darker in color.

In the former the seventh ventral segment is deeply emarginate behind; in the latter it is narrower at tip, where it is transversely truncate.

The elytra in the former are relatively longer and narrower, and have the surface more unevenly undulated. The pubescence of the former is longer and more coarse than in the latter.

Notwithstanding these differences, the two specimens compared above have a most striking mutual resemblance.

4. *A. croceatus* n. sp. (Fauvel MS.).—Form very moderately robust. Pubescence abundant, close, sub-recumbent, very coarse, cinereous, rather long, much finer, more recumbent, and less conspicuous on the abdomen. **Head** moderate, twice as wide as long; interocular surface twice as wide as the eye, very feebly convex, very feebly bisulcate; punctures rather coarse, somewhat evenly distributed, slightly irregular in shape, deeply impressed, interspaces nearly flat, varying from one-third to twice the width of the punctures, polished; ocular lines meeting at about two lengths in advance; antennae as long as the width of head, robust, basal joint fusco-piceous, remainder flavo-testaceous, club strong; third joint one-half longer than the fourth, fourth and fifth equal in length; sixth and seventh equal, eighth slightly shorter, joints of club nearly equal in length, tenth most robust and slightly transverse; maxillary palpi rather long, pale flavate throughout. **Prothorax** nearly one-eighth longer than wide; sides for three-fifths the length from the apical angles parallel and feebly convex, thence moderately convergent posteriorly and very feebly sinuate; anterior margin distinctly longer than the posterior, the former feebly arcuate, the latter transverse; surface very feebly tuberculate near the basal angles; punctures rather small, round, rather sparse, somewhat unevenly distributed, deeply impressed; interspaces nearly flat, shining. **Elytra** at base scarcely one-eighth wider than the pronotum; sides moderately divergent posteriorly, nearly two-fifths longer than the width at base, almost straight; together broadly, roundly, and rather strongly emarginate behind; suture one-third longer than the pronotum; surface very feebly impressed along the suture; punctures rather small, evenly distributed, round, moderately impressed; interspaces wider than the punctures, nearly flat, polished. **First** three abdominal segments of nearly equal width, somewhat narrower than the contiguous elytra; border strong, decreasing in width posteriorly; surface very finely, feebly, evenly, and closely punctulate, shining; transverse carinae not cuspate. **Legs** slender, flavate, with the exception of the distal end of the femora and the base of the tibiae, which are dark piceous, tarsi short and robust; first three joints of the posterior decreasing nearly uniformly in length, fifth nearly as long as the first two together; third and fourth strongly bilobed.

Male.—Sixth ventral segment deeply sinuate at apex, sinus occupying nearly the entire apex, nearly in the form of a triangular incisure with the angle broadly rounded, about twice as wide as deep; seventh segment broadly, roundly, and rather strongly emarginate at tip.

Female.—Sixth segment narrow, angulate at tip.
Length 3.7–4.5 mm.

Nebraska, 13; Detroit, Michigan, 31; Marquette, Lake Superior, 2; Long Island, 2; District of Columbia, 3.

A very abundant and well-marked species, having a wide range of distribution.

5. *A. advena* n. sp.—Form sub-cylindrical, somewhat robust. Pubescence coarse, abundant, rather long, sub-recumbent, cinereous. **Head** small,

robust, scarcely twice as wide as long; interocular surface distinctly convex; three times as wide as the eye; sulcations almost entirely obsolete; intermedullate surface evenly convex, much wider than the lateral portions; punctures coarse, very close, shallow, evenly distributed, not coalescent but polygonally crowded; ocular lines meeting at about three lengths in advance; eyes small; antennae slender, about one-third longer than the width of head, basal joints black, remainder rather dark piceous-brown, club very prominent; third joint one-third longer than the fourth, eighth much elongated, shorter than the seventh and very slightly thinner, joints of club of nearly equal length; maxillary palpi long and slender, black, basal joint piceous-black, third joint strongly flattened. **Prothorax** arcuately, evenly, and very gradually widening to a point slightly behind the middle, where it is slightly narrower than long; sides thence very feebly convergent posteriorly and distinctly sinuate; anterior margin very slightly longer than the posterior, subequally and feebly arcuate; surface nearly evenly convex, very feebly swollen near the basal angles; punctures moderate in size, evenly distributed, round, rather deeply impressed, separated by less than one-half their own widths, interspaces convex, shining. **Elytra** at base much wider than the head; sides feebly divergent posteriorly, much longer than the width at base, nearly straight, except toward the apical angles, where they become strongly arcuate; together roundly, strongly, and somewhat narrowly emarginate behind; suture slightly more than one-third longer than the pronotum; surface of each elytron longitudinally and feebly triundulate, together impressed on the suture in the basal half, very coarsely punctured; punctures round, deeply impressed, nearly evenly distributed, smaller near the humeri, separated by nearly their own widths; interspaces feebly convex, shining. **First** three abdominal segments decreasing uniformly and extremely gradually in width, fourth as wide as the first, fifth much wider and longer, sixth abruptly much narrower, nearly as long as wide; pubescence increasing greatly in density toward the abdominal tip; border obsolete, except on the first segment, where it is very narrow; surface nearly cylindrical, polished, rather finely and evenly punctulate; transverse carinae trienspid on the first and second segments, very obscurely so on the remainder. **Legs** rather slender, black; tarsi piceous-black; fourth joints strongly bilobed.

Male.—Posterior edge of the fifth ventral segment abruptly more strongly arcuate in the middle, strongly and very narrowly impressed at the immediate apex, impression totally disappearing at a very short distance anteriorly; sixth segment very narrowly and deeply sinuate at tip, sinus very acutely rounded at the bottom, slightly deeper than wide and extending nearly the entire length of the segment; seventh broadly, deeply, and roundly emarginate at tip, surface narrowly carinate in the middle near the base.

Female.—Sixth segment broadly and feebly angulate at the apex. Fourth dorsal segment but slightly wider than the first, fifth slightly narrower than the fourth, sixth much shorter; punctuation slightly more sparse.

Length 4.0-4.4 mm.

White Fish Point and Marquette, Lake Superior, 4.

May be recognized without difficulty, by the very singular enlargement of the fourth and fifth ventral segments, especially in the male.

The surface of the pronotum appears to be much rougher and more irregular in the female. The eyes are comparatively small and inconspicuous, very narrow.

6. **A. europs** n. sp.—Form slender, sub-cylindrical; sides nearly parallel behind the head; pubescence sparse, recumbent, fine, piceo-cinereous, inconspicuous. **Head** very large, much wider than any other portion of the body, fully twice as wide as long; interocular surface moderately depressed, less than twice as wide as the eye; sulcations moderate in depth, rounded at the bottom; intermediate surface rather strongly convex, wider than the lateral portions; punctures large, evenly distributed, deeply impressed, round; interspaces much narrower than the punctures, moderately convex, shining; ocular lines meeting at slightly more than one length in advance; antennae slightly longer than the width of head, slender, pale piceous-brown throughout; third joint two-thirds longer than the fourth, joints of club elongated, narrow, increasing slowly in length, last two of equal width; maxillary palpi long, slender, piceo-flavate throughout. **Prothorax** widest distinctly in advance of the middle, where it is slightly narrower than long; sides moderately convergent posteriorly and feebly sinuate; anterior margin longer than the posterior, nearly equally and very feebly arcuate; surface very feebly tuberculate near the basal angles; narrowly and distinctly canalculated nearly throughout its length; punctures close, rather strong, confusedly coalescent at some spots, isolated at others; interspaces narrow, convex, and shining. **Elytra** at base much narrower than the prothorax, equal in width to the latter at base; sides strongly divergent posteriorly, much longer than the width at base, strongly and evenly arcuate; together broadly, roundly, and extremely strongly emarginate behind; suture much shorter than the pronotum; surface of each elytron near the suture narrowly impressed, sutural margins not depressed; punctures deeply impressed, somewhat even, nearly coalescent, rounded; interspaces much narrower than the punctures, very strongly convex, polished. **First three abdominal segments** equal in width, as wide as the contiguous elytra; surface polished; nearly cylindrical; closely, evenly, and coarsely punctulate; transverse carinae not cusped; lateral margin obsolete except at the bases of the segments, where it is very narrow and feeble. **Legs** slender, pale piceous-brown throughout; first joint of the posterior tarsi as long as the next three together; fourth narrowly bilobed.

Male.—Sixth ventral segment sinuate at apex, sinus as wide as the apices, more acutely rounded at the bottom, strong, nearly four times as wide as deep; seventh deeply and roundly emarginate at tip, lateral teeth acute.

Female.—Sixth segment broadly angulate at the apex.

Length 3.1–3.7 mm.

Deer Park, Maryland, 7; Lee County, Virginia, 4; Pennington Gap, Virginia, 1.

Closely related to *megalops*, although the abdomen is more distinctly margined in that species. The very large conspicuous head in these species forcibly reminds us of *strangulatus* in the preceding genus.

7. **A. megalops** n. sp.—Form slender, sub-cylindrical; sides behind the head nearly parallel. Pubescence very sparse, more plentiful on the abdomen, piceo-cinereous, inconspicuous. **Head** very large, twice as wide as long; interocular surface very feebly depressed, not twice as wide as the eye; sulcations rather feeble; intermediate surface slightly wider than the lateral portions, moderately and evenly convex; punctures coarse, deeply impressed, rather close and evenly distributed; interspaces very convex, highly polished; ocular lines meeting at two lengths in advance, very feebly convergent; antennae distinctly longer than the width of head, translucent, piceo-testaceous, nearly black toward the base, slender, club moderate; joints nine, ten, and eleven increasing rapidly in width and length, slender; maxillary palpi rather long and slender, flavo-testaceous, darker toward the base, very translucent. **Prothorax** arcuately, evenly, and rather rapidly increasing in width to the middle, where it is much narrower than the head and slightly narrower than long; sides thence moderately convergent posteriorly and feebly sinuate; anterior and posterior margins equal in length and curvature, moderately arcuate; surface feebly and narrowly tuberculate at a short distance from each basal angle, also longitudinally canaliculated; punctures coarse, irregularly distributed, not crowded, deeply impressed; interspaces convex, polished; canaliculation rather feebly impressed, bottom rounded, fusiform in shape, nearly as long as the pronotum. **Elytra** at base much narrower than the pronotum, equal to the width of the latter at base; sides very strongly divergent posteriorly, longer than the width at base, very strongly and evenly arcuate; together broadly, roundly, and strongly emarginate behind; suture distinctly shorter than the pronotum; surface not appreciably impressed along the suture; coarsely, rather evenly, and somewhat distantly punctate; interspaces wider than the punctures, convex and polished. **Abdominal** segments as wide as the contiguous elytra; scarcely perceptibly decreasing in width; border extremely narrow, rather depressed than reflexed; surface convex, very highly polished, deeply, somewhat finely and evenly punctate; transverse carinae not cusped; lateral spiracles very distinct. **Legs** pale piceous-brown, slender; first joint of the posterior tarsi as long as the next three together; fourth joints narrowly bilobed.

Male.—Sixth ventral segment narrow at apex, where it is sinuate, sinus occupying the entire apex, evenly rounded, very feeble; seventh roundly emarginate at tip, toothed laterally.

Female.—Sixth segment evenly rounded behind.

Length 3.6–4.0 mm.

Crescent City, Florida, 10.

This species is remarkable for its very large head and the peculiar structure of the elytra; it should, perhaps, be placed in a subgenus together with *europis*.

The sexual characters are very slight.

8. **A. lugens** n. sp.—Form slender, sub-cylindrical. Pubescence short, sub-erect, sparse, and inconspicuous; surface of the body highly polished. **Head** large and very robust, scarcely two-thirds wider than long; interocular

surface very narrow, scarcely one-third wider than the eye, flat; sulcations almost obsolete and very obscure; punctures rather fine, slightly confused and irregular; ocular lines meeting at one length in advance; eyes extremely large and prominent, twice as long as wide; antennae slightly longer than the width of head, rather slender, piceo-testaceous, becoming much darker and piceous-brown at the tip, club rather prominent; third joint scarcely one-third longer than the fourth, eighth as wide as long, intermediate in width between the seventh and ninth, joints of club robust; maxillary palpi long, piceo-testaceous, becoming nearly flavate at the base, third joint rather robust. **Prothorax** arcuately, gradually, and evenly increasing in width to a point nearly three-fourths the length posteriorly, where it is about one-fifth narrower than long; sides thence feebly convergent and distinctly sinuate; anterior and posterior margins equal in length, the former slightly the more arcuate; surface strongly and nearly evenly convex, finely, closely punctate; punctures round and moderately impressed. **Elytra** at base much narrower than the head; sides feebly divergent posteriorly, much longer than the width at base, rather strongly and evenly arcuate; together broadly, roundly, and very deeply emarginate behind; suture very slightly shorter than the pronotum; surface nearly evenly convex; coarsely, deeply, closely, and evenly punctate. **First** four abdominal segments equal in width, very slightly narrower than the contiguous elytra, cylindrical, strongly constricted at base; border obsolete; surface densely and rather coarsely punctate. **Legs** rather short and slender, piceous-brown, distal tips of femora and basal tips of tibiae very slightly darker; first joint of the posterior tarsi as long as the next two together, second slightly longer than the third; fourth joints strongly bilobed.

Male.—Posterior edge of the fifth ventral segment just visibly, narrowly, and roundly emarginate in the middle, emargination indefinitely terminated laterally; sixth narrowly and deeply incised at apex, incisure one-half deeper than wide, having the anterior and exterior angles very feebly rounded, sides straight; seventh segment narrow at tip, where it is very feebly and roundly emarginate.

Female.—Unknown.

Length 2.8 mm.

Cambridge, Massachusetts, 1.

This is a very distinct species, allied by the form of the head and elytra to *europis* and *megalops*; apparently intermediate between them and the usual type, but having a much greater affinity with the former.

9. **A. plicipennis** n. sp. (Schwarz MS.).—Form rather slender. Pubescence excessively sparse, fine, moderately long, and very inconspicuous. **Head** moderate in size, robust, about twice as wide as long; interocular surface two and one-half times as wide as the eye, slightly convex; sulcations rounded throughout, rather strong; intermediate surface much wider than the lateral portions; punctures moderate in size, round, sparse, very irregularly disposed; medial regions with but one or two punctures; interspaces

convex and very highly polished; ocular lines meeting at about two lengths in advance; antennae much longer than the width of head; very slender, basal joint black, second piecous-black, remainder piecous-brown, club prominent, very loose; joints three to five very long, uniformly and gradually decreasing in length, joints of club increasing in length and thickness; maxillary palpi long, black, piecous-black at the base, third joint rather robust. **Prothorax** widest just behind the middle, where it is distinctly narrower than long; sides thence nearly straight and very slightly convergent anteriorly, moderately convergent and feebly sinuate posteriorly; anterior margin much longer than the posterior, nearly equally and feebly arcuate; surface with an elongated, oblique, impunctate tuberculation near each basal angle, and a median fusiform impunctate and slightly elevated area, beginning slightly in advance of the middle, and extending nearly to the base; punctures rounded, very deeply impressed, somewhat distant and irregularly distributed, entire surface extremely highly polished. **Elytra** at base very slightly narrower than the head; sides rather feebly divergent posteriorly, longer than the width at base, rather strongly arcuate, more strongly so posteriorly; together broadly, roundly, and rather feebly emarginate behind; suture about one-eighth longer than the pronotum; surface slightly uneven near the middle of each elytron, feebly impressed on the suture at the base; punctures round, deep, small, sparse, nearly evenly distributed; interspaces convex and extremely highly polished. **First** four abdominal segments equal in width, cylindrical, slightly narrower than the contiguous elytra; surface polished, somewhat rugulose, very sparsely and indefinitely punctulate; border obsolete; transverse carinae trienspid, middle cusp alone prominent. **Legs** rather short, slender, black throughout; first three joints of the posterior tarsi almost uniformly and very rapidly decreasing in length; fourth strongly bilobed.

Male.—Posterior edge of the fifth ventral segment emarginate in its middle fifth, emargination rounded, very feeble and very unevenly outlined; sixth segment very narrowly and deeply sinuate at apex, sinus very acutely rounded at the bottom, nearly as long as the entire segment, much deeper than wide; seventh broadly emarginate at tip.

Female.—Sixth segment very obtusely rounded behind, almost truncate. Length 3.7–4.0 mm.

Vancouver Island, British Columbia, 7.

This very fine distinct species is conspicuous for the longitudinal impunctate cariniform swelling of the pronotum, and the excessively high polish of the head, pronotum, and elytra.

10. *A. agnatus* n. sp.—Form moderately robust, feebly depressed. Pubescence long, coarse, sub-recumbent, rather sparse, cinereous, and somewhat conspicuous. Entire surface highly polished. **Head** rather small, robust; labrum large; interocular surface much more than twice as wide as the eye, convex; sulcations narrow and moderately distinct; intermediate surface wider than the lateral portions, strongly and evenly convex; punctures rather large, evenly distributed, deeply impressed, rounded, distant generally by less than one-half their widths; ocular lines meeting at some-

what more than two lengths in advance; eyes small; antennae slightly longer than the width of head, slender, basal joint black, remainder dark piceous-brown, club distinct; third, fourth, and fifth joints nearly uniformly and gradually decreasing in length, eighth slightly less robust than the seventh, joints of club of nearly equal width; maxillary palpi short, dark piceo-testaceous. **Prothorax** widest at the anterior angles, where it is slightly narrower than long and about five-sixths as wide as the head; sides gradually convergent to the base and strongly bisinuate; anterior sinns just behind the apical angles, much shorter than the posterior; anterior and posterior margins equally and rather strongly arcuate, the former about one-third longer; anterior angles well marked; surface rather strongly tuberculate near each basal angle, transversely impressed just behind the anterior margin, rather finely and evenly punctate; punctures round, impressed, generally distant by slightly less than their own widths; interspaces slightly convex. **Elytra** at base about as wide as the head; sides feebly divergent posteriorly, nearly one-third longer than the width at base, feebly and almost evenly arcuate throughout; together very broadly, evenly, roundly, and somewhat strongly emarginate behind; apical angles very acute and well marked; surface somewhat depressed, very strongly impressed on the suture throughout its length, each elytron also impressed before the middle and behind the middle exteriorly; punctures rather coarse, round, deeply impressed, evenly distributed, generally distant by their own widths; interspaces moderately convex; suture nearly one-third longer than the pronotum. **Abdominal** segments decreasing uniformly and just visibly in width, first very slightly wider than the contiguous elytra, strongly constricted at base: border nearly obsolete except on the first segment, where it is rather strong; surface finely and rather feebly punctate; transverse carinae not cusped, irregularly toothed and coarsely setose. **Legs** short, slender, piceous-black: first joint of the posterior tarsi as long as the next two together; fourth joints strongly bilobed, lobes slender.

Male.—Unknown.

Female.—Sixth segment transversely and broadly truncate at tip, truncation very feebly bisinuate.

Length 4.3 mm.

British Columbia, 1.

A distinct species, distinguished by the very peculiar form of the prothorax, the prominent anterior angles being observed in no other species of the group in our fauna. In the strong sparse setae growing from the transverse carinae of the abdomen, and in the general character of the surfaces, it bears a resemblance to *plicipennis* of Vancouver Island; the very long elytra and peculiar pronotum will, however, at once distinguish it from any other species.

11. **A. Sayi** n. sp.—Form moderately robust, somewhat depressed. Pubescence rather long, sparse, evenly distributed, sub-recumbent, coarse, cinereous, absent from the middle portions of the abdominal segments. Surface of the body shining, distinctly and minutely reticulated. **Head**

small, twice as wide as long; eyes small, genae distinctly visible behind them; interocular surface more than three times as wide as the eye, feebly convex; sulcations impressed, rounded at the bottom, distinct; intermediate surface broadly, evenly, and moderately convex, slightly wider than the lateral portions; punctures minute, round, impressed, evenly distributed, separated by more than twice their widths; ocular lines meeting at about three lengths in advance; antennae rather short and robust, scarcely longer than the width of head, dark piceo-testaceous, basal joint black, club slightly darker; joints three, four, and five uniformly and very rapidly decreasing in length, seventh and eighth equal in length, the latter more robust, joints of club small, very feebly compressed; maxillary palpi short and robust, rather pale piceo-testaceous. **Prothorax** arcuately, evenly, and moderately rapidly increasing in width to a point slightly in advance of the middle, where it is distinctly narrower than long and five-sixths as wide as the head; sides thence rather more rapidly convergent posteriorly and straight; anterior margin slightly longer than the posterior; somewhat strongly arcuate, the latter nearly straight; surface above nearly flat, with two feeble tuberculations on each side just above the flanks; punctures very small, impressed, very evenly distributed, distant by nearly twice their own widths; interspaces flat. **Elytra** at base just perceptibly narrower than the head; sides moderately divergent posteriorly, distinctly longer than the width at base, straight to within a very short distance of the apices, where they are feebly arcuate; exterior apical angles very acute; together broadly and somewhat strongly emarginate behind; suture nearly one-third longer than the pronotum; surface rather depressed, confusedly, and irregularly undulated throughout, impressed on the suture, more broadly so toward the base; punctures small, deeply impressed, round, nearly evenly distributed, separated by twice their widths; interspaces nearly flat. **Abdominal** segments decreasing uniformly and rather gradually in width, first as wide as the contiguous elytra, feebly constricted at base; surface slightly depressed; border obsolete except on the first segment, where it is very distinct; punctures small, evenly distributed, as large as those of the pronotum and equally distant; transverse carinae not cusped. **Legs** short and slender, black, tarsi distinctly paler; first joint of the posterior nearly equal in length to the next two together; third and fourth joints strongly and nearly equally bilobed.

Male.—Posterior edges of segments two to five emarginate in the middle fifth, emarginations rounded, those of second and fifth segments very feeble, not measurable, not terminated laterally by pronounced angulations, those of the third and fourth stronger and terminated laterally by pronounced, though rounded allosties, contiguous surfaces feebly and cylindrically impressed; sixth segment broadly and deeply sinuate at apex, sinus occupying the entire apex, in the form of a broad triangle in which the anterior angle is rounded, and in which the sides are inwardly curvate, twice as wide as deep; seventh broadly and evenly rounded at apex.

Female.—Sixth segment very narrow, evenly, and strongly rounded behind; seventh emarginate at tip.

Length 4.2–5.3 mm.

California, 10.

A remarkable species, apparently quite local. It may at first sight be confounded with *tarsalis* by the color of the legs and tarsi, but may be distinguished by its peculiar punctuation and sexual characters. It is one of our largest species in this group of Staphylinidae. The genae of the head being visible behind the eyes, renders it distinct from any other occurring in our fauna.

12. **A. amabilis** n. sp.—Form somewhat slender, sub-cylindrical. Pubescence sparse, evenly distributed, cinereous, and inconspicuous. Entire surface very highly polished. **Head** moderate in size, robust, not twice as wide as long; interocular surface one-half wider than the eye, flat; sulcations almost obsolete; intermediate surface very slightly wider than the lateral portions, very sparsely punctate and very feebly convex; lateral portions closely and rather coarsely punctate; ocular lines meeting at about one length in advance, almost exactly straight; antennae distinctly longer than the width of head, slender, pale piceo-testaceous throughout, very uniform in color, club small; third joint about one-fifth longer than the fourth, fourth, fifth, and sixth decreasing gradually in length, eighth elongated, slightly more robust than the seventh, joints of club slightly elongated; maxillary palpi long and slender, pale piceo-testaceous, gradually paler toward base. **Prothorax** arcuately, evenly, and moderately rapidly increasing in width to the middle, where it is nearly one-sixth narrower than long; sides thence rather less rapidly convergent posteriorly and just visibly sinuate; anterior margin slightly shorter and more arcuate than the posterior, the latter nearly straight; surface transversely and feebly impressed just behind the apex, otherwise evenly and rather strongly convex; punctures small, deeply impressed, close, generally tending to coalesce transversely. **Elytra** at base about as wide as the head; sides feebly divergent posteriorly, slightly longer than the width at base, moderately arcuate posteriorly, nearly straight toward the humeri; together broadly, roundly, and very strongly emarginate behind; suture about one-eighth longer than the pronotum; surface rather convex, just visibly and very narrowly impressed on the suture toward the base, rather coarsely and closely punctate; punctures deeply impressed and somewhat unevenly distributed, generally separated by their own widths; interspaces very convex. **First four abdominal segments** nearly equal in width, and but very slightly narrower than the contiguous elytra, cylindrical, feebly constricted at base; border obsolete; punctures evenly distributed, close, deeply impressed, equal in size to those of the pronotum; transverse carinae obscurely and broadly transverse. **Legs** slender, piceous-brown throughout without variation in tint; first joint of the posterior tarsi much shorter than the next two together; fifth as long as the first two together; fourth joints strongly bilobed, lobes long and narrow.

Male.—Unknown.

Female.—Sixth ventral segment very broadly and evenly rounded behind. Length 3.6 mm.

Delaware, 1.

Although somewhat resembling *arculus* Er., this species may be distinguished by the structure of the antennae and tarsi, as well as by the punctuation and general structure of the interocular surface.

13. *A. flavicornis* (Er.).—Form rather slender, very feebly depressed. Pubescence rather sparse, moderate in length, cinereous, fine, more recumbent, and dense on the abdomen. Head large, robust, scarcely twice as wide as long; interocular surface very feebly depressed, three-fourths wider than the eye, rather finely, uniformly, very closely, and deeply punctate; punctures not coalescent, round; surface most deeply impressed near the eyes, gradually rising to the middle, which is broadly and rather feebly convex; ocular lines meeting at three or four lengths in advance, very feebly convergent, nearly straight; antennae long, very slender, flavo-testaceous throughout, club moderate; third joint much more than one-half longer than the fourth, eighth much elongated, all translucent; maxillary palpi very long and slender, pieco-testaceous throughout. Prothorax arcuately, evenly, and rather rapidly increasing in width to a point distinctly in advance of the middle, where it is nearly one-eighth narrower than long and about three-fourths as wide as the head; sides thence rather strongly convergent posteriorly and nearly straight; anterior and posterior margins nearly equal in length, very feebly and equally arcuate; surface nearly evenly convex, nearly evenly, closely, finely, and deeply punctate, nearly impunctate in the middle. Elytra at base slightly narrower than the head; sides very feebly divergent posteriorly, distinctly longer than the width at base, feebly arcuate, more strongly so posteriorly; together broadly, roundly, and somewhat strongly emarginate behind; suture nearly one-fourth longer than the pronotum; surface very feebly impressed on the suture toward the base; punctures round, rather small, deeply impressed, nearly evenly distributed, often distant by more than twice their widths; interspaces nearly flat, polished, finely reticulated. First four abdominal segments equal in width, distinctly narrower than the contiguous elytra, cylindrical, constricted at the base; surface finely, closely, and evenly punctulate, much more finely so toward the apex; border obsolete except on the first segment; transverse carinae not cusped; the second segment is perhaps very slightly narrower than the fourth. Legs very robust, pale pieco-testaceous, tips of the posterior femora darker, tips of the tarsal joints slightly darker; first joint of the posterior tarsi as long as the next two together; fourth joints very strongly bilobed, lobes robust; coxae piecons-black.

Male.—Posterior edges of the second, third, and fourth ventral segments very feebly emarginate in the middle fifth, emarginations extremely feeble, rounded, and increasing in strength posteriorly, being nearly straight on the second, and very distinctly curve on the fourth; fifth segment entire; sixth deeply sinuate at apex, sinus narrower and more acutely rounded than the apices, slightly deeper than wide; seventh very broadly, roundly, and somewhat strongly emarginate at tip.

Female.—Head much narrower; interocular surface relatively broader; ocular lines more convergent; sixth segment very obtusely and broadly rounded behind.

Length 4.6–4.8 mm.

Michigan and Lake Superior (various points), 24; Middle States, 4; Canada, 2; Cambridge, Massachusetts, 2.

A very common, widely diffused species; the female is much more robust than the male.

14. **A. annularis** (Er.).—Form robust, sub-cylindrical. Pubescence rather plentiful, somewhat long, sub-recumbent on the abdomen, more sparse and erect on the remainder of the dorsal surface, cinereous; entire body very highly polished. **Head** moderate, twice as wide as long; interocular surface two-thirds wider than the eye, flat; sulcations rather feeble, rounded, intermediate surface much broader than the lateral portions, having at its base a large impunctate area; punctures moderate in size, closely and polygonally crowded; ocular lines meeting at nearly three lengths in advance; antennae but slightly longer than the width of head, slender, piecous-brown throughout, club robust; third joint more than one-half longer than the fourth, tenth slightly broader than long; maxillary palpi very long and slender, piecous-testaceous throughout, translucent. **Prothorax** widest just in advance of the middle, where it is just perceptibly narrower than long; sides thence arcuate anteriorly, feebly sinuate posteriorly, slightly more convergent in the former direction; anterior margin shorter than the posterior, equally and feebly arcuate; surface rather finely, very closely, and somewhat confusedly punctate, evenly convex, having in the middle of the disk five rather small and irregular impunctate spots. **Elytra** at base very slightly wider than the head; sides parallel, equal in length to the width at base, strongly and evenly arcuate; together broadly, roundly, and strongly emarginate behind; suture nearly one-fourth longer than the prothorax; surface of each elytron very feebly tuberculate near its inner basal angle, punctures round, rather small, very deeply impressed, nearly evenly distributed, generally distant by slightly more than their own widths, interspaces very convex. **Abdominal** segments decreasing scarcely perceptibly in width, first very slightly narrower than the contiguous elytra, sub-cylindrical; border obsolete, except on the first segment, where it is very evident, especially toward the base; surface finely, closely, and evenly punctulate; transverse carinae unispid. **Legs** rather short and robust, femora black at the base, thence reddish-testaceous to the middle, thence black to the tips; tibiae blackish in the basal half, piecous in the distal half; tarsi rather pale piecous-testaceous; first joint of posterior tarsi as long as next two together; fourth joints very strongly bilobed.

Male.—Sixth ventral segment strongly sinuate at apex, sinus narrower and more acutely rounded than the apices, but slightly wider than deep, evenly and narrowly rounded at the bottom; teeth of seventh segment distinct and acute.

Female.—Sixth segment broadly angulate at tip, angle broadly rounded.

Length 5.0–5.5 mm.

Cambridge, Massachusetts, 6; Nebraska, 5; Detroit, Michigan, 1; Illinois, 1; Southern States, 4; Grimsby, Ontario, 12.

This species is perhaps the largest within our territory, and one of the largest of the group. It is very common and widely diffused, although I have not yet seen it from the Pacific coast. The third and fourth ventral segments in the male are very feebly emarginate in the middle at the apices.

In many respects *amularis* resembles the European *cicindeloides*; it differs from it in the relative width of the interocular surface, and in the disposition of the red band about the femora, this being much paler in tint, broader, and extending further from the coxae on the latter. The elytral sculpture is almost exactly similar in the two species.

15. **A. perforatus** n. sp.—Form rather slender, sub-cylindrical. Pubescence sparse, semi-erect, irregularly distributed, moderate in length, cinereous, inconspicuous; entire surface extremely highly polished. Head rather small, robust, much less than twice as wide as long; interocular surface nearly flat, scarcely one-half wider than the eye; sulcations rather strong; intermediate surface about equal in width to the lateral portions, evenly and strongly convex, impunctate; punctures sparse and very irregular in shape, indefinitely coalescent in the sulcations; ocular lines meeting at more than one length in advance; antennae longer than the width of head, uniformly pale piceous-brown, except the club which is darker, the latter moderate in size; third joint very much elongated, three-fourths longer than the fourth, eighth more robust than the seventh, joints of club elongated; maxillary palpi very long, flavate throughout. Prothorax widest at one-third its length from the apex, where it is much narrower than long; sides nearly parallel, rather strongly and evenly arcuate from the apical angles to a point slightly behind the middle, thence very feebly convergent posteriorly and rather strongly sinuate, arcuate at the basal angles; anterior and posterior margins equal in length, equally and moderately arcuate, nearly equal in length to the extreme width of the pronotum; surface evenly convex, sparsely, very irregularly and strongly punctate, a fusiform space in the middle of the disk impunctate; interspaces convex. Elytra at base distinctly wider than the head; sides rather feebly divergent posteriorly, about equal in length to the width at base, strongly and evenly arcuate; together broadly, roundly, and rather strongly emarginate behind; suture very slightly longer than the pronotum; surface very coarsely, deeply, sparsely, and irregularly punctate, a large irregular space near the middle of each elytron impunctate; punctures rounded; interspaces convex. Abdominal segments decreasing scarcely perceptibly in width, first much narrower than the contiguous elytra, nearly cylindrical, each segment strongly constricted at its base; border obsolete; surface very sparsely, finely, and irregularly punctulate; transverse carinae very rudimentarily tricuspid. Legs slender, rather long, piceo-fuscous, tarsi

and bases of the tibiae paler; first joint of the posterior tarsi as long as the next three together; fourth joints narrowly bilobed, lobes long.

Male.—Unknown.

Female.—Sixth ventral segment very narrow, obtusely rounded behind.

Length 4.1 mm.

Arizona (Morrison), 2.

The entire surface of the body is of an intense black, and is very highly polished. The very sparse, coarse, deep punctuation, taken in conjunction with the cylindrical form of the prothorax, and the peculiar structure of the head, will render this species easily recognizable.

16. *A. nifescens* n. sp.—Form rather slender, sub-cylindrical. Pubescence extremely sparse, semi-erect, cinereous, inconspicuous. Body extremely highly polished. **Head** moderate or small, nearly twice as wide as long; interocular surface flat, very feebly and irregularly convex in the middle, where it is almost impunctate; sulcations obsolete; punctures moderate in size, round, deeply impressed, very close toward the eyes; ocular lines meeting at slightly more than two lengths in advance; supra-antennal tuberculations prominent, elongated, impunctate; surface between them confusedly rugulose; antennae short, scarcely as long as the width of head, somewhat slender, very dark piceous, basal joint somewhat paler, club moderate; third joint one-half longer than the fourth, eighth more robust than the seventh, joints of club slightly elongated; maxillary palpi rather robust, dark piceo-testaceous throughout. **Prothorax** arenately, evenly, and rapidly increasing in width to the middle, where it is distinctly narrower than long; sides thence rather less strongly convergent posteriorly and very feebly sinuate; anterior margin very slightly longer than the posterior, equally and rather feebly arcuate; surface strongly convex; punctures rather large, deeply impressed, round, rather irregularly distributed; a narrow fusiform space in the middle impunctate. **Elytra** at base about equal in width to the head; sides very feebly divergent posteriorly, slightly longer than the width at base, nearly straight near the humeri, strongly arcuate posteriorly; together broadly, somewhat angularly and strongly emarginate behind; suture about one-sixth longer than the pronotum; surface very strongly convex, feebly and narrowly impressed on the suture toward the base; punctures rather large, round, very deeply impressed, evenly distributed, generally distant by more than their own widths; interspaces convex. **Abdominal** segments decreasing uniformly and rather rapidly in width, first distinctly narrower than the contiguous elytra, cylindrical, feebly constricted at base; border obsolete, except at the base of the first segment, where it is very narrow; surface deeply punctured; punctures round, nearly as large as those of the pronotum, evenly distributed, distant by more than their own widths; transverse carinae not cusped. **Legs** slender, piceous-black, basal extremities of the tibiae piceo-testaceous, tarsi rather slender; first joint of the posterior slightly longer than the next two together.

Male.—Posterior edge of the fifth ventral segment just perceptibly and narrowly emarginate in the middle; sixth narrow, truncate at tip, lateral

angles rounded, middle of truncation sometimes just perceptibly sinuate; terminal setae of seventh segment very long and strong.

Female.—Sixth segment rounded behind at the immediate apex, lateral portions of tip feebly sinuate.

Length 3.6–4.0 mm.

Florida, 6.

In this species the sexual characters become very feeble; it can be distinguished from *callosus* Er. by this character, as well as by the dark legs, antennae, and palpi.

17. *A. pollens* n. sp.—Form rather robust. Pubescence moderate in length, dense, coarse, conspicuous, cinereous. **Head** robust, twice as wide as long; labrum very prominent; interocular surface two and one-half times as wide as the eye, feebly convex; sulcations somewhat feebly rounded, impressed; intermediate surface much wider than the lateral portions, rather strongly and evenly convex; punctures round, evenly distributed, rather small, distant by their own widths; ocular lines meeting at nearly three lengths in advance; antennae rather short and robust, as long as the width of head, pale brownish-testaceous, basal joint nearly black, club just visibly darker, moderate in size; third joint two-thirds longer than the fourth, as long as the next two together, eight to eleven gradually increasing in thickness; maxillary palpi robust, rather long, dark piceo-testaceous throughout, third joint infusate toward tip, second twice as long and thick as the first. **Prothorax** widest in the middle; sides thence equally and moderately convergent anteriorly and posteriorly, slightly arcuate in the former, nearly straight in the latter direction; anterior and posterior margins equal in length, the former slightly arcuate, the latter nearly straight; surface strongly swollen at a short distance from each basal angle, also very feebly swollen a little in advance of the middle at each side; punctures rounded, small, feebly impressed, somewhat unevenly distributed, generally distant by a little less than their own widths, slightly coalescent toward the base; interspaces flat, polished, grayish-black. **Elytra** at base as wide as the head; sides feebly divergent posteriorly, longer than the width at base, straight to within a very short distance of the apices, where they are feebly arcuate; together rather broadly, roundly, somewhat feebly emarginate behind; internal edges of the elytra slightly divergent at the apices; suture nearly one-half longer than the pronotum; surface depressed, rather broadly and strongly impressed along the suture, more widely so at the base; also longitudinally and feebly impressed near each humeral angle; punctures moderately coarse, deeply impressed, evenly distributed, distant by two-thirds their own widths; interspaces feebly convex, shining, grayish-black, minutely reticulated. **Abdomen** very prominent, segments diminishing just visibly and evenly in width to the fifth, sixth narrower, all nearly cylindrical, border obsolete except on the first; surface polished, minutely, sparsely, and evenly punctulate; transverse carinae not cusped, ciliate; cilia absent from a small space in the middle of each. **Legs** rather short and slender, black, tarsi piceous-black; first joint of the posterior much shorter than the last, scarcely as long as the next two together; third joints less strongly bilobed than the fourth.

Male.—Posterior edge of the third ventral segment just visibly emarginate in the middle sixth, emargination evenly rounded, not measurable, contiguous edge distinctly and narrowly beveled; fourth segment emarginate in the middle sixth at apex, emargination rounded, ten to twelve times as wide as deep, terminated laterally by rounded prominences, contiguous surface impressed for a short distance anteriorly; fifth scarcely perceptibly modified; sixth deeply and broadly incised at apex, incisure occupying nearly the entire tip, anterior angle narrowly rounded, sides straight, about twice as wide as deep; seventh segment very large and prominent, rounded behind, lateral spinous setae short and robust.

Female.—Sixth segment rather narrow, acutely angulate at apex, sides of angle nearly straight; seventh rather narrow, bilobed at tip. Third tarsal joints almost as strongly bilobed as the fourth. Posterior femora not as irregularly swollen in the middle as in the male; smaller in size.

Length 4.1 ♀—5.2 ♂ mm.

Tenino, Washington Territory, 4; California, 1.

The specimen from California agrees very well with the male from Tenino, but has the tarsi and palpi paler, and the fifth segment broadly, roundly, and quite appreciably emarginate behind; the incisure of the sixth segment is slightly smaller but similarly shaped.

The very large seventh segment in the male, and the great disparity in the sizes of the male and female, as well as the very large and prominent abdomen, in which the fifth segment is as wide as the contiguous elytra, are distinguishing features of this species. It must be considered in some respects as one of the aberrant species of the genus.

The tarsal claw is figured on the plate, fig. 10.

18. *A. patens* n. sp.—Form as in *pollens*. Pubescence moderate in length, dense, semi-erect, coarse, cinereous, conspicuous. **Head** robust, scarcely twice as wide as long; labrum very prominent and broad; interocular surface two and one-half times as wide as the eye, moderately convex; sulcations narrow and rather feeble; intermediate surface broadly convex; punctures rather large, deeply impressed, round, distant by much less than their own widths in the convex portions, confused in the sulcations; ocular lines very convergent, meeting at less than one-half a length in front of the labrum; antennae short and robust, scarcely longer than the width of head, basal joint black, remainder dark brownish-testaceous, club slightly darker; third joint one-half longer than the fourth, not as long as the next two together, seventh much longer and slightly more robust than the eighth, tenth more robust than the eleventh; maxillary palpi short, very robust, basal joint rather slender, testaceous, second and third dark piceous, second joint slightly bent, flattened. **Prothorax** distinctly longer than wide; base and apex equal in length, nearly transverse; sides arcuate, most strongly so just behind the apical angles, nearly straight toward the base; surface obliquely tuberculate near each basal angle, very feebly swollen on each side

Just in advance of the middle; punctures moderately impressed, rounded, very close, somewhat confused. **Elytra** at base slightly wider than the head; sides very slightly divergent posteriorly, much longer than the width at base, very feebly arcuate; together broadly, roundly, and rather feebly emarginate behind; suture nearly one-half longer than the pronotum; surface strongly and somewhat unevenly punctate; punctures round, rather deeply impressed, somewhat close; interspaces early flat, minutely reticulated. **First** four abdominal segments decreasing scarcely perceptibly in width, first as wide as the contiguous elytra, sub-cylindrical; border apparent on the first only; transverse carinae very obscurely cusped in the middle, where they are more free from pubescence than laterally; surface rather closely, evenly, and very strongly punctulate; punctures nearly as large as those of the elytra. **Legs** short and rather slender, black, tarsi very dark piceous-brown; first three joints of the posterior almost uniformly decreasing in length; all the joints very densely pubescent beneath.

Male.—Unknown.

Female.—Sixth ventral segment long, rather narrow, rapidly becoming narrower posteriorly throughout its length, narrowly rounded at the tip, surface having a broadly rounded, rather feeble canalliculation traversing nearly its entire length; seventh segment bilobed at tip.

Length 5.0 mm.

Alamosa, Colorado, 1.

This species gently resembles *pollens*, but differs specifically in the structure of the palpi and sixth ventral segment, also most decidedly in the stronger punctuation of the abdomen above and beneath.

19. **A. reconditus** n. sp.—Form robust, slightly depressed. Pubescence rather close, evenly distributed, semi-erect, short, cinereous, somewhat conspicuous. **Head** rather small, robust, not twice as wide as long; interocular surface slightly convex, slightly more than twice as wide as the eye; sulcations broadly rounded, feeble; intermediate surface evenly and moderately convex, slightly wider than the lateral portions; punctures small, round, deeply impressed, evenly distributed and very close, separated generally by less than one-half their own widths; ocular lines meeting at two lengths in advance; antennae slightly longer than the width of head, rather robust; basal joint black, second joint and funicle pale testaceous, club castaneous, large; third joint one-half longer than the fourth, joints six, seven, and eight decreasing in length, the latter more robust, joints of club slightly elongate, last two much larger than the ninth; maxillary palpi piceo-testaceous, paler toward the base, infusate toward the apex. **Prothorax** arcuately, evenly, and very gradually increasing in width to a point slightly behind the middle, where it is slightly narrower than long; sides thence more rapidly convergent posteriorly and distinctly sinuate; posterior margin slightly longer than the anterior, nearly straight, the latter very feebly arcuate; surface feebly and distantly tuberculate at the base, otherwise very evenly convex; punctures very fine, deep, round, close, and evenly distributed; interspaces one-third as wide as the punctures, acutely convex,

shining, grayish-black. **Elytra** at base as wide as or just perceptibly wider than the head; sides nearly parallel, longer than the width at base, feebly arcuate, slightly more strongly so posteriorly; together broadly, roundly, and somewhat feebly emarginate behind; suture one-third longer than the pronotum; surface very feebly impressed on the suture toward the base; punctures much larger than those of pronotum, deeply impressed, somewhat polygonal or rounded, nearly evenly distributed, usually distant by one-half their widths; interspaces moderately convex, finely reticulated, shining, grayish-black. **Abdominal segments** decreasing uniformly and moderately in width, first slightly narrower than the contiguous elytra, nearly cylindrical, feebly constricted at base; border obsolete, except on the first segment, where it is distinct; surface very closely, deeply, and evenly punctate; punctures as large as those of the pronotum. **Legs** moderate, black, tarsi paler; joints two to four strongly bilobed, spongy beneath.

Male.—Sixth ventral segment broadly and strongly sinuate at tip, sinus occupying the entire apex, in the form of a triangular incisure, with the angle broadly rounded, about twice as wide as deep; seventh broadly rounded at tip, lateral setae strong.

Female.—Sixth segment acutely rounded at the middle of the apex, lateral portions of apex feebly sinuate. Abdominal segments much more robust. Length 3.9-4.6 mm.

Cambridge, Massachusetts, 69; Lake Superior, 2; Iowa, 1.

This species differs from *tarsalis* Ljungh in the emargination of the elytra behind, which is very much stronger in the European species. They also differ in the structure of the tarsal claws, as may be seen from the plate.

20. **A. propinquus** n. sp.—Form rather slender. Pubescence short, evenly distributed, somewhat sparse, cinereous, not conspicuous; surfaces polished, deep black: **Head** rather small, slightly more than twice as wide as long; interocular surface feebly convex, three times as wide as the eye; sulcations very feeble, short, almost obsolete; intermediate surface much wider than the lateral portions, broadly and evenly convex; punctures coarse, round, evenly distributed, very deep, distant by slightly more than one-half their own widths; ocular lines meeting at more than two lengths in advance; antennae short and robust, scarcely as long as the width of head, basal joint black; remainder brownish-testaceous, club not prominent, scarcely darker; third joint three-fourths longer than the fourth, fourth and fifth equal in length, seventh longer than the eighth, almost equally robust, tenth much the most robust, terminal joint much smaller and slightly shorter than the tenth; maxillary palpi very short and robust, very dark picuous, slightly paler at the base, third joint strongly flattened. **Prothorax** arcuately and very gradually increasing in width for two-thirds the length posteriorly, where it is much narrower than long, and three-fourths as wide as the elytra at base; sides thence rather more rapidly convergent posteriorly and distinctly sinuate; anterior margin slightly longer than the posterior, equally and very feebly arcuate; surface feebly tuberculate near each basal

angle; punctures rather coarse, round, evenly distributed, very deeply impressed, distant generally by less than one-half their own widths; interspaces feebly convex. **Elytra** at base about as wide as the head; sides very feebly divergent posteriorly, much longer than the width at base, feebly arcuate, very slightly more strongly so toward the apices; together broadly, roundly, and rather feebly emarginate behind; suture one-third longer than the pronotum; surface feebly impressed along the suture, much more broadly and strongly so toward the base; punctures large, round, very deeply impressed, nearly evenly distributed, distant by nearly their own widths; interspaces feebly convex, scarcely visibly reticulated. **Abdominal** segments decreasing uniformly and rather gradually in width, first as wide as the contiguous elytra, cylindrical; border rather strong on the first, nearly obsolete on the remainder; surface coarsely, closely, evenly, and very deeply punctate; punctures as large as those of the pronotum, but more distant; transverse carinae tricuspid, cusps becoming very obscure and indefinite beyond the second segment. **Legs** short and slender, black, tarsi dark picaceous-brown; first three joints of the posterior decreasing nearly uniformly and rather gradually in length, first shorter than the last; fourth joints very strongly bilobed, third less strongly so; all densely, and in part spongy-pubescent beneath.

Male.—Unknown.

Female.—Sixth ventral segment rather narrow, sides nearly straight, rather rapidly convergent toward apex, the latter strongly angulate, sides about the angle nearly straight.

Length 4.2 mm.

New Hampshire, 1.

Easily distinguished from *reconditus*—a very common species about Boston, Massachusetts—by its narrower form, smaller head, coarser and more distant elytral punctuation, and more intensely black integuments.

The tarsal claw is seen from the figure to approach in general outline that of *reconditus*, but has the tip more acute and further prolonged.

The figures of the claws drawn on the plate are merely intended to give the outline when viewed in prolongation of the axis of the last tarsal joint, and are not drawn to any scale, so that the relative sizes of the figures are not the same as those of the claws from which they were taken.

21. **A. canadensis** n. sp.—Form moderately robust. Pubescence rather short and dense, semi-erect, evenly distributed, cinereous, rather coarse and conspicuous. **Head** moderate in size, robust, twice as wide as long; labrum large; interocular surface feebly convex, more than two and one-half times as wide as the eye; sulcations almost obsolete; intermediate surface broadly and feebly convex; punctures rather small, round, very deep, evenly distributed except in the sulcation where they are more closely crowded,

generally distant by less than one-half their widths; interspaces very feebly convex; ocular lines meeting at two lengths in advance; antennae rather slender, as long as the width of head, basal joint black, remainder dark brownish-testaceous, club distinctly darker; third joint slightly more than one-half longer than the fourth, seventh much longer and slightly less robust than the eighth, joints of club robust; maxillary palpi long, joints one and two slender, the former flavate, the latter slightly darker, testaceous, third joint slender at base, becoming strongly enlarged toward the tip, dark castaneous toward the apex. **Prothorax** widest distinctly behind the middle, where it is slightly narrower than long; sides thence very feebly convergent and somewhat unevenly arcuate anteriorly, more rapidly convergent and feebly sinuate posteriorly; anterior margin longer than the posterior, equally and very feebly areolate; surface nearly evenly convex throughout, rather coarsely, very closely, deeply, and somewhat unevenly punctate; punctures round, generally distant by one-half their widths. **Elytra** at base about equal in width to the head; sides rather feebly divergent posteriorly, distinctly longer than the width at base, nearly straight to within a very short distance of the apices, where they are feebly areolate; together broadly, somewhat angularly and feebly emarginate behind; surface rather depressed, broadly and feebly impressed on the suture toward the base, coarsely and somewhat loosely punctate; punctures round, deeply impressed, nearly evenly distributed, distant by nearly their own widths; interspaces rather convex, polished, deep black, scarcely visibly reticulated. **Abdominal** segments decreasing uniformly and very gradually in width, first as wide as the contiguous elytra, nearly cylindrical after the first; border nearly obsolete except on the first segment; surface deeply, closely, rather coarsely, and evenly punctate; punctures very deeply impressed, as large as those of the pronotum; transverse carinae indefinitely cusped in the middle. **Legs** short and slender, black, tarsi pale brownish; first joint of the posterior not as long as the next two together, distinctly shorter than the last; fourth joints very strongly bilobed, third very deeply emarginate at tip.

Male.—Unknown.

Female.—Sixth ventral segment very long, narrowly and obtusely rounded at the immediate apex, sides thence widely divergent and feebly sinuate to the lateral edges of the segment; seventh segment narrowly and deeply bilobed at tip.

Length 5.0 mm.

Grimsby, Ontario, 4; Northern Illinois, 1.

The tarsi of the specimen from Illinois are much more densely and coarsely hirsute, and the seventh segment is more deeply bilobed at tip than in those from Ontario.

The above-described species resembles *pollens* from Washtington Territory in general appearance and size, but in scarcely any other feature; the punctuation is very much coarser and more sparsely distributed on the elytra, and is much more dense, deep, and prominent on the abdomen.

The tarsal claw figured on the plate resembles in general outline that of *propinquus*, but is much thicker and shorter, especially toward the tip.

22. *A. pinguis* n. sp.—Form very robust. Pubescence short, semi-erect, evenly distributed, rather dense and moderately conspicuous, cinereous. **Head** small, twice as wide as long; interocular surface very feebly convex, two and one-half times as wide as the eye; sulcations very feeble; intermediate surface broadly and evenly convex; punctures rather large, round, deeply impressed, evenly distributed, very close but not coalescent; interspaces nearly acute; ocular lines meeting at more than two lengths in advance; antennae rather short and robust, as long as the width of head, basal joint black, remainder pale testaceous, club very slightly darker, not prominent; third joint one-half longer than the fourth, seventh much longer than the eighth, almost equal in thickness, last two joints much wider and longer than the ninth; maxillary palpi rather long, testaceous, third joint flattened, infusate toward tip. **Prothorax** arcuately and very gradually increasing in width to the middle, where it is distinctly narrower than long; sides thence moderately convergent posteriorly and just perceptibly sinuate; anterior and posterior margins nearly equal in length and curvature, feebly arcuate; surface feebly swollen near each basal angle, evenly and very closely punctate; punctures deep, not coalescent, near the base almost polygonally crowded, rather coarse. **Elytra** at base slightly wider than the head; sides very feebly divergent posteriorly, very feebly arcuate, longer than the width at base; together broadly, somewhat angularly and rather strongly emarginate behind; suture more than one-third longer than the pronotum; surface feebly impressed along the suture, more broadly so toward the base, very closely and evenly punctate; punctures round, very deep, rather coarse; interspaces very narrow. **Abdominal** segments decreasing uniformly and rapidly in width, first slightly narrower than the contiguous elytra, nearly cylindrical; border obsolete except on the first segment, where it is rather strong; surface closely, deeply, and evenly punctate; interspaces very narrow; transverse carinae not cusped, unevenly undulated. **Legs** short and slender, black, tarsi dark piceous-brown; first joint of the posterior not as long as the next two together, slightly shorter than the last; third joints much less strongly bilobed than the fourth.

Male.—Third and fourth ventral segments just perceptibly modified in the middle fourth at apex, being feebly flattened; fifth segment not modified, posterior edge very minutely spongy; sixth broadly incised at apex, incisure occupying the entire apex, anterior angle rounded slightly, sides nearly straight, fully three times as wide as deep; seventh broadly rounded behind.

Female.—Sixth segment acutely rounded at the immediate apex, sides thence slightly sinuate anteriorly; tip of the seventh segment truncate, having a narrow emargination in the middle of the truncation.

Length 4.0 mm.

British Columbia, 13; Thurston County, Washington Territory, 1; Oregon, 1; Lake Tahoe, Nevada, 1; California, 15; Colorado, 2.

The specimens associated above differ among themselves to a slight degree in several particulars. In the Californian specimens the punctures are not so closely crowded as in the typical male, which is from British Columbia. The Southern specimens also appear to have paler and much more pubescent tarsi. There is one male from Colorado, in which the sexual modification is slightly different, the incisure of the sixth segment being relatively deeper, and having the sides of the notch distinctly areolate; in this specimen, also, the seventh segment is more strongly and narrowly rounded behind. These specimens resemble each other so closely, that the most careful scrutiny with a hand lens fails to show any difference which may not be accidental, and I have, therefore, concluded to unite them all.

The tarsal claw of this species is shown on the plate, fig. 14.

23. **A. utensis** n. sp.—Form robust. Pubescence short, rather sparse and coarse, semi-erect, evenly distributed, very dark cinereous in color, not very conspicuous. Head moderate, slightly more than twice as wide as long; labrum very prominent; interocular surface nearly three times as wide as the eye, very feebly convex; sulcations narrow, very feeble; intermediate surface twice as wide as the lateral portions, broadly and feebly convex; punctures rather small, round, deep, nearly evenly distributed, distant by less than one-half their own widths; ocular lines convergent, meeting at about one length in advance; antennae as long as the width of head, funicle rather slender, club elongated, not prominent, compact, basal joint black, remainder translucent, dark testaceous, club distinctly darker; third joint one-third longer than the fourth, seventh much longer than the eighth, nearly equal in thickness, joints of club increasing slowly in length, tenth almost exactly cylindrical throughout its length; maxillary palpi long, third joint rather slender, nearly as long as the first two together, first two joints and the base of the third translucent, flavo-testaceous, third infusate toward tip. Sides of prothorax for two-thirds the length posteriorly nearly parallel, rather strongly and evenly areolate, thence rather strongly convergent to the base and just visibly sinuate; anterior margin slightly longer than the posterior, both nearly straight; disk of pronotum very slightly narrower than long, very feebly swollen near each basal angle; punctures deep, rather coarse, very close, round, and nearly evenly distributed, varying slightly in size, generally distant by one-half their widths. Elytra at base very slightly wider than the head; sides nearly parallel, slightly longer than the width at base, feebly and somewhat unevenly arcuate throughout; together broadly, roundly, and moderately emarginate behind; suture two-fifths longer than the pronotum; surface broadly and extremely feebly impressed along the suture, elsewhere very feebly and indefinitely undulated, nearly even; punctures coarser toward the apices, somewhat unevenly distributed, deeply impressed, generally separated by nearly their own widths; interspaces very feebly convex, polished, scarcely visibly reticulated. Abdominal segments decreasing uniformly and rather rapidly in width, first as wide as the con-

tiguous elytra, sub-cylindrical after the first, which alone is distinctly margined; surface very deeply, closely, evenly, and rather coarsely punctate; punctures about as large as those of the elytra; interspaces feebly convex, narrower than the punctures, highly polished. **Legs** short and slender, black, tarsi rather dark piceous-brown, joints very robust, densely hirsute, especially beneath; first joint scarcely two-thirds as long as the last; fourth joints very strongly bilobed, third very deeply emarginate at tip.

Male.—Sixth segment broadly incised, incisure occupying the entire segmental width at apex, sides nearly straight, anterior angle rather broadly rounded, exterior angles rounded, width nearly four times the depth; seventh segment obtusely rounded behind.

Female.—Sixth segment angularly and acutely produced at tip, sides of angle very feebly sinuate.

Length 3.8-4.4 mm.

Fort Garland, Colorado, 7.

This species approximates more closely to the European *tarsalis* Ljungh than any other which I have been able to examine; it differs from that species as follows:—

The elytral punctuation in *tarsalis* is more even in distribution and in the size of the punctures, the elytra together are shorter and more strongly emarginate behind, and the maxillary palpi are shorter and more robust than in *utenis*.

In the former the tarsi are less robust, less strongly pubescent, and have the first joint relatively longer than in the latter.

The sixth segment in the female of *tarsalis* is more obtuse behind, and more acutely and abruptly produced as a cusp-like point at the immediate apex than in the like sex of *utenis*.

There are other differences, especially in the more robust shape of the American species, which might be given, but the above will serve to show that the two species are almost unquestionably distinct.

The tarsal claw as figured, plate, fig. 15, is seen to be more abruptly bulbous at the base than that of *tarsalis*. The conformation of this appendage does not vary appreciably with sex, as far as I have been able to observe.

24. **A. trajectus** n. sp.—Form robust. Pubescence rather long, fine, evenly distributed, sub-recumbent, dark cinereous, moderately conspicuous. **Head** moderate in size; labrum broad, rather prominent; interocular surface two and one-half times as wide as the eye, flat; sulcations narrow, convergent, rather feeble; intermediate surface twice as wide as the lateral portions, very feebly and broadly convex; punctures rather irregular in outline, close, almost evenly distributed; ocular lines meeting at two lengths in advance; antennae rather longer than the width of head, somewhat slender, club moderate, basal joint piceous-black, remainder pale testaceous, club just visibly darker; third joint one-half longer than the fourth, joints of club

increasing rapidly in length, eleventh almost as long as the ninth and tenth together; maxillary palpi rather long and slender, translucent, pale testaceous throughout, reddish toward the tip, more flavate toward the base, third joint much shorter than the first two together. **Prothorax** widest at the middle, where it is distinctly narrower than long; sides thence rather feebly convergent and slightly arcuate anteriorly, slightly more strongly convergent posteriorly and nearly straight; anterior margin slightly longer than the posterior, both nearly straight; surface nearly evenly convex, very closely, rather coarsely and somewhat irregularly punctate; punctures irregularly polygonal, very closely crowded at some points. **Elytra** at base about as wide as the head; sides feebly divergent posteriorly, very slightly longer than the width at base, very feebly arcuate, nearly straight toward the humeri; together very broadly, roundly, and rather strongly emarginate behind; suture one-fifth longer than the pronotum; surface broadly and very feebly impressed on the suture at the base, elsewhere evenly convex; punctures evenly distributed, nearly round, deep, distant by slightly more than one-half their widths; interspaces rather strongly convex, polished, very feebly reticulated. **Abdominal** segments decreasing uniformly and rapidly in width, cylindrical, first just perceptibly narrower than the contiguous elytra; first very narrowly margined, remainder not margined; surface deeply, closely, evenly punctate; punctures round, smaller than those of elytra, distant by less than their own widths. **Legs** short, black, tarsi pale flavate; first joint of the posterior elongated, as long as the next two together, slightly longer than the fifth; second nearly twice as long as the third; fourth joints moderately bilobed, third moderately emarginate at tip.

Male.—Unknown.

Female.—Sixth ventral segment very obtuse behind, very broadly angulate at the middle, angle not rounded, sides nearly straight.

Length 3.8–4.5 mm.

Veta Pass, Colorado, 2.

Very readily distinguished from any other in this vicinity by the peculiar structure of the tarsi.

The tarsal claws are nearly simple and very slender, as may be seen in the figure.

25. **A. papagonis** n. sp.—Form robust, somewhat depressed. Pubescence rather short, evenly distributed, somewhat dense, and but moderately conspicuous, cinereous. **Head** rather large, twice as wide as long; labrum moderate; eyes prominent; interocular surface slightly more than twice as wide as the eye, slightly convex; sulcations very feeble; intermediate surface more than twice as wide as the lateral portions, broadly and rather strongly convex; punctures round, rather small, very deep, evenly distributed, distant by less than one-half their widths; ocular lines rather convergent, meeting at less than two lengths in advance; antennae moderately robust, scarcely longer than the width of head, basal joint black, remainder pale yellowish-testaceous, club scarcely darker, not very prominent; third joint two-thirds longer than the fourth, not as long as the next two together,

seventh much longer and slightly less robust than the eighth, ninth nearly as large as the tenth; maxillary palpi long and slender, pale flavo-testaceous throughout, third joint as long as the first two together. **Prothorax** widest in the middle, where it is much narrower than long, and scarcely more than three-fourths as wide as the head; sides taence slightly more convergent posteriorly than anteriorly, nearly straight in both; prominently angulate at the widest section; anterior margin slightly longer than the posterior, equally and extremely feebly arcuate; surface just visibly and minutely swollen near each basal angle, elsewhere very evenly convex; punctures very deep, round, nearly evenly distributed, rather small, distant by less than one-half their widths. **Elytra** at base about equal in width to the head; sides nearly parallel, distinctly arcuate, very slightly longer than the width at base; together broadly, roundly, and rather strongly emarginate behind; suture one-fourth longer than the pronotum; surface somewhat depressed, very feebly impressed along the suture, very even; punctures rather coarse, very close, evenly distributed, deep, distant by about one-half their widths; interspaces nearly flat, highly polished, very intense black. **Abdominal** segments decreasing uniformly and very gradually in width, first as wide as the contiguous elytra, sub-cylindrical after the first; border nearly obsolete, except on the first where it is prominent; surface very deeply, closely, and evenly punctate; punctures as large as those of the pronotum; transverse carinae slightly cused in the middle. **Legs** moderate in length, slender, black, tarsi pale fulvo-testaceous; first joint of the posterior as long as the last two together, also as long as the second and third together, second nearly twice as long as the third; fourth joints small, lobes small; third joints very deeply emarginate at tip.

Male.—Unknown.

Female.—Sixth ventral segment broad and very obtuse behind, produced in the middle in the form of a broad cusp, point very feebly rounded, sides near the cusp feebly sinuate.

Length 4.4 mm.

Arizona, 3.

The punctuation, very deep, close, and regular, reminds us of that of *pinguis*, from the Pacific Coast. The integuments in this species are of an intense black, differing from the usual grayish-black of the more closely-allied species. The large head, sub-quadrate depressed elytra, very pale palpi and tarsi, and deep dense punctuation, will aid in identifying it.

The conformation of the tarsal claw is shown on the plate; it is much more slender and less abnormal than in other species in this vicinity.

26. **A. obsoletus** n. sp.—Form rather slender, sub-cylindrical. Pubescence short, rather coarse, moderately sparse, evenly distributed, cinereous. **Head** rather small, scarcely twice as wide as long; interocular surface nearly flat, three-fourths wider than the eye; equally divided by the sulcations,

which are scarcely visible; punctures large, round, deeply impressed; evenly distributed, distant by about one-half their own widths; interspaces polished; ocular lines meeting at about one length in advance; antennae much longer than the width of head, pale testaceous, darker toward tip, slender, club moderate; third joint one-half longer than the fourth, eighth more robust than the seventh, joints of club slightly elongated; maxillary palpi slender, long, flavate, third joint slightly dusky toward tip. **Prothorax** arcuately, evenly, and gradually increasing in width to the middle, where it is four-fifths as wide as the head and distinctly narrower than long; sides thence rather more rapidly convergent posteriorly and feebly sinuate; anterior and posterior margins equal in length and curvature, rather feebly arcuate; surface closely, finely, deeply, and evenly punctate; interspaces convex and polished. **Elytra** at base about equal in width to the head; sides rather feebly divergent posteriorly, slightly longer than the width at base, rather strongly arcuate, more strongly so posteriorly; together broadly, roundly, and rather strongly emarginate behind; suture nearly one-fourth longer than the pronotum; surface convex, slightly impressed on the suture toward the base, closely, nearly evenly, rather finely, and very deeply punctate; interspaces narrower than the punctures, very convex, polished. **Abdominal** segments cylindrical, decreasing uniformly and rather rapidly in width, first distinctly narrower than the contiguous elytra; border obsolete; surface very closely, coarsely, deeply, and conspicuously punctate; each segment strongly constricted at base; transverse carinae not cusped, finely undulated. **Legs** rather long and slender, piceo-fuscous, femora much paler beneath; first three joints of the posterior tarsi uniformly decreasing in length; fourth joints strongly bilobed.

Male.—Sixth segment very narrowly and deeply incised, angle of incisure very slightly rounded, nearly acute, depth more than twice its width; seventh segment narrowly and feebly emarginate at tip, emargination rounded, teeth small, acute, inclined inward.

Female.—Sixth segment broadly and obtusely rounded behind. Elytra at base usually slightly wider than the head; form more robust; abdomen wider. Length 3.0 mm.

Grimsby, Ontario, 5.

This species bears a great resemblance to *punctatus* (Er.), and also to *artus*. It differs from the former in its more slender form and finer punctuation, and especially in its much more slender prothorax; from *artus* it differs in the form of the pronotum, which in that species is very slender and notably narrowed anteriorly.

27. **A. artus** n. sp.—Form very slender. Pubescence sparse, very fine, semi-erect, dark plumbeous, scarcely visible; entire surface of the body highly polished. **Head** rather small, robust, much less than twice as wide as long; interocular surface nearly flat, one-half wider than the eye; sulcations narrow, not conspicuous; intermediate surface as wide as the lateral portions, very feebly convex; punctures large, round, deeply impressed, nearly evenly distributed except in the sulcations, where they are slightly

smaller and more crowded; supra-antennal tuberculations long, narrow, impunctate, prominent; ocular lines meeting at scarcely one length in advance; antennae much longer than the width of head, rather pale piceous-brown, slightly darker toward tip, basal joints paler, opaque, ochreous; third joint one-third longer than the fourth, seventh much longer than the eighth, less robust, ninth and tenth scarcely longer than wide, last more elongated; maxillary palpi very long and slender, pale flavate, third joint very slightly clouded toward tip, very slender, much shorter than the first and second together. **Prothorax** arenately and rather rapidly increasing in width to a point slightly behind the middle, where it is much narrower than long; sides thence very feebly convergent posteriorly and distinctly sinuate; anterior margin distinctly shorter and more arcuate than the posterior; the latter nearly straight, and but very slightly shorter than the greatest width of the prothorax; surface evenly and strongly convex, rather coarsely, closely, and evenly punctate; punctures deeply impressed; interspaces convex; along the middle for a short distance there is a narrow canalization, terminating at equal distances from the bases, and apparently formed by coalescent punctures. **Elytra** at base as wide as the head; sides nearly parallel, slightly longer than the width at base, rather strongly arcuate, slightly more strongly so posteriorly; together broadly, roundly, and very strongly emarginate behind; suture scarcely one-eighth longer than the pronotum; surface very convex, feebly and narrowly impressed along the suture, very coarsely, closely, and evenly punctate; punctures round, deeply impressed, distant by less than their own widths; interspaces very convex. **Abdominal** segments decreasing uniformly and very gradually in width, first distinctly narrower than the contiguous elytra, cylindrical, slightly constricted at base; surface rather coarsely, very closely, and evenly punctate; punctures rather irregular in outline, somewhat deeply impressed, becoming much smaller and slightly more distant on the posterior segments; transverse carinae not cusped, arcuate in the middle, finely and somewhat feebly undulate along the posterior edges. **Legs** short and robust, pale opaque yellowish-brown in color; first joint of the posterior tarsi slightly shorter than the next two together, distinctly shorter than the fifth; fourth joints strongly bilobed, lobes narrow.

Male.—Sixth ventral segment very deeply and narrowly incised at apex, incisure nearly twice as deep as wide, narrowly rounded at the anterior angle, exterior angles rather broadly rounded, sides nearly straight; seventh broadly, roundly, and rather feebly emarginate at apex, lateral teeth very minute, straight.

Female.—Unknown.

Length (abdomen extended) 3.1 mm.

New York, 1.

The peculiar form of the prothorax will distinguish this species from *obsoletus*; other differences are found in the structure and punctation of the elytra and maxillary palpi, and also in the very peculiar opaque, ochreous-yellow color of the legs, which are much less densely pubescent than in the allied species. The sexual char-

eters are almost exactly the same as those of the above-mentioned species.

28. *A. dilutus* n. sp.—Form very slender. Pubescence very sparse, fine, dark plumbeous, scarcely visible. **Head** robust, less than twice as wide as long; interocular surface flat, two-thirds wider than the eye; sulcations very narrow, feeble and obscure; intermediate surface excessively feebly convex; punctures rather coarse and deep, nearly absent along the middle, more crowded in the sulcations; ocular lines meeting at one length in advance; antennae distinctly longer than the width of head, rather pale brownish-testaceous, club distinctly darker, rather prominent; third joint one-third longer than the fourth, eighth scarcely longer than wide, very robust, much shorter and thicker than the seventh, joints of club increasing uniformly and rather gradually in length; maxillary palpi long and slender, flavate, third joint slender, nearly as long as the first two together. **Prothorax** widest at the middle, where it is much narrower than long; sides thence equally and extremely feebly convergent anteriorly and posteriorly, nearly straight in both cases; anterior and posterior margins equal in length, the former rather strongly arcuate, the latter very slightly more feebly so; surface evenly and strongly convex, nearly cylindrical; punctures deeply impressed, very close, rather unevenly distributed, somewhat small; interspaces strongly convex, highly polished. **Elytra** at base as wide as the head; sides nearly parallel, distinctly longer than the width at base, nearly straight toward the humeri, very strongly arcuate toward the exterior apical angles; together broadly, somewhat angularly and strongly emarginate behind; suture about one-tenth longer than the pronotum; surface strongly convex, narrowly and feebly impressed along the suture, more strongly so toward the base, coarsely, deeply, and closely punctate, piceous in color; punctures somewhat irregular in outline, distant by less than their own widths; interspaces strongly convex, highly polished. **Abdominal** segments decreasing nearly uniformly and just perceptibly in width, first much narrower than the contiguous elytra, cylindrical, strongly constricted at base; transverse carinae broadly and strongly undulated; surface strongly, closely, and evenly punctate; interspaces convex, polished, not as wide as the punctures. **Legs** slender, pale brownish-testaceous throughout, tarsi short; first joint of the posterior nearly twice as long as the second.

Male.—Fifth ventral segment scarcely perceptibly, roundly, and narrowly emarginate in the middle at apex; sixth narrowly and deeply incised at tip, incisure more than twice as deep as wide, anterior angle very narrowly rounded, exterior angles narrowly rounded, sides slightly areuate; seventh segment broadly and feebly emarginate at the vertex, emargination nearly transverse at the bottom, lateral teeth short, stout, and straight.

Female.—Sixth segment very broadly and evenly rounded behind.

Length 3.0 mm.

Louisiana, 2.

The piceous color of the elytra and portions of the abdomen seen in the above-described species, and also to a certain extent in the

elytra of *artus*, is not; to the best of my knowledge, due entirely to immaturity, but is a feature of the mature insect.

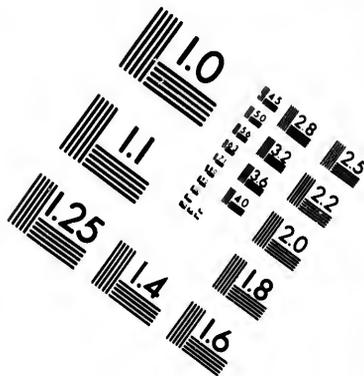
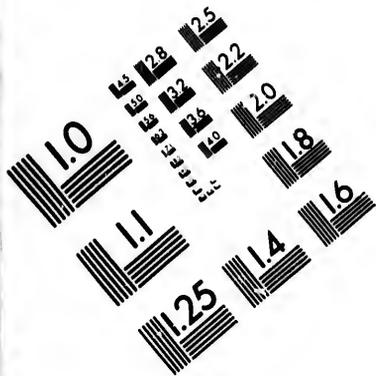
The distinguishing characters belonging to the three species, *dilutus*, *artus*, and *obsoletus*, are in the punctuation of the elytra, which is much the finest and closest in the last, and in the structure of the prothorax, which renders *artus* immediately recognizable. The sexual characters are strikingly uniform throughout the series.

29. **A. meridionalis** n. sp. (Schwarz MS.).—Form slender, sub-cylindrical. Pubescence rather sparse, short, evenly distributed, sub-recumbent, cinereous, rather inconspicuous. Entire body moderately shining. Head rather robust, scarcely twice as wide as long; interocular surface scarcely one-third wider than the eye, nearly flat; sulcations almost entirely obsolete; punctures rather sparse and irregularly distributed; ocular lines meeting at less than one length in advance; eyes very prominent; antennae short, scarcely longer than the width of head, piceous-brown, darker toward tip, slender, club strong; third joint one-fourth longer than the fourth, eighth more robust than the seventh, last joint of club as long as the eighth and ninth together; basal joint of antenna slightly paler; maxillary palpi very long and slender, almost as long as the antenna, clavate, tip of third joint slightly darker. Prothorax arcuately, evenly, and very gradually increasing in width to the middle, where it is one-eighth narrower than long and scarcely three-fourths as wide as the head; sides thence equally convergent posteriorly and feebly sinuate; anterior and posterior margins sub-equal in length and curvature; surface finely and somewhat confusedly punctate; punctures tending to coalesce transversely. Elytra at base equal in width to the head, or but very slightly narrower; sides parallel, slightly longer than the width at base, nearly straight toward the humeri, slightly areolate toward the apices; together roundly and rather strongly emarginate behind; suture slightly longer than the pronotum; surface rather strongly impressed on the suture toward the base; punctures large, close, nearly evenly distributed, distant by about one-half their widths. Abdominal segments decreasing uniformly and just perceptibly in width, first much narrower than the contiguous elytra, cylindrical; border obsolete; strongly constricted toward the base; surface coarsely, closely, and evenly punctate; punctures larger than those of the pronotum, deeply impressed, almost polygonally crowded; transverse carinae not cusped. Legs somewhat long, very slender, uniformly pale piceous-brown; first joint of the posterior tarsi not as long as the next two together; fourth joints strongly bilobed, lobes very narrow.

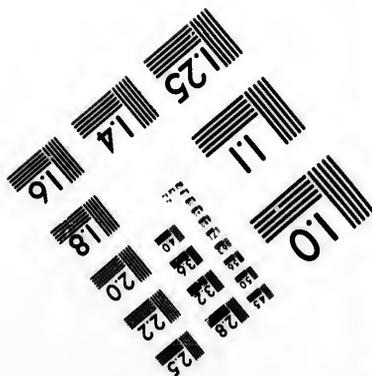
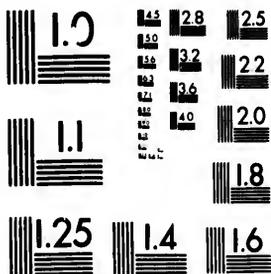
Male.—Posterior edge of the fifth ventral segment just visibly emarginate in its middle sixth at apex, emargination rounded and excessively feeble; sixth segment very deeply and somewhat narrowly incised at apex, incisure extending anteriorly through two-thirds of the segment, angle slightly rounded, sides nearly straight, exterior angles slightly rounded, slightly more than twice as deep as wide; seventh triangularly emarginate at tip.

Female.—Sixth segment strongly, broadly, and somewhat angularly rounded behind; seventh acuminate at tip.

Length 2.3–2.7 mm.



**IMAGE EVALUATION
TEST TARGET (MT-3)**



13 12.8
12 12.5
11 12.2
10 12.0

10
11

Florida (various localities), 13.

This is the smallest species of the genus, and is remarkable for the large eyes and strong punctuation of the dorsal surface of the abdomen.

30. **A. callosus** (Er.)—Form rather slender, sub-cylindrical. Pubescence rather sparse and inconspicuous, longer on the abdomen, where it is slightly denser, cinereous. Body very highly polished. Head small, twice as wide as long; interocular surface twice as wide as the eye, flat; sulcations broadly rounded, rather faint; supra-antennal tuberculations elongated, impunctate; surface between the sulcations highly polished and impunctate; punctures small, confusedly crowded in the sulcations; ocular lines meeting at about one length in advance; antennae distinctly longer than the width of head, slender, pale piceous-brown, distal ends of the joints darker, club moderate, much darker; third joint nearly one-half longer than the fourth, joints of club increasing in length and width; maxillary palpi very long and slender, flavate throughout. Prothorax arenately, evenly, and extremely gradually increasing in width for two-thirds the length posteriorly, where it is very slightly narrower than long; sides thence very feebly convergent and distinctly sinuate; anterior and posterior margins nearly equal in length, the former distinctly arenate, the latter nearly straight; surface rather finely and evenly punctate; punctures generally separated by less than their own widths, a fusiform space in the middle of the disk impunctate. Elytra at base slightly wider than the head; sides nearly parallel, very strongly arcuate near the apices, much less so near the humeri, very slightly longer than the width at base; together broadly and moderately emarginate behind; suture nearly one-fifth longer than the pronotum; surface very feebly impressed on the suture toward the base, finely and evenly punctate; punctures round, impressed, distant by nearly twice their own widths; interspaces convex, extremely highly polished. Abdominal segments decreasing nearly uniformly and somewhat rapidly in width, first distinctly narrower than the contiguous elytra, cylindrical; border obsolete; strongly constricted at base; surface finely, distantly, and irregularly punctulate; transverse carinae not cusped. Legs long and slender, pale piceo-flavate, tips of femora darker, tarsi rather short; first joint of posterior as long as the next two together; fourth joints strongly bilobed.

Male.—Posterior edge of the fifth ventral segment emarginate in its middle fourth, emargination rather feeble, more acutely rounded at bottom, nearly eight times as wide as deep; sixth segment very broadly incised at apex, incisure occupying the entire apex, nearly four times as wide as deep, sides straight.

Female.—Sixth segment evenly rounded behind.
Length 3.0–3.2 mm.

Florida, 19; Louisiana, 1; District of Columbia, 2.

Readily recognized by its very pale legs and distinct sexual characters. It is peculiarly southern in its habitus.

31. **A. varipes** n. sp.—Form as in *callosus*. Pubescence rather coarse, semi-erect, sparse, except on the abdomen where it increases in density toward the tip, cinereous, rather conspicuous; integuments highly polished. **Head** moderate or rather small, distinctly more than twice as wide as long; labrum prominent; interocular surface nearly three times as wide as the eye, very feebly convex; sulcations nearly obsolete; intermediate surface broad, very feebly convex, broadly impunctate in the middle; punctures elsewhere rather coarse, deep, close, and irregular; supra-antennal tuberculations elongated, impunctate; antennae much longer than the width of head, rather slender, piceo-testaceous, darker and opaque toward tip, translucent toward the base, club slender; third joint fully one-third longer than the fourth, fourth and fifth equal, sixth much longer than the seventh, the latter slightly more robust, eighth very slightly longer than wide, joints of club nearly cylindrical; maxillary palpi long, first two joints and base of the third very slender, third rapidly and very strongly enlarged toward tip, no longer than the second, all piceo-testaceous; the third joint is distinctly darker above than beneath; first joint one-half as long as the second. **Prothorax** widest slightly in advance of the middle, where it is distinctly narrower than long; sides thence very feebly convergent posteriorly and rather strongly sinuate throughout; anterior and posterior margins long, equal, and nearly transverse; surface coarsely, closely, and deeply punctate, having a rather large impunctate area in the middle of the disk. **Elytra** at base just perceptibly wider than the head; sides parallel, strongly arcuate, most strongly so at two-thirds the length from the humeri, much longer than the width at base; together rather narrowly and strongly emarginate behind; suture about one-third longer than the pronotum; surface feebly and rather broadly impressed on the suture at the base, otherwise nearly evenly convex; punctures coarse, nearly evenly distributed, very deep, distant by about their own widths, slightly variable in size; interspaces convex. **Abdominal** segments decreasing uniformly and rapidly in width, cylindrical, first very slightly narrower than the contiguous elytra, each constricted rather strongly at the base, border obsolete except on the first segment; evenly, strongly, and rather loosely punctulate; transverse carinae finely and irregularly undulated. **Legs** rather robust, basal half of femora, tibiae, and tarsi pale flavo-testaceous, distal half of femora rather abruptly much darker, castaneous, tarsi robust; first joint of the posterior four-fifths longer than the second, longer than and nearly twice as robust as the fifth; fourth joints bilobed, lobes rather short and robust.

Male.—Posterior edge of the fourth ventral segment very broadly and feebly emarginate in its middle two-fifths; fifth roundly and feebly emarginate in its middle third at apex, emargination about eight times as wide as deep, contiguous surface flattened throughout anteriorly; sixth segment narrow, apex broadly and deeply sinuate, sinus occupying nearly the entire apical width, evenly and rather broadly rounded at the bottom, nearly four times as wide as deep, apices very narrowly, though evenly rounded; lateral setae of seventh segment very long and coarse, testaceous.

Female.—Unknown.

Length 3.0 mm.

Detroit, Michigan, 1.

This fine species is distinguished with ease from *callosus* (Er.) by the palpi, the last joint of which is shorter, darker in color, and much more strongly and abruptly clavate in *varipes*. The coloration of the legs is also different.

32. **A. arcultus** (Er.)—Form rather slender, sub-cylindrical. Pubescence sparse, inconspicuous, rather long and coarse on the abdomen, cinereous. Body highly polished. Head small, robust, not twice as wide as long; interocular surface twice as wide as the eye, very feebly convex, rather acutely so in the middle; sulcations almost obsolete; supra-antennal tuberculations much elongated, impunctate; punctures coarse, deeply impressed, nearly evenly distributed, close; ocular lines meeting at one and one-half lengths in advance; antennae rather short, scarcely longer than the width of head, stout, pale piceo-testaceous throughout, club moderate, joints beyond the first slightly darker at their distal extremities; third joint one-half longer than the fourth; maxillary palpi very long, first two joints very slender, clavate, third infusate toward tip. Prothorax arcuately, evenly, and gradually increasing in width for two-thirds the length posteriorly, where it is narrower than long, sides thence moderately convergent and very strongly sinuate; anterior margin slightly shorter and more arcuate than the posterior; surface rather coarsely, very closely, deeply, and somewhat evenly punctate; a median line is generally impunctate. Elytra at base just perceptibly wider than the head; sides very feebly divergent posteriorly, as long as the width at base, very strongly and nearly evenly arcuate; together broadly, somewhat angularly and very strongly emarginate behind; suture about one-eighth longer than the pronotum; surface very convex, very feebly and narrowly impressed on the suture toward the base, coarsely and rather closely punctate; punctures very deeply impressed, round, rather irregularly distributed; interspaces very convex. Abdominal segments decreasing uniformly and very gradually in width, first much narrower than the contiguous elytra, cylindrical, rather strongly constricted at base; border obsolete; surface strongly, closely, and evenly punctate; punctures but slightly smaller than those of the pronotum; transverse carinae not cusped. Legs slender, piceous-brown, bases of the tibiae paler; first three joints of the posterior tarsi much elongated, uniformly and gradually decreasing in length; fourth joints moderately bilobed.

Male.—Posterior edge of the fifth ventral segment narrowly, roundly, and rather feebly emarginate in the middle; sixth narrow, sinuate at apex, sinus small, acutely rounded at the bottom, slightly more than twice as wide as deep.

Female.—Sixth segment broadly and evenly rounded behind.

Length 2.8-3.4 mm.

Michigan, 7; Nebraska, 1; Middle States, 7; District of Columbia, 5; Canada, 2; Cambridge, Massachusetts, 4; Texas, 2.

The under surface of the abdomen is more densely pubescent than the upper. The species resembles *callosus* (Er.), but is separated easily by the male sexual characters and color of the legs.

33. **A. punctatus** (Er.)—Form moderately robust. Pubescence very sparse, fine, short, evenly distributed, dark cinereous, scarcely visible; entire surface shining. **Head** somewhat small, nearly twice as wide as long; interocular surface flat, nearly three-fourths wider than the eye; sulcations almost entirely obsolete; intermediate elevation very feebly convex; punctures rather coarse, smaller and much closer in the depressed portions, a very narrow irregular median line is almost impunctate; ocular lines meeting at one length in advance; antennae distinctly longer than the width of head, rather slender, pale testaceous, darker at tip; basal joints twice as long as wide, club prominent; third joint two-fifths longer than the fourth, eighth shorter and much more robust than the seventh, joints of club much elongated, increasing rapidly in length, eleventh as long as the eighth and ninth together; maxillary palpi long, first and second joints slender, translucent, pale flavo-testaceous, the latter slightly darker toward tip, third nearly as long as the first two together, becoming gradually robust toward tip, slightly darker, very slender at base. **Prothorax** arcuately and very gradually increasing in width to the middle, where it is just perceptibly narrower than long; sides thence slightly convergent posteriorly and distinctly sinuate; anterior and posterior margins equal in length and curvature, feebly arcuate; surface evenly and strongly convex, rather finely, closely, deeply, and evenly punctate; interspaces convex, nearly equal in width to the punctures. **Elytra** at base about equal in width to the head; sides very feebly divergent posteriorly, very slightly longer than the width at base, rather strongly arcuate, especially toward the apices: together broadly, roundly, and moderately emarginate behind; suture nearly one-third longer than the pronotum; surface very convex, very feebly impressed on the suture at the base, evenly, deeply, and moderately coarsely punctate; punctures deeply impressed, distant by less than their own widths; interspaces very strongly convex. **Abdominal** segments decreasing uniformly and very gradually in width, cylindrical, first much narrower than the contiguous elytra; border obsolete, very narrow on the first; surface very deeply, coarsely, closely, and evenly punctate; interspaces scarcely one-half as wide as the punctures; transverse carinae not ensuped, strongly and finely undulated. **Legs** slender, rather pale brownish-testaceous, femora very slightly darker toward tips, tarsi rather robust; first joint of the posterior as long as the next two together; fourth joints narrowly and not very conspicuously bilobed.

Male.—Sixth ventral segment narrowly and deeply incised at the apex, incisure about twice as deep as wide, sides nearly straight, exterior angles feebly rounded; seventh segment broadly and evenly emarginate behind, lateral teeth distinct.

Female.—Sixth segment broadly and evenly rounded behind.
Length 3.0–3.3 mm.

Michigan and Lake Superior (various localities), 81; Pennsylvania, 5; Willets Point, Long Island, 2; New Jersey, 1; Cambridge, Massachusetts, 4; District of Columbia, 1.

Appears to be a very widely distributed species, especially in the interior of the continent. The forms in this portion of the genus are so extremely closely allied, that it is a matter of great difficulty to

decide upon the proper specific limits. The present species differs from *obsoletus* only in its more robust form, especially of the prothorax, and in its coarser punctuation. There seems to be considerable variation in the lustre, the males being more polished than the females.

34. *A. dissentiens* n. sp.—Form slender, sub-cylindrical. Pubescence moderate in length, slightly denser on the abdomen, rather sparse, somewhat inconspicuous; entire surface strongly shining. **Head** moderate or small, twice as wide as long; interocular surface twice as wide as the eye, very feebly convex, equally trilobed by the very feeble sulcations; intermediate surface moderately and nearly evenly convex, narrowly impunctate along the middle; punctures rather coarse, deeply impressed, rounded, close; ocular lines meeting at one length in advance; antennae very slightly longer than the width of head, rather robust, piceo-testaceous at base, becoming dark piceous-brown at tip of club, the latter compact and distinct; third joint slightly more than one-third longer than the fourth; maxillary palpi very long, slender, piceo-flavate, becoming slightly darker toward tip. **Prothorax** arcuately and evenly increasing in width to a point nearly two-thirds the length posteriorly, where it is slightly narrower than long; sides thence feebly convergent and slightly sinuate; anterior margin slightly shorter and distinctly more arcuate than the posterior; surface nearly evenly convex, very feebly and transversely impressed just behind the apex; punctures moderate in size, round, rather deeply impressed, very close, evenly distributed. **Elytra** at base as wide as the head; sides parallel, slightly longer than the width at base, rather strongly arcuate toward the apices; together broadly, somewhat angularly and moderately emarginate behind; suture one-fourth longer than the pronotum; surface rather strongly and narrowly impressed on the suture toward the base, also feebly impressed near each humeral angle; punctures coarse, nearly evenly distributed, round, deeply impressed, distant by slightly more than their own diameters. **Abdominal** segments decreasing uniformly and gradually in width, first slightly narrower than the contiguous elytra, cylindrical; border obsolete except on the first segment; surface coarsely, closely, deeply, and evenly punctate; transverse carinae not cusped, unevenly toothed. **Legs** short, rather slender, piceofuscous throughout; first three joints of the posterior tarsi decreasing uniformly and rather rapidly in length, first much shorter than the next two together; fifth as long as the first three together; fourth joints strongly bilobed.

Male.—Unknown.

Female.—Sixth ventral segment obtusely rounded behind, slightly, but rather acutely produced at the immediate vertex.

Length 2.7 mm.

Lake Superior, 1.

This species in general appearance resembles *politulus* from Vancouver Island, but is readily distinguished from it by the structure of the prothorax and posterior tarsi, also by that of the interocular surface of the head and the maxillary palpi.

35. **A. Hubbardi** n. sp.—Form rather robust. Pubescence very fine, short, rather sparse, dark plumbeous, scarcely visible; entire surface very highly polished. Head small, twice as wide as long; interocular surface twice as wide as the eye, flat; sulcations broadly rounded, narrow, and feeble; intermediate surface narrow, acutely convex, very narrowly impunctate along the middle; punctures rather coarse, deeply impressed, round, nearly evenly distributed, distant by nearly their own widths; interspaces convex; ocular lines meeting at nearly two lengths in advance; labrum small; antennae very slightly longer than the width of head, translucent, dark piceo-testaceous toward base, becoming black toward tip, club rather slender; third joint one-half longer than the fourth, joints of club increasing rapidly in length, sparingly pubescent; maxillary palpi long and slender, first joint rather dark piceo-testaceous, remainder dark piceous-brown, third joint clothed densely with cinereous, setiform pubescence. Prothorax widest at the middle, where it is scarcely narrower than long; sides thence very feebly convergent and straight anteriorly, slightly more convergent and just visibly sinuate posteriorly; anterior margin slightly longer than the posterior, more strongly arcuate, posterior rather strongly arcuate; surface nearly evenly convex; punctures rather small, evenly distributed, round, rather deeply impressed, distant generally by nearly their own widths. Elytra at base very slightly wider than the head; sides nearly parallel, much longer than the width at base, almost straight toward the humeral angles, strongly arcuate toward the apices; outer apical angles very acute and prominent; together broadly, roundly, and rather feebly emarginate behind; suture one-third longer than the pronotum; surface strongly convex, very feebly impressed on the suture toward the base; punctures round, very deeply impressed, nearly evenly distributed, distant by much less than their own widths; interspaces very convex. Sides of the abdomen slightly inwardly arcuate; first segment slightly narrower than the contiguous elytra, third and fourth equal in width, narrower than the first, all strongly constricted at base, cylindrical; transverse carinae not cusped; surface very strongly, closely, and evenly punctate; punctures nearly as large as those of the elytra; interspaces about one-half as wide as the punctures, very convex. Legs rather short and robust, very dark fuscous throughout in color; first joint of the posterior tarsi two-thirds as long as the fifth, much shorter than the second and third together; lobes of fourth joints very long and narrow.

Male.—Fifth ventral segment very narrowly emarginate in the middle of its posterior edge, emargination more acutely rounded at the bottom than at the sides, minute, about five times as wide as deep; sixth segment narrowly and very deeply incised at the apex, incisure nearly twice as deep as wide, sides straight, exterior angles very feebly rounded; seventh segment broadly, roundly, and strongly emarginate at tip, edges of emargination undulated at the bottom, lateral teeth strong, broad at base, straight.

Female.—Unknown.

Length 2.8 mm.

Batchewauung Bay, Lake Superior, 1.

The distinguishing features of this very distinct species lie in the very robust prothorax, proportionally long elytra, antennae black in

the distal half, and in the very strong punctuation of the under surface of the abdomen in the males.

Dedicated to Mr. H. G. Hubbard, to whose scientific collecting in this portion of the country, a great deal of the existing material is due.

36. **A. laetulus** n. sp.—Form rather slender, sub-cylindrical. Pubescence moderate in length, sub-recumbent, excessively sparse, plumbeo-cinereous. **Head** moderate, twice as wide as long; interocular surface flat, twice as wide as the eye; longitudinal elevation narrower than the lateral portions, very strongly and evenly convex, entirely impunctate and very highly polished; sulcations convergent anteriorly, strong; lateral lobes convex with a very few widely separated, small, deeply impressed punctures; interspaces very wide, convex, and highly polished; supra-antennal tuberculations very prominent, highly polished, and impunctate, separated from the eyes by short sulcations; ocular lines meeting at one length in advance; antennae longer than the width of head, very pale reddish-testaceous throughout, slender, club moderate; third joint one-third longer than the fourth, fourth and fifth sub-equal, sixth much longer and very slightly narrower than the seventh, eighth distinctly shorter than the seventh, equal to it in width, joints of club increasing in length, elongated, sub-cylindrical, very sparsely pubescent; maxillary palpi elongated, pale piceo-testaceous throughout. **Prothorax** widest at the middle, where it is four-fifths as wide as the head and slightly narrower than long; sides thence very feebly convergent posteriorly and feebly sinuate; anterior margin slightly shorter and more arcuate than the posterior; surface evenly convex, very sparsely and unequally punctate; punctures very deeply impressed, round; interspaces convex and extremely highly polished. **Elytra** at base very slightly wider than the head; sides very feebly divergent posteriorly, as long as the width at base, very strongly and evenly arcuate; together broadly and rather strongly emarginate behind; suture one-sixth longer than the pronotum; surface strongly convex, very feebly and narrowly impressed on the suture at the base; sparsely, coarsely, and somewhat evenly punctate; punctures round, widely isolated, very deeply impressed; interspaces very convex, wider than the punctures, highly polished. **Abdominal segments** cylindrical, decreasing uniformly and rapidly in width, first much narrower than the contiguous elytra; surface very highly polished, very finely and sparsely punctulate; border obsolete, except along the first segment; transverse carinae tridentate, teeth very broadly rounded, short and rudimentary. **Legs** slender, piceous-brown; first joint of the posterior tarsi distinctly longer than the next two together; fourth joints deeply bilobed, lobes slender.

Male.—Sixth ventral segment very narrow, truncate at tip, where it is bilobed, cusp small but distinct, acute.

Female.—Sixth segment very broadly and evenly rounded behind.
Length 3.0–3.1 mm.

California (S. Buenaventura), 6.

The under surface of the abdomen is very sparsely punctate, more densely so on the last two segments; extremely highly polished.

37. **A. leviceps** n. sp.—Form rather slender; abdomen large. Pubescence short, erect, fine, extremely sparse; surface polished. Head very small, twice as wide as long; interocular surface very feebly convex, nearly twice as wide as the eye; longitudinal elevation feeble, crest broadly impunctate, slightly wider than the lateral portions; sulcations very feeble; punctures coarse, sparse, deep, closer in the depressed portions; ocular lines very convergent, meeting at about one length in advance; antennae rather short and robust, piceous-brown, slightly darker toward the club, the latter not abrupt; third joint scarcely one-third longer than the fourth, eighth more robust than the seventh, slightly elongated; maxillary palpi long, slender, third joint strongly clubbed; piceous throughout, basal joint very slightly paler. Prothorax small, robust, widest slightly behind the middle, where it is as wide as long; sides thence very feebly convergent posteriorly and very slightly sinuate; anterior and posterior margins very long, subequal, strongly arcuate; surface coarsely, rather loosely, and very irregularly punctate; interspaces convex. Elytra at base distinctly wider than the head; sides feebly divergent posteriorly, distinctly longer than the width at base, strongly arcuate near the apices; together broadly and very strongly emarginate behind; suture one-third longer than the pronotum; surface very narrowly and feebly impressed along the suture; each elytron is also impressed just in advance of the middle point, and also very irregularly so just behind the middle and near the exterior margins; coarsely, very deeply punctate; punctures round, nearly evenly distributed, distant by slightly more than their own widths; interspaces convex. Abdominal segments decreasing uniformly and somewhat rapidly in width, first very slightly narrower than the contiguous elytra; surface cylindrical; border obsolete except on the first segment, where it is very narrow; punctures round, deeply impressed, rather sparse, evenly distributed; transverse carinae strongly and finely undulated throughout. Legs very slender, black above, tarsi and under surface of the femora and tibiae dark fuscous or piceous-brown; first joint of the posterior tarsi about as long as the next two together; fourth joints bilobed, lobes rather inconspicuous; claws very slender, strongly curvate, bulbous at the base.

Male.—Unknown.

Female.—Sixth ventral segment very obtusely and evenly rounded behind. Length 2.8 mm.

Vancouver Island, British Columbia, 1.

Very readily distinguished from *latulus*, which it somewhat resembles by its very small head, and somewhat finer and closer elytral punctuation.

38. **A. politulus** n. sp.—Form rather slender. Pubescence very sparse and inconspicuous; surface very highly polished throughout. Head small, about twice as wide as long; interocular surface scarcely twice as wide as the eye, nearly flat; sulcations obsolete; longitudinal elevation very narrow, impunctate and rather distinct; punctures very coarse, deeply impressed, nearly evenly distributed, close; interspaces convex; ocular lines meeting at one length in advance, nearly straight; antennae as long as the width of

head, dark piceous-brown, paler toward the base, somewhat slender, club moderate; third joint slightly more than one-half longer than the fourth; maxillary palpi well developed, dark piceous-brown, gradually becoming slightly paler toward the base, third joint robust toward tip. **Prothorax** evenly arcuately and very gradually increasing in width to the middle, where it is as wide as long; sides thence very feebly convergent posteriorly and rather strongly sinuate; anterior and posterior margins equal in length and curvature, very feebly areolate; surface densely, coarsely, deeply, closely, and nearly evenly punctate. **Elytra** at base slightly wider than the head; sides parallel, slightly longer than the width at base, rather strongly areolate, especially toward the apices; together broadly, roundly, and moderately emarginate behind; suture slightly more than one-third longer than the pronotum; surface narrowly and feebly impressed along the suture, especially toward the base, coarsely and evenly punctate; punctures very deeply impressed, round, distant by slightly less than their own diameters; interspaces strongly convex. **Abdominal** segments decreasing uniformly and extremely slowly in width, cylindrical, first slightly narrower than the contiguous elytra, each distinctly constricted at base; border obsolete except on the first segment; surface uniformly closely and coarsely punctate; intervals moderately convex; transverse carinae not cusped. **Legs** rather short, slender, piceous-black at the coxae, gradually becoming slightly paler toward the claws; first joint of the posterior tarsi as long as the next two together, second and third equal, as wide as long; fourth joints strongly bilobed.

Male.—Posterior edge of the fifth ventral segment feebly, narrowly, and roundly emarginate in the middle; sixth very strongly, deeply, and rather narrowly sinuate at tip, sinus rather acutely rounded at the bottom, more than one-half deeper than wide; seventh segment broadly, roundly, and distinctly emarginate at tip, lateral teeth well developed.

Female.—Sixth segment very broadly and obtusely rounded behind, with indications of an obtusely rounded production in the middle.

Length 3.0 mm.

Vancouver Island, British Columbia, 5.

39. **A. simiolus** n. sp.—Form robust. Pubescence very short, sparse, rather fine, dark piceo-plumbeous, scarcely visible; entire body very highly polished. **Head** small, robust, much less than twice as wide as long; interocular surface nearly flat, obscure; intermediate surface rather strongly, narrowly, and acutely convex; punctures rather large, evenly distributed, deeply impressed, round, separated by much less than their own widths; interspaces strongly convex; ocular lines meeting at nearly two lengths in advance; eyes large, thick; antennae short and robust, as long as the width of head, rather pale piceous-brown at base, becoming almost black at tip, club rather prominent; third joint one-third longer than the fourth, seventh three-fourths longer than the eighth, equal in thickness, eighth as wide as long, nearly sub-quadrangle, ninth and tenth nearly equal in length, eleventh much longer; maxillary palpi moderate in length, very slender, rather pale piceous-brown, becoming slightly paler toward the base. **Prothorax** robust, widest at the middle, where it is about as wide as long; sides thence equally

convergent anteriorly and posteriorly, slightly arcuate in the former, nearly straight in the latter direction; anterior and posterior margins equal in length, the latter very slightly the more arcuate; surface rather feebly and transversely impressed just behind the apex, otherwise evenly convex; punctures rather small, even, round, distant by nearly their own widths; interspaces moderately convex. **Elytra** at base distinctly wider than the head; sides extremely feebly divergent posteriorly, equal in length to the width at base, strongly arcuate; together broadly, roundly, and strongly emarginate behind; suture one-fourth longer than the pronotum; surface very convex, broadly and very feebly impressed along the suture; punctures rather coarse, even, round, deeply impressed, distant by their own widths; interspaces very convex. **Abdominal** segments decreasing at first rather rapidly, then more slowly in width, cylindrical, first very slightly narrower than the contiguous elytra; surface rather closely and evenly punctate; punctures as large as those of the pronotum, distant by slightly more than their own widths; interspaces convex; transverse carinae not cnsped, finely and strongly undulated posteriorly. **Legs** short and slender, femora piceous-black above, dark fuscous beneath, tibiae dark fuscous, distal extremity and tarsi very slightly paler, the latter slender; first joint of the posterior nearly as long as the next two together, shorter than the last; claws strongly curvate, slender, abruptly enlarged at the base.

Male.—Unknown.

Female.—Sixth ventral segment broadly rounded behind.

Length 2.9 mm.

White Fish Point, Lake Superior, 4.

This species can be distinguished from *Hubbardi* and *punctatus* by its relatively much more robust form and smaller head. In addition it differs from the first in its relatively shorter elytra, which are also much more strongly emarginate behind, and from the latter, in its dark legs and antennae, relatively shorter, more robust prothorax, and more convex elytra.

40. **A. pertinax** n. sp.—Fusiform, robust. Pubescence cinereous, short, semi-erect, coarse, uniformly distributed, rather conspicuous. **Head** very small, twice as wide as long; interocular surface twice as wide as the eye, very feebly convex; punctures uniformly distributed, coarse, round, deeply impressed, distant by less than their own widths; interspaces narrow, convex and polished; sulcations almost obsolete; ocular lines meeting at about one length in advance; antennae much longer than the width of head, testaceous, club very slightly darker; third joint scarcely one-fourth longer than the fourth; maxillary palpi very long, piceo-testaceous, first joint paler, third nearly as long as the first two together. **Prothorax** arcuately, evenly, and rapidly increasing in width to the middle, where it is about as wide as long and but slightly narrower than the head; sides thence feebly convergent posteriorly and sinuate; posterior angles prominent; anterior margin slightly shorter than the posterior, equally and distinctly arcuate; surface transversely and feebly impressed just behind the apex, otherwise evenly convex;

punctures small, rounded, rather close, occasionally coalescent on the flanks; interspaces feebly convex, highly polished. **Elytra** at base more than one-fourth wider than the head; sides parallel, feebly arcuate, more strongly so posteriorly, about equal in length to the width at base; together broadly, angularly and somewhat strongly emarginate behind; outer apical angles acute; suture about two-fifths longer than the pronotum; surface convex, broadly and distinctly impressed on the suture at the base; punctures small, round, evenly distributed, deeply impressed, distant by about their own widths; interspaces highly polished and moderately convex. **Abdominal** segments decreasing uniformly and rather rapidly in width, first slightly narrower than the contiguous elytra, cylindrical, slightly constricted at base; surface coarsely, very closely, and evenly punctulate, appearing as if perforated; lateral border obsolete; transverse carinae not cusped. **Legs** short and slender, piceous-black above, slightly paler fuscous beneath; first joint of the posterior tarsi slightly longer than the next two together. Under surface of the abdomen very closely, coarsely, and evenly punctate, appearing as if perforated.

Male.—Unknown.

Female.—Sixth ventral segment very obtusely rounded behind.

Length 3.2 mm.

Wyoming Territory, 1.

This species can be readily identified by its very peculiar robust fusiform shape, small head, and deep close punctuation on the under surface of the abdomen.

41. **A. lucidus** n. sp.—Form robust, convex. Pubescence excessively sparse, short, and inconspicuous; entire surface very highly polished. **Head** small, robust, scarcely twice as wide as long; interocular surface twice as wide as the eye, very feebly convex, equally divided by the sulcations, which are nearly obsolete; intermediate surface evenly and distinctly convex; punctures small, distant, except in the sulcations, where they are closely crowded; ocular lines meeting at nearly two lengths in advance; antennae short, scarcely longer than the width of head, slender, dark piceo-testaceous throughout, club small; third joint one-fourth longer than the fourth, fourth and fifth equal in length, joints of club slightly elongated, last two equal in thickness and more robust than the ninth; maxillary palpi long, dark piceous-brown, basal joint very slightly paler. **Prothorax** arcuately, evenly, and rather rapidly increasing in width to a point very slightly in advance of the middle, where it is about as wide as long; sides thence rather less rapidly convergent posteriorly and very feebly sinuate; anterior margin very slightly shorter and more arcuate than the posterior; surface feebly impressed just behind the anterior margin, otherwise evenly convex, finely punctate; punctures round, deeply impressed, rather close, somewhat unevenly distributed; a narrow fusiform space in the middle is impunctate. **Elytra** at base distinctly wider than the head; sides very feebly divergent posteriorly, strongly arcuate, more especially near the apices, about equal in length to the width at base; together broadly, roundly, and rather strongly emarginate behind;

suture nearly one-half longer than the pronotum; surface very convex, rather strongly impressed on the suture toward the base, each elytron obliquely and somewhat feebly impressed in front of the middle; punctures small, round, deeply impressed, distant by more than their own widths, nearly evenly distributed. **Abdominal** segments decreasing uniformly and rather rapidly in width, first slightly narrower than the contiguous elytra, nearly cylindrical, each segment rather strongly constricted at base; surface very coarsely, rather closely and evenly punctulate; punctures at base as large as those of the elytra; border obsolete; transverse carinae not cusped. **Legs** short and slender, femora and tibiae black, tarsi paler, piceous; first three joints of the posterior uniformly and very rapidly decreasing in length; fourth joints strongly bilobed, lobes narrow and very long.

Male.—Unknown.

Female.—Sixth ventral segment very obtusely and somewhat angularly rounded behind.

Length 2.9 mm.

Oak Grove, California, 2.

The above-described type has been lost; the second specimen is believed to represent the species, although it is more slender than the original type. The species cannot, however, be very readily mistaken for any other of that region.

Unrecognized Species.

The following is the only species which I have not succeeded in fully identifying. The original description of Boheman is transcribed without alteration, except in the portions between brackets:—

[*Areus*] *chalybeus* Boh.

Res. Engen. 1858, p. 33.

Caeruleus, nitidus, glaber; antennis palpis pedibusque dilute flavis, illis antrorsum leviter infuscatis; fronte plana, punctata, medio carinata; prothorace confertim punctato, postice leviter carinato; elytris prothorace nonnihil brevioribus, fortiter, crebre punctatis; abdomine immarginato, coracino, parce subtiliterque punctulato.—Long. $4\frac{1}{4}$, lat. $\frac{3}{4}$ millim.

Patria: California (St. Francisco).

Caput prothorace sesquialtius, obscure caeruleum, nitidum, crebre, sat distincte punctatum, antice subtiliter albedo-pubescent; fronte plana, medio linea longitudinali, laevi, modice elevata. Palpi dilute flavescentes. Antennae modice elongatae, tenues, dilute flavae, extrorsum leviter infuscae, articulo tertio quarto nonnihil longiore. Prothorax elytris fere duplo angustior, oblongus, latitudine duplo longior, apice rotundatus, basi truncatus,

lateribus medio parum rotundato-ampliatus; superne convexus, caeruleus, nitidus, crebre, sat profunde punctatur, dorso postico obsolete, longitudinaliter carinatus. Scutellum vix conspicuum. Elytra prothorace duplo latiora et illo vix breviora, lateribus recta, apice truncata, superne leviter convexa, caerulea, nitida, profunde, crebre punctata, humeris fere rectangularibus, elevatis. Abdomen elytris angustius, immarginatum, elongatum, cylindricum, nigro-caeruleum, nitidum, subtilissime, crebre punctulatum, segmentis quatuor primis constrictis. Pedes modice elongati, dilute flavi, coxis anticis concoloribus; tarsis longioribus, articulo quarto profunde bilobo.

As this description is full, clear, and succinct, and does not correspond with any form known from the Pacific Coast, even in its general character, I am strongly inclined to believe that the locality is erroneous, and consequently no number is attached, it being preferable to consider it at present as a doubtful species.

Total number of species described.....	172
Total number of specimens enumerated.....	1497
Number of species described from 5 or more specimens.....	70
Number described from 4 specimens.....	4
Number described from 3 specimens.....	7
Number described from 2 specimens.....	28
Number described from 1 specimen.....	58
Number not seen; description transcribed.....	5

LIST OF SPECIES DESCRIBED.

SYNONYMY AND BIBLIOGRAPHY.

NOTE.—The names denoting the localities are indicative of regions, and are self-explanatory.

DIANOUS.

1. *D. nitidulus* Lec.—Proc. Bost. Soc. Nat. Hist. 1874, xvi. p. 272.
Atlantic, Rocky Mts.
2. *D. chalybeus* Lec.—New Sp. Col. I. 1863, p. 49.....Lakes.
3. *D. zephyrus* n. sp.....Pacific.

STENUS.

A.

1. *S. punctiger* n. sp.—(Fauvel i. litt.).....Rocky Mts.
2. *S. b'punctatus* Er.—Käf. Mark. I. p. 530.....Atlantic, Lakes, Pacific.
comma Lec.—New Sp. Col. I. 1863, p. 50.
3. *S. colon* Say—Trans. Am. Phil. Soc. IV. p. 458...Atlantic, Gulf, Lakes.
4. *S. renifer* Lec.—New Sp. Col. I. 1863, p. 50.....Gulf, Arizona.
5. *S. semicolon*—l. c. p. 50.....Atlantic, Gulf, Lakes.
6. *S. gemmeus* n. sp.Atlantic.
7. *S. bilentigatus* n. sp.Atlantic.

B.

a.

8. *S. sculptilis* n. sp.....Pacific.
9. *S. laccophilus* n. sp.....Lakes.
10. *S. junco* (Fab.)—Syst. Bl. II. p. 602.....Atlantic, Gulf, Lakes, Pacific.
11. *S. verticosus* n. sp.....Pacific.
12. *S. tristis* n. sp.....Pacific.
13. *S. Austini* n. sp.....Atlantic, Lakes, Pacific.
14. *S. ranops* n. sp.Atlantic.
15. *S. delawarensis* n. sp.....Atlantic.
16. *S. sectator* n. sp.....Pacific.
17. *S. zunicus* n. sp.....Arizona.
18. *S. femoratus* Say—Trans. Am. Phil. Soc. IV. p. 459...Atlantic, Lakes.
19. *S. tacomæ* n. sp.....Pacific.

b.

20. *S. strangulatus* n. sp.—(Fauvel i. litt.).....Atlantic, Lakes.
21. *S. tenuis* n. sp.....Lakes.

22. *S. angustus* n. sp. Atlantic, Lakes.
 23. *S. difficilis* n. sp.—(Schwarz i. litt.) Atlantic, Lakes.
 24. *S. Pettiti* n. sp. Atlantic, Lakes.
 25. *S. scrupeus* n. sp. Lakes.
 26. *S. intrusus* n. sp. Atlantic, Lakes.
 27. *S. erythropus* Mels.—Proc. Ac. Phil. II, p. 40. Atlantic, Lakes.
 fuscipes Mels.—Cat. 1345.
 28. *S. rugifer* n. sp.—(Fauvel i. litt.) Rocky Mts.
 29. *S. anastomozans* n. sp.—(Croteh i. litt.) Atlantic.
 30. *S. shoshonis* n. sp. Pacific.
 31. *S. insularis* n. sp. Pacific.
 32. *S. vexatus* n. sp. Pacific.
 33. *S. Schwarzii* n. sp.—(Fauvel i. litt.) Atlantic.
 34. *S. pauper* n. sp. Atlantic.
 35. *S. subtilis* n. sp. Lakes.
 36. *S. indigenus* n. sp. Atlantic.
 37. *S. simplex* n. sp.—(Croteh i. litt.) Pacific.
 38. *S. vicinus* n. sp. Atlantic, Gulf.
 39. *S. ingratus* n. sp. Lakes.
 40. *S. neglectus* n. sp. Atlantic, Lakes.
 41. *S. scabiosus* n. sp. Lakes.
 42. *S. vespertinus* n. sp. Pacific.
 43. *S. convictor* n. sp. Pacific.
 44. *S. deductor* n. sp. Lakes.
 confusus—This work, pp. 38 and 63.
 45. *S. inornatus* n. sp.—(Schwarz i. litt.) Atlantic, Lakes.
 46. *S. placidus* n. sp. Lakes.
 47. *S. mendax* n. sp. Atlantic.
 48. *S. eriensis* n. sp. Lakes.
 49. *S. sphærops* n. sp. Atlantic.
 50. *S. militaris* n. sp. Lakes.
 51. *S. pluto* n. sp. Atlantic.
 52. *S. incultus* n. sp. Arizona.
 53. *S. pterobrachys* G. and H. Pacific.
 brevipennis Mäkl.—Bull. Mosc. 1852, II, p. 318.
 54. *S. corvus* n. sp.—(Schwarz i. litt.) Pacific.
 55. *S. maritimus* Mots.—Bull. Mosc. 1845, IV, p. 356. Pacific.
 56. *S. montanus* n. sp.—(Schwarz i. litt.) Atlantic.
 57. *S. alpicola* Fvl.—Faun. G.-Rh. III, p. 236. Rocky Mts., Pacific.
 58. *S. costalis* n. sp. Pacific.
 59. *S. alveolatus* n. sp. Pacific.
 60. *S. ellipticus* n. sp. Pacific.
 61. *S. adelops* n. sp. Pacific.
 62. *S. luctuosus* n. sp. Pacific.
 63. *S. pusio* n. sp.—(Schwarz i. litt.) Atlantic, Lakes.
 64. *S. nanulus* n. sp. Pacific.
 65. *S. atomarius* n. sp. Atlantic, Lakes.

γ.

66. *S. virginiae* n. sp. Atlantic.
 67. *S. texanus* n. sp. Gulf.
 68. *S. venustus* n. sp. Lakes?
 69. *S. occidentalis* n. sp.—(Crotch i. litt.) Pacific.
 70. *S. pacificus* n. sp.—(Crotch i. litt.) Pacific.
 71. *S. obstrusus* n. sp. Atlantic.
 72. *S. arizonæ* n. sp.—(Crotch i. litt.) Gulf, Arizona.
 73. *S. integer* n. sp. Atlantic.
 74. *S. floridanus* n. sp. Gulf.
 75. *S. colonus* Erichs.—Gen. p. 699.... Atlantic, Gulf, Lakes, Arizona, Pacific.
 76. *S. mamimops* n. sp. Atlantic, Lakes, Rocky Mts., Pacific.
 77. *S. gravidus* n. sp. Atlantic.
 78. *S. animatus* n. sp. Lakes.
 79. *S. tumicollis* n. sp. Lakes.
 80. *S. carinicollis* n. sp. Lakes.
 81. *S. insignis* n. sp. Pacific.

δ.

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82. *S. stygicus* Say—Trans. Am. Phil. Soc. IV. p. 458. Atlantic, Gulf, Lakes.
 83. *S. egenus* Erichs.—Gen. p. 698. Atlantic, Lakes.

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84. *S. dolosus* n. sp. Rocky Mts.
 85. *S. villosus* n. sp. Pacific.
 86. *S. sectilifer* n. sp. Atlantic.
 87. *S. milleporus* n. sp.—(Fauvel i. litt.) Atlantic, Gulf.
 88. *S. jejunus* n. sp. Pacific.
 89. *S. vinnulus* n. sp. Atlantic, Lakes.
 90. *S. congener* Mäkl.—Bull. Mosc. 1853, III. p. 192. Pacific.
 91. *S. canaliculatus* Gyll.—Ins. Svec. IV. p. 501. Atlantic, Lakes.
 92. *S. carolinæ* n. sp. Atlantic, Gulf.
 93. *S. ageus* n. sp. Atlantic.
 94. *S. pudicus* n. sp. Lakes.
 95. *S. minor* n. sp. Lakes.
 96. *S. rigidus* n. sp. Atlantic.
 97. *S. incertus* n. sp. Lakes, Rocky Mts.
 98. *S. parallelus* n. sp.—(Schwarz i. litt.) Atlantic.
 99. *S. noctivagus* n. sp. Atlantic.
 100. *S. luculentus* n. sp. Pacific.
 101. *S. juvenus* n. sp. Lakes.
 102. *S. pauperculus* n. sp. Lakes?
 103. *S. haplus* n. sp. Lakes.
 104. *S. enodis* n. sp. Rocky Mts.

105. *S. dives* n. sp. Pacific.
 106. *S. subgriseus* n. sp.—(Schwarz i. litt.)..... Pacific.
 107. *S. terricola* n. sp. Pacific.
 108. *S. mundulus* n. sp. Pacific.
 109. *S. tuberculatus* n. sp. Gulf.
 110. *S. indistinctus* n. sp.—(Schwarz i. litt.)..... Lakes.
 111. *S. brumalis* n. sp. Lakes.

C.

112. *S. graciosus* n. sp. Lakes.
 113. *S. monticola* n. sp. Atlantic.
 114. *S. curtus* n. sp. Lakes.
 115. *S. alacer* n. sp. Lakes, Gulf, Arizona, Rocky Mts.
 116. *S. hirsutus* n. sp. Lakes.
 117. *S. vestalis* n. sp. Pacific.
 118. *S. tahoensis* n. sp. Pacific.
 119. *S. nimbosus* n. sp.—(Fauvel i. litt.)..... Rocky Mts.
 120. *S. pugetensis* n. sp. Pacific.
 121. *S. vacuus* n. sp. Pacific.
 122. *S. amicus* n. sp. Rocky Mts.
 123. *S. exilis* n. sp. Pacific.
 124. *S. californicus* n. sp. Pacific.

Subgen. *Mutinus*.

125. *S. (M.) gilæ* n. sp. Arizona.
 126. *S. (M.) dispar* n. sp. Atlantic, Gulf, Rocky Mts.
chalceus Fvl. i. litt.

Unrecognized Species.

127. *S. adsector* Mäkl.—Bull. Mosc. 1852, II. p. 316..... Sitkha.
 128. *S. parallelipedus* Mots.—l. c. p. 317..... Sitkha.
 129. *S. cariniceps* Mäkl.—l. c. p. 317..... Sitkha.
 130. *S. immarginatus* Mäkl.—Bull. Mosc. 1853, III. p. 192..... Alaska.

AREUS.

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1. *A. retrusus* n. sp. Pacific.
 2. *A. fraternus* n. sp. Lakes, Rocky Mts.
 3. *A. umbratilis* n. sp. Pacific.
 4. *A. croceatus* n. sp.—(Fauvel i. litt.)..... Atlantic, Lakes.

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5. *A. advena* n. sp. Lakes.
 6. *A. europs* n. sp. Atlantic.

7. *A. megalops* n. sp.....Gulf.
 8. *A. lugens* n. sp.....Atlantic.
 9. *A. pilcipennis* n. sp.—(Schwarz i. litt.).....Pacific.
 10. *A. agnatus* n. sp.....Pacific.
 11. *A. Sayi* n. sp.....Pacific.
 12. *A. amabilis* n. sp.....Atlantic.
 13. *A. flavicornis* (Erichs.)—Gen. p. 733.....Atlantic, Lakes.
geniculatus Say—Trans. Am. Phil. Soc. IV. p. 458.
 14. *A. annularis* (Erichs.)—Gen. p. 735.....Atlantic, Lakes.
 15. *A. perforatus* n. sp.....Arizona.
 16. *A. nitecens* n. sp.....Gulf.
 17. *A. pollens* n. sp.....Pacific.
 18. *A. patens* n. sp.....Rocky Mts.
 19. *A. reconditus* n. sp.....Atlantic, Lakes.
 20. *A. propinquus* n. sp.....Atlantic.
 21. *A. canadensis* n. sp.....Lakes.
 22. *A. pinguis* n. sp.....Pacific.
 23. *A. utenis* n. sp.....Rocky Mts.
 24. *A. trajectus* n. sp.....Rocky Mts.
 25. *A. papagonis* n. sp.....Arizona.
 26. *A. obsoletus* n. sp.....Lakes.
 27. *A. artus* n. sp.....Atlantic.
 28. *A. dilutus* n. sp.....Gulf.
 29. *A. meridionalis* n. sp.—(Schwarz i. litt.).....Gulf.
 30. *A. callosus* (Erichs.)—Gen. p. 737.....Atlantic, Gulf.
 31. *A. varipes* n. sp.....Lakes.
 32. *A. arculus* (Erichs.)—Gen. p. 744.....Atlantic, Lakes.
 33. *A. punctatus* (Erichs.)—Gen. p. 744.....Atlantic, Lakes.
 34. *A. dissentiens* n. sp.....Lakes.
 35. *A. Hubbardi* n. sp.....Lakes.
 36. *A. lætulus* n. sp.....Pacific.
 37. *A. leviceps* n. sp.....Pacific.
 38. *A. politulus* n. sp.....Pacific.
 39. *A. simiclus* n. sp.....Lakes.
 40. *A. pertinax* n. sp.....Rocky Mts.
 41. *A. lucidus* n. sp.....Pacific.

Unrecognized Species.

- ? *A. chalybeus* Boh.—Res. Eugen. 1858, p. 33.....California.

In considering geographical distribution in the following table the only regions taken into account are those of the Lakes, the Atlantic, and the Pacific, not only because they are the only ones which are at all thoroughly explored, but on account of their continuity along the

same latitude they are likely to give the most useful result. We have, therefore, not counting the unrecognized species:—

Peculiar to the Atlantic Region.....	32
Peculiar to the Lake Region.....	33
Peculiar to the Pacific Region.....	50
Common to the Atlantic and Lake Regions only.....	24
Common to the Lake and Pacific Regions only.....	0
Common to the Atlantic, Lake, and Pacific Regions...	5

A few species peculiar to the Gulf, Rocky Mts., or Arizona faunas are omitted, and if included would not tend to render the table more significant. It should be mentioned, however, that there are three species peculiar to the Lakes and Rocky Mts. only. It is also to be observed that the Rocky Mts. constitute an almost insuperable barrier to the intercommunication of the various species, only five being common to the two slopes.

ERRATA.

- Page 16, 1st line after description, for "Penington" read "Pennington."
 " 29, 11th line from top, for "several" read "sexual."
 " 47, 1st line from top, for "Firsh" read "Fish."
 " 38 and p. 63, for "**confusus**" read "**deductor**," *confusus* is pre-occupied (Sahlb. En. Col. brach. Fenn. 1876, p. 58).

EXPLANATION OF THE PLATE.

- Fig. 1. Maxilla and maxillary palpus of *Stenus juno* (Fab.) ♂, taken near Cambridge, Massachusetts. The terminal spine of the third palpal joint is not represented, as it was entirely invisible in the original. The triangular area to the left is the exposed surface seen when in position to the left of the mentum; the inner lobe is strongly declivous just to the right of this triangle, in order to allow the lobe to extend under the labium.
- Fig. 2. Maxilla and maxillary palpus of *Areus annularis* (Erichs.) ♀. At the end of the outer lobe is to be seen a thin prolongation, along the apex of which the setae are irregularly and arcuately bristling. This prolongation, which forms the principal distinctive feature in the maxilla of the present species and that of *Stenus juno*, is of very peculiar formation, being an aggregation of parallel fibres compactly agglutinated, and resembling almost exactly a piece of fibrous gypsum, or of some varieties of asbestos. Among other differences, may be noted the very much longer setae along the outer edge of the outer lobe; they are also much less numerous.
- Fig. 3. Labial palpus of *Areus annularis* ♀. In the position in which it is figured, the spinous third joint is not seen, but the view is that which best enables observation of the concavity in the second joint.
- Fig. 4. Labium of *Stenus juno* ♀, Cambridge, Massachusetts. The terminal portions of the paraglossae are white, and of a granular gelatinous texture, the ligula being yellowish-testaceous; the line of demarcation between these portions is very distinct. The narrow medial carina of the ligula is to be noted. The labial palpi are attached to minute tuberculations at the anterior edge of the ligula.
- Fig. 5. Right mandible of *Areus annularis* ♀ viewed internally. In this position the full curvature of the mandible is not seen, as the point of sight is nearly in the plane of the curve.
- Fig. 6. Mentum of *Stenus juno* ♀ as viewed detached from the submentum; the narrow transverse area bordering it posteriorly is testaceous in color, and serves to form the joint at the submentum; it projects from below the exposed surface. The narrow carinal ridge is extremely strong, and the surface of the mentum is most strongly impressed near the lateral apical angles. The carina terminates anteriorly in a minute triangular extension of the anterior margin, which is very slightly reflexed. The apical angles project as very minute points in this species.

Fig. 7. Labrum of *Stenus juno* ♀ viewed on its under surface; it is most strongly impressed in the middle and near the posterior sinuosity; the structure is cellular, especially near the lateral posterior angles. The slight bilobation observed in the anterior edge is not to be seen distinctly when viewed in its natural position.

Fig. 8. Antenna of *S. sculptilis*.

Fig. 9. Antenna of *S. (Mutinus) dispar*.

Fig. 10. Tarsal claw of *Arens pollens*.

Fig. 11. Tarsal claw of *A. reconditus*.

Fig. 12. Tarsal claw of *A. propinquus*.

Fig. 13. Tarsal claw of *A. canadensis*.

Fig. 14. Tarsal claw of *A. pinguis*.

Fig. 15. Tarsal claw of *A. utensis*.

Fig. 16. Tarsal claw of *A. trajectus*.

Fig. 17. Tarsal claw of *A. papagonis*.

Fig. 18. Tarsal claw of *A. tarsalis* Ljungh, taken from a European specimen.

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NORTH AMERICAN STENINI.

t is most
inuosity ;
posterior
edge is
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cimen.

