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JOURNAL  
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ART. I.—*An attempt to classify the Longicorn Coleoptera of the part of America North of Mexico.* By JOHN L. LECONTE, M. D.

(Concluded from page 340.)

Subdivision II. CERAMBYCIDÆ.

The same objections that have been already made to Serville's arrangement of the *Lepturidæ*, may be urged with still greater force against his classification of this subdivision, since the number of generic forms being very much larger, the difficulties experienced in an artificial classification depending of superficial characters become much increased. His primary subdivisions being formed on differences in the outline of the thorax, the student is frequently left in doubt where a genus should be placed; and, indeed, if his system were rigidly followed, many species would be separated from their congeners, and placed in a very different position from that which nature indicated. Examples may be observed in the genera *Elaphidion* and *Arhopalus*, as defined below. The affinities of this subdivision have been sufficiently pointed out in the introduction; it is the central group of the *Longicornia* connected with all the others. Its affinities being of this radiating nature, we would naturally expect to find it subdivided into a series of groups, each verging more or less in the direction of one of these radiating lines. In a group thus constituted, the dichotomous principle *invariably* adopted by the French naturalists fails completely, and we are

obliged to seek for an *assemblage* of characters to define our groups, instead of basing them on isolated peculiarities. This method I have endeavoured to pursue, and as far as the limited materials existing in American collections could give me aid, the genera of this subdivision may be divided into the following groups.

		A. Palpi maxillares maxillis longiores.																	
		a. Mandibulæ integræ, mesosternum gibbum.																	
Elytra	{	lateribus sinuatis, . . . . .		I.															
		lateribus rectis	{	sterna latissima, arcte conjuncta, . . . . .	II.														
				sterna mediocria, . . . . .	III.														
		b. Mandibulæ bifidæ. . . . .		IV.															
		c. Mandibulæ integræ, mesosternum planum, . . . . .		X.															
Caput	{	haud rostratum; frons	{	parum deflexa; antennæ	{	inter oculos sitæ; femora	{	clavata; palpi	{	dilatati; acetabula antica	{	haud clavata, acetabula antica rotundata, hientia, . . . . .	V.						
												haud dilatati, acetabula, vel rotundata, vel angustata, . . . . .	VI.						
												rotundata	postice hientia, . . . . .	VII.					
													integra, . . . . .	IX.					
														{		extus angulata, . . . . .			
														{		Acetabula antica angulata, . . . . .		XI.	
														{		ante oculos sitæ, { Acetabula antica rotundata (mandibula scalprariæ,) . . . . .		XII.	
														{		quadrata, perpendicularis, . . . . .		VIII.	
														{		rostratum, . . . . .		XIII.	
														B. Palpi maxillares brevissimi, . . . . .		XIV.			

I now proceed to define these groups, giving at the same time a list of the genera which each contains. In many cases, owing to the indefinite nature of Serville's tables, there is some doubt where a genus should be placed, in such cases I have added a note of interrogation, to signify that I had no opportunity of examining the genus.

<p style="text-align: center;">I.</p> <p>Sterna gibba.</p> <p>Palpi articulo ultimo parum dilatato.</p> <p>Elytra lateribus sinuata.</p> <p>Antennæ breves.</p> <p>Mandibulæ acutæ.</p> <p>Cryptopleura, n. g., from Mexico.</p>		<p style="text-align: center;">II.</p> <p>Sterna latissima arcte conjuncta.</p> <p>Palpi parum dilatati.</p> <p>Elytra lateribus rectis.</p> <p>Mandibulæ integræ.</p> <p>Megaderus, Lissonotus.</p>
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## III.

*Sterna gibua*, haud latissima.

Palpi paulo dilatati.

Elytra lateribus rectis.

Mandibulæ integræ.

*Distichocerus*, *Rachidion*, *Ancylosternus*, *Trachyderes*, *Charinotus*, *Phædinus*, *Ctenodes*, *Eurycephalus*, *Cryptobias*, *Lophonocerus*, *Stenaspis*, *Sphenothecus*, *Desmoderus*, *Dorcacerus*, *Tsemisternus*? *Ceragenia*? *Nosophlæus*?

I have seen but few of these genera. They all belong to the *Trachyderidæ*, and might probably be divided into two or more distinct groups.

## IV.

Mandibulæ bifidæ.

Palpi parum dilatati.

Antennæ 12-articulatæ (an semper?)

*Sterna* vel plana, vel gibba.

*Tylosis*, (n. g.) *Deltaspis*, *Dendrobias*, *Xylocaris*, *Oxymerus*, *Orthostoma*? *Prodontia*? *Ceragenia*?

I have seen none of these except *Tylosis* and *Deltaspis*.

## V.

*Mesosternum planum*.

Palpi plus minusve dilatati.

Mandibulæ acutæ.

Femora non clavata.

Acetabula antica rotundata hientia.

Frons parum deflexa.

*Anoplistes*, *Criodion*, *Chrysoprasis*, *Eburia*, *Cerasphorus*, *Dorcasoma*, *Hammaticherus*, *Plocæderus*, *Achryson*, *Polyschizus*, *Malacopterus*? *Eurymerus*? *Mallocera*, *Purpuricenus*, *Phænicocerus*, *Elaphidion*, *Arhopalus*, *Eriphus*, *Tragidion*, *Stizocera*, *Chlorida*, *Crioprosopus*, *Tragocerus*? *Amphidesmus*? *Stromatium*? *Xestia*.

## VI.

*Mesosternum planum*.

Palpi minime dilatati.

Mandibulæ acutæ.

Femora valde clavata.

Acetabula antica vel rotundata, vel angulata.

*Cosmisoma*, *Euporus*, *Cordylomera*, *Trachelia*, *Promeces*, *Stenopterus*, *Heliomanes*, *Obrium*, *Ancyllocera*, *Sclerocerus*, *Rhopalophorus*, *Cycnoderus*, *Leptocera*, *Compsocerus*, *Listroptera*? *Tennopsis*?

## VII.

*Mesosternum planum*.

Palpi dilatati.

Mandibulæ acutæ.

Femora valde clavata.

Acetabula antica rotundata, hientia.

Frons parum deflexa.

*Tylonotus*, *Smodicum*, *Ibidion*, *Gracilia*, *Trichophorus*, *Ataxia*, *Coremia*, *Xystrocera*, *Cartallum*, *Stenygra*, *Ozodes*? *Tmesisternus*? *Piezocera*?

## VIII.

*Mesosternum planum*.

Palpi dilatati.

Mandibulæ acutæ.

Femora valde clavata.

Acetabula antica rotundata, hientia.

Frons quadrata, perpendicularis.

*Clostrocera*, *Clytus*, *Cyphophorus*, (n. g.) *Eudercus*, (n. g.)

## IX.

*Mesosternum planum*.

Palpi elongati, valde dilatati.

Mandibulæ acutæ.

Acetabula antica rotundata, integra.

Frons brevis vix deflexa.

Tibiæ anticæ intus oblique sulcatæ.

*Michthisoma*, (n. g.)

## X.

Mesosternum planum.  
 Palpi dilatati.  
 Mandibulæ acutæ.  
 Antennæ inter oculos sitæ.  
 Acetabula antica extus angulata.  
 Femora valde clavata.

Pteroplatus, Callidium, Hylotrupes, Phymatodes,  
 Physocnemum, Saphanus, Tetropium, Mallosoma,  
 Deilus? Stromatium? Piezocera? Amphidesmus?  
 Listroptera?

## XI.

Mesosternum planum.  
 Mandibulæ integræ subacutæ.  
 Antennæ ante oculos insertæ.  
 Coxæ anticæ modice transversæ.

Cricocephalus, Aseum.

## XII.

Mesosternum planum.  
 Palpi, elongati, dilatati.  
 Mandibulæ scalprariæ.  
 Antennæ ante oculos sitæ.  
 Acetabula antica rotundata, hientia.  
 Distenia, Ozodes??

## XIII.

Mesosternum planum.  
 Caput rostratum.  
 Palpi maxillares mediocres.  
 Femora valde clavata.  
 Odontocera, Rhinotragus, Oregostoma.

## XIV.

Mesosternum planum (an semper?)  
 Caput haud rostratum.  
 Palpi maxillares brevissimi.  
 Pachyteria, Colobus, Callichroma, Ionhodes,  
 Aromia, Rosalia, Disaulax, Litopus.

## GROUP 3.

In this group the body is elongate and somewhat cuneiform as in the *Purpuricenus* group, from which they are distinguished only by the mesosternum being deflexed anteriorly. The thorax is either armed or not, but is not wider than the elytra, which are rounded at the apex. The antennæ are setaceous and very long in the males, and their last joint is divided or very nearly so; the palpi are but little dilated, the maxillary being longer than the labial; the femora are not clavate, and the joints of the abdomen gradually diminish in length. The posterior tarsi are not elongated.

## SMILECERAS.

Antennæ pubescentes. ♂. Sub 12-articulatæ, articulis 4—7 gradatim longioribus, 5—11 extus acute marginatis.

Thorax lateribus dilatatus bituberculatus, tuberculo posteriore subacuto.

Scutellum subelongatum acutum.

Mandibulæ obtusæ.

The joints of the antennæ from the fifth to the end, have their anterior margin compressed like a knife edge. The facies is very like *Hammaticherus*, to which I should have referred it, but for the structure of the mesosternum. The maxillary palpi too are longer than the labial, and the joints of the antennæ from the sixth are not suddenly longer and thinner.

1. *S. SOLITARIUM*.—Atrum, supra glabrum, subtus parce cinereo-pubescentibus, thorace latitudine fere duplo breviora parce punctata, ante basin callo lævi, alteroque utrinque versus latera modice elevatis, basi sinuato, elytris subtilissime strigosis, parce subtiliter punctatis, pedibus cyanescentibus. Long. 1.43.

*Cerambyx solitarius*, Say. J. A. N. S., 3, 410.

*Callichroma solitarium*, Hd. 1. c. 32.

A single specimen was found in New Mexico by Dr. Wislizenus and presented to me. Say's specimen was found on the Arkansas near the mountains.

#### GROUP 4.

This group forms the passage from those with gibbous sterna to the succeeding groups. The body is elongate, sometimes subdepressed, resembling *Elaphidion*, sometimes *Purpuricen*, but from both of these sections the present is distinguished by the bifid mandibles. The antennæ (as far as known to me) have twelve joints in both sexes, in *Deltaspis* the last joint is indistinct, the palpi are short and but little dilated, the maxillary but little longer than the labial; the femora are not clavate: the posterior tarsi scarcely elongated, the joints of the abdomen are nearly equal.

#### TYLOSIS.

Mandibulæ non elongatæ.

Thorax rotunde depressiusculus, dorso callosus.

Mesosternum subplanum antice non subito declive.

Elytra apice rotundato, truncata non armata.

Corpus nitidiusculum, parce brevissime pubescens.

Differs from a Mexican genus which I consider a *Ceragenia*, in having the thorax unarmed and the elytra not armed with a spine towards the tip; the mesosternum is not at all gibbous. The 12th joint of the antennæ is very distinct, and in the ♂ these organs are much longer than the body.

1. *T. MACULATUS*.—Niger, thorace elytrisq[ue] coccineis, illo latitudine fere duplo breviora, punctata, callis, 5 lævibus nigris modice elevatis, elytris confertim punctatis, macula humerali alterisque utrinque tribus nigris. Long. .75.

New Mexico, Dr. Wislizenus; the spots on the elytra are placed near the suture, the second is a little before the middle, and is somewhat transverse, the third elliptical near the tip; the humeral spot is sometimes obsolete.\*

\* A small Mexican species of this genus, which seems nondescript, may be thus characterized:

*T. OCVLATUS*.—Niger, thorace elytrisq[ue] coccineis, illo latitudine vix breviora, ante basin anguste constricto, confertim punctato, callo utrinque ante medium lævi nigro: elytris confertim punctatis immaculatis, scutello nigro. Long. .45.

Puerto Nacional. Mr. Pease.

## GROUP 5.

The body in this group is elongate, sometimes slightly cuneiform, sometimes subdepressed. The thorax is most commonly convex, either armed or unarmed, and but little dilated on the sides. The palpi are short and more or less dilated, the maxillary sometimes being a little longer than the labial. The mandibles are entire. The legs are thin, the posterior pair frequently elongated. The mesosternum is not at all gibbous. This group differs from the two following by its simple femora. It leads directly to the *Clyti*.

TRAGIDION, *Serv.*

Mandibulæ obtusæ breves.

Antennæ filiformes 11-articulatæ (♂ sub 12-articulatæ) articulis 5—11 extus margine acuto.

Thorax convexus, parum rotundatus, spicula parva armatis.

Palpi breves, labiales brevissimi.

Elytra apice haud armata : corpus valde pubescens.

I know not what induced Serville to associate this genus with *Clytus*; in every respect it strongly resembles *Purpuricenus*, and can be distinguished only by its shorter palpi and thick pubescence, which covers the body both above and below; this pubescence is more dense in the female.

1. *T. coquus*.—Nigrum confertissime punctatum, pubescens, elytris subsulcatis, macula utrinque magna aurantiaca ante medium : thorace minus distincte armato. Long. .93.

*Cerambyx coquus*, Lin : Fabr. 2, 300.

*C. lynceus*, Fabr. El. 2, 344, Ol. 67, 14, 97.

*C. Melsheimeri*, Germ. Ins. Nov., 502.

Southern States, rare.

2. *T. fulvipenne*.—Nigrum confertissime punctatum, pubescens, elytris subsulcatis, aurantiacis, margine basali nigro; thorace distinctius spinoso. Long. .8.

*Callidium fulvipenne*, Say. J. A. N. S., 3, 414.

Were it not for the stronger armature of the thorax, this might be considered a variety of *T. coquus*. It is found in Missouri and Louisiana. I have it from Dr. Engleman and Mr. Wapler.

PURPURICENUS, *Serv.*

Mandibulæ acutæ.

Antennæ maris sub 12-articulatæ, articulis 5—11 extus margine acuto.

Thorax convexus modice rotundatus spina breve armatus.

Palpi breves, labialibus brevioribus.

Elytra apice sub-truncata; corpus vix pubescens.



1. *P. HUMERALIS*.—Niger, thorace confertim cribroso, inæquali, elytris basi cribrosis, macula humerali magna sanguinea, sutura subspinosa. Long. .62.

Dej. Cat : Hald. 31.

*Cerambyx humeralis*, Fabr. El. 2, 274 : Ol. 67, 141.

New York, Ohio, Missouri.

2. *P. AXILLARIS*.—Niger, thorace confertim cribroso, vix inæquali, elytris basi parce grosse punctatis fere ad medium rufo-flavis, scutello nigro. Long. .45—.55.

Hald. 31.

New York, Mr. Wilcox. Pennsylvania, Dr. Melsheimer. The points at the base of the elytra are much less dilated than in the preceding. The suture is not at all armed.

### EBURIA, *Serv.*

Antennæ 11-articulatæ, pubescentes, articulis extus haud compressis, vel vix compressis.

Thorax convexus parum rotundatus, armatus (dorso sæpissime bicallosus.)

Palpi æquales prominuli.

Elytra apice bispinosa (sæpissime callis eburneis ornato.)

Tarsi postici articulo 1<sup>mo</sup> non longiore.

1. *E. 4-GEMINATA*.—Testacea, elytris pallidioribus, parce pubescens, thorace latitudine haud longiore confertim cribroso, elytris confertim punctatis, callis eburneis utrinque duobus geminatis, parte posterioris interna non brevior. Long. .85.

Hald. 32.

*Stenocorus 4-geminatus*, Say. J. A. N. S., 5, 275.

Southern and Western States ; not rare.

2. *E. DISTINCTA*.—Longior, fusco testacea, dense breviter pubescens, thorace latitudine longiore, confertim cribroso, elytris punctatis, callis eburneis utrinque duobus geminatis, parte posterioris interna sesqui brevior. Long. .85.

Hald. Pr. A. N. S., 3, 150.

Maryland, Georgia, and Mississippi, very rare.

### CERASPHORUS, *Serv.*

#### *Chion*, Nm.

Antennæ 11-articulatæ, articulis 5—11 extus profunde sulcatis, bicarinatisque.

Thorax subconvexus, modice rotundatus, armatus.

Palpi æquales prominuli.

Elytra apice bispinosa.

Tarsi postici articulo 1<sup>mo</sup> paulo elongato.

I am by no means sure that this genus is in reality distinct from *Eburia*; in a large Mexican species of the last genus, with small elytral spot, the joints of the antennæ seem inclined to become compressed, and it is quite possible that in other species they may even become sulcate as in *Cerasphorus*.

1. *C. RUSTICUS*.—Testaceus, vel fuscus, cinereo-pubescent, thorace confertim cribroso, ante basin vix calloso, scutello flavo-pubescente, elytris confertim punctatis. Long. .6—1.0.

*Stenocorus rusticus*, Fabr. El. 2, 311 : Ol. 69, 2, 16.

*Cerasphorus 4-spinosus*, Dej. Cat. Hald. 32.

*Chion rusticum*, Newman Entom.

Var. *Stenocorus garganicus*, Fabr. El. 2, 306.

*Cerambyx garganicus*, Ol. 67, 13, 105.

*Cerasphorus garganicus*, Dej. Cat.

Varies with two obsolete costæ on each of the elytra: also with an oblique pale spot before the middle. Maryland, Georgia, and Missouri.

#### ELAPHIDION, *Serv.*

Mandibulæ acutæ.

Antennæ 11-articulatæ articulis apice sæpissime spinosæ.

Thorax rotundatus vel cylindricus, dorso parum convexus, haud armatus.

Elytra apice truncata, sæpissime bispinosa.

Palpi breviusculi, subæquales, plus minusve dilatati.

Tarsi postici articulo 1<sup>mo</sup> haud elongato.

#### §. Thorax rotundatus dorso haud callosus.

1. *E. PULVERULENTUM*.—Fusco-piceum, pube brevi depressa dense vestitum thorace scabroso-punctato, medio vix elevato; elytris subtiliter punctatis, antennarum articulis utrinque spina apicali brevi armatis. Long. 1.3.

Hald. l. c.

Missouri, rare. This species is not *Callidium pulverulentum*, Ol. 70, 8, 101.

2. *E. SIMPLICICOLLE*.—Fuscum, pube brevi depressa vestitum; thorace confertissime subtiliter punctato, postice subcanaliculato; elytris minus subtiliter punctatis; antennarum articulis 3—6 spina brevissima externa armatis. Long. 1.0.

Hald. Pr. A. N. S., 3, 151.

One specimen, Georgia.

3. *E. NOTATUM*.—Nigrum, nitidum, pube rara longiore albida cinerascens; thorace læte rufo punctis paucis adperso, disco sæpius nigricante; elytris grossius punctatis; antennis articulis 3—7 spina acuta apicali armatis: femoribus anticis subclavatis. Long. .45.

*E. deflendum*, Nm.

*Call. notatum*, Oliv. 70, 89.

*Stenosphenus notatus*, Hald. 39.

I cannot discover on what character this species has been separated as a distinct genus by Dejean and Haldeman. Pennsylvania and Alabama.

## §. Thorax rotundatus dorso callosus.

## a. Femora posteriora apice mutica.

4. *E. RUFULUM*.—Piceo rufum irregulariter fulvo pubescens: thorace latitudine plus duplo brevior, cribroso, callo subbasali alteroque utrinque ante medium parvo: elytris vage punctatis, apice bispinosis; antennis spinis acutis minus elongatis. Long. 1.2.

Hald. l. c.

Georgia, rare. Very similar to the next species, but the thorax is much shorter.

5. *E. MARYLANDICUM*.—Fuscum irregulariter fulvo-pubescens: thorace latitudine sesqui-brevior, cribroso, callo subbasali alteroque minuto utrinque ante medium: elytris vage grossius punctatis apice bispinosis: antennarum spinis acutis minus elongatis. Long. 1.1.

Not rare: the male has the thorax finely and very densely punctured, and not cribrate: the antennæ longer than the body.

6. *E. INCERTUM*.—Fuscum irregulariter fulvo-pubescens: thorace latitudine vix brevior, cribroso, linea dorsali calloque rotundo utrinque ante medium lævibus: elytris grossius punctatis, apice acute bispinosis: antennarum spinis acutis minus elongatis. Long. .7.

Nm. Ent. Mag.

*E. aspersum*, Hald. l. c.

Looks like a small specimen of the preceding, but is easily distinguished by the glabrous dorsal line. New York, one specimen.

7. *E. VICINUM*.—Fuscum, irregulariter fulvo-pubescens: thorace latitudine haud brevior subtilius cribroso, linea dorsali, alteraque posteriore, calloque majore rotundo ante medium lævibus: elytris grossius punctatis apice acute bispinosis: antennarum spinis brevioribus. Long. .85.

Hald. l. c.

Illinois. Wilcox.

8. *E. NEGLECTUM*.—Fuscum, minus dense fulvo-pubescens: thorace cribroso, latitudine sesqui-brevior, linea dorsali altera utrinque basali, calloque parvo ante medium lævibus: elytris grossius punctatis, apice acute brevius bispinosis: antennis breviusculis, spinis parvis acutis. Long. .5.

The male probably has elongate antennæ. A small robust species, similar in its markings to the preceding, but with a wider thorax and less irregular pubescence; the elytra are nearly smooth towards the apex.

## b. Femora posteriora apice spina acuta interna armata.

9. *E. IRRORATUM*.—Piceum nitidum, supra glabrum, maculis nonnullis albo-pubescentibus; thorace latitudine brevior, grossius cribroso, linea lata dorsali callisque utrinque 2 lævibus; elytris antice grossius punctatis, apice longius bispinosis; spinis antennarum longioribus. Long. .75.

Fabr.

I have seen one specimen caught at New York. The species is common in Cuba, and was probably imported.

10. *E. MUCRONATUM*.—Fuscum dense irregulariter fulvo-pubescens; thorace latitudine vix brevior, cribroso, linea dorsali, callisque utrinque 2 lævibus, elytris grosse punctatis, apice longius bispinosis; antennarum spinis longioribus, spina 3<sup>ia</sup> 4<sup>ta</sup> vix brevior. Long. .6—·75.

Say l. c.

*E. nebulosum*, Dej. Cat.

Massachusetts, Missouri, Alabama. Common.

### §3. Thorax cylindricus.

11. *E. VILLOSUM*.—Longiusculum, fuscum, inequaliter fulvo-pubescens, thorace latitudine vix longiore confertissime cribroso, elytris densius punctatis, apice acute bispinosis antennarum spinis brevis simis. Long. .7.

Fabr.

Middle and Southern States, common. The male has the thorax very finely and densely punctured, with a small glabrous dorsal spot. This species is less elongated than the two next.

12. *E. OBLITUM*.—Elongatum fuscum inæqualiter fulvo-pubescens, thorace latitudine paulo longiore, lateribus subangulato, confertim cribroso, callo parvo dorsali lævi, elytris grosse sat dense punctatis, obsolete bicostatis, apice acute bispinosis, antennarum articulis 3—4 spinis tenuibus prominulis armatis. Long. .55.

Differs from the two following, in having a slight prominence on the middle of the thorax at the side, resembling a very obsolete spine, the spines of the antennæ are more prominent than in the last species: the pubescence of the thorax forms a somewhat interrupted vitta. Found in Pennsylvania.

13. *E. RUSTICUM*.—Elongatum, fuscum, inæqualiter cinereo-pubescens, thorace latitudine longiore confertim cribroso, callo dorsali alteroque utrinque dorsali obsolete lævibus, elytris capite cum thorace plus duplo longioribus, grossius spinosis, apice bispinosis, antennarum spinis prominulis. Long. .55.

The male has the thorax very finely and densely punctured, with the same facets as the female.

14. *E. PUMILUM*.—Elongatum inæqualiter longius cinereo villosum, thorace latitudine haud brevior lateribus modice rotundatis, cribroso, callo dorsali alterisque utrinque duobus, minus distinctis lævibus; elytris grosse punctatis apice truncatis, antennarum articulis 3—4 spinis prominulis, tenuibus. Long. .35.

Nm. Ent. Mag.

One specimen, Georgia. This little species seems by the form of the thorax to connect the present with the preceding division. It differs from all the above described species in having the elytra unarmed.

15. *E. CINERASCENS*.—Elongatum testaceum; æqualiter parcius pubescens; thorace latitudine longiore confertim grosse punctato: elytris grosse punctatis apice truncatis: antennis muticis tenuibus. Long. .35.

*Anoplum unicolor*, Hald. l. c. 34.

The character on which Mr. Haldeman has separated this as a distinct genus, does not appear sufficient. I have changed the name on account of being obliged to refer the next species to this genus. One specimen, Pennsylvania, Dr. Melsheimer.

16. *E. UNICOLOR*.—Valde elongatum, lineare, rufo testaceum, glabrum: thorace latitudine sesqui-longiore vage punctato, medio lævi: elytris vage sat grosse punctatis apice breviter bispinosis: antennarum articulis 3 et 4 spina brevi armatis. Long. .45.

*Stenocorus unicolor*, Rand. Bost. J. N. H., 2, 42.

*Stizocera unicolor*, Hald. 44.

I do not know that the reference to Serville's genus *Stozocera* is correct: he made it a section of *Ibidion*, from which our insect differs in having the femora not clavate. There is a gradual transition from the broad *E. marylandicum* to this very elongate cylindrical species, but the essential characters all remain unchanged. Pennsylvania and Virginia.

#### Species haud visæ.

17. *E. INERME*.—'Fuscum punctatum, robustum convexum, lanugine cinerea irroratum, antennæ corpore breviores, articulis 3—5 apice 1-spinosis, elytra vix truncata, angulis inarmatis.' Long. .6.

Nm. Ent. Mag.

*E. truncatum*, Hald. 33.

The thorax has a small dorsal callus. Pennsylvania. Belongs to §2.

18. *E. SOBRIUM*.—'Nigrum, punctatum, pilis canis obsitum, antennæ corpore longiores articulis 3—7 apice 1-spinosis, elytra paulo complanata, ad suturam depressa, truncata, utroque angulo dente acuta armato, femora apice inarmata, basi late rufa.' Long. .5.

Nm. Ent. Mag.

Thorax glabrous, without elevations. Belongs to §1. Possibly a variety of *E. notatum*.

19. *E. SPINICORNE*.—'Testaceum, lanugine cinerea passim irroratum, spatiis intermediis glaberimis, antennæ corpore fere longiores, articulis 3—10 apice bispinosis, elytra truncata, utroque angulo spina acuta armato, meso- et meta-femorum apices spina acuta interna armati.' Long. .8.

Nm. Ent. Mag.

*Stenocorus spinicornis*, Fabr. El. 2, 306.

*Cerambyx spinicornis*, Ol. 67, 17, 130.

It is doubtful if this species is found in the United States. I give it on Newman's authority.

20. *E. BIDENS*.—'Thorace inermi, subtuberculato, antennarum articulis bispinosis, corpore tesaceo.'  
*Stenocorus bidens*, Fabr. El. 2, 306.  
*Cerambyx bidens*, Ol. 67, 17, 125.

Fabricius gives it as South American. Germar says it is also found in the United States, and that *E. muricatum*, Hentz, is a synonym. The specimen, however, which is described by Haldeman under that name, (l. c. 33) I know by actual inspection to be a badly preserved *E. mucronatum*.

21. *E. NEWMANII*.—'Fusco-ferrugineum, punctatum, lanugine cinerea sparsim tectum, antennæ corpore valde longiores, articulis 3—5 apice 1-spinosis, elytra truncata, utroque angulo spina distincta armato, meso- et meta-femorum apices spina brevi interna armati.' Long. 1 unc.  
Hald. Ap. 375.  
*Elaphidion bidens*, Nm. Entom.

Very different from the true *E. bidens*.

22. *E. ARCTUM*.—'Ferrugineo fuscum, punctatum, pilis canis obsitum, antennæ corpore breviores, articulis 3<sup>io</sup> et 4<sup>to</sup> apice 1-spinosis, spina 4<sup>ti</sup> minutissima, thorax convexus, elytra linearia apice truncata, angulis spinosis, spina externa majore. Long. .35.  
Nm. Ent. Mag.

The thorax has not smooth spots. There is nothing in the description which prevents us from regarding this as a small specimen of *E. villosum*.

23. *E. PUBESCENS*.—'Pale yellowish brown robust, subcylindric, elytra nearly parallel, entire at tip. Long. 7 lin. lat. 2.'  
*Anoplium pubescens*, Hald. 34.

Pennsylvania. Mus. Melsheimer. The pubescence is uniform, the antennæ, elytra and feet unarmed.

24. *E. RIGIDUM*.—'Ferrugineum, antennis robustis subtus spinosis corpore longioribus, elytris pallidioribus estriatis et impunctatis depressioribus levibus pilis brevissimis instructis. Long. .6.  
Say l. c. *Stenocorus*.

#### ARHOPALUS, Serv.

Mandibulæ acutæ.  
Antennæ 11-articulatæ.  
Thorax rotundatus, vel subdepressis, vel convexus haud armatus.  
Elytra apice haud armata.  
Palpi æquales modici dilatati.  
Tarsi postici articulo primo elongato, reliquis conjunctis.

The type of this genus, as made by Serville, is *Clytus fulminans*. I have extended it so as to embrace all the large yellow and black *Clyti* with the thighs not

clavate, and likewise the united species heretofore classed with *Eriphus*, from which genus they differ in having no lateral thoracic tubercle. The *Clyti* referred to this genus by me, have the front less elongated than in the genuine *Clyti*, and not perpendicular, but only a little oblique as in nearly all *Cerambycidæ*.

§. Corpus pube densissima vestitum; thorax minus convexus.

1. A. SPECIOSUS.—Niger subtilissime punctulatus; capite flavo-pubescente; thorace latitudine duplo brevior, fasciis duabus interruptis flavis, elytris humeris fasciis 4 apiceque late flavis, 1<sup>ma</sup> a scutello obliqua 2<sup>da</sup> valde curvata, macula parva nigra prope apicem signatis; antennis nigris crassiusculis; pedibus abdomineque flavis, hoc piceo fasciato. Long. 1.0.

Lap. Mon. Clyt., 39, pl. viii. 48.

*Clytus speciosus*, Say Am. Ent. 53.

*C. Hayii*, Gray. Griff. Cuv.

Lives on the sugar maple in the northern parts of the United States. Maine to Lake Superior; the [postpectus with a dense yellow pubescence, the apex of the clytra rounded.

2. A. CHARUS.—Niger subtilissime punctulatus; thorax latitudine sesqui brevior, flavo-pubescente, fasciis 3 angustis nigris; elytris apice oblique truncatis, a basi ad quadrantem flavis, gutta utrinque parva ad medium, fascia lata apiceque flavis, antennis pedibusque nigris. Long. .85.

Say Bost. J. N. H., 1, 193. *Clytus*.

One specimen from Missouri, Dr. Engleman. The segments beneath are all edged with yellow hair, there is a small black spot on the humeri.

3. A. INFAUSTUS.—Niger subtilissime punctulatus, thorace latitudine parum brevior, flavo pubescente, fasciis 3 nigris; elytris margine basali, fasciisque 6 latis, flavis, 2<sup>da</sup> curvata, ultima apicali, apice oblique truncata; antennis pedibusque nigro-piceis. Long. .85.

Georgia, rare. The body beneath is covered with dense yellow hair, with the segments of the abdomen black at the base.

4. A. ROBINIÆ.—Niger subtilissime punctulatus, thorace latitudine fere duplo brevior, flavo-pubescente, fasciis 3 latioribus nigris, elytris basi, fasciisque 6 angustis flavis 2<sup>da</sup> valde curvata, ultima, apicali apice oblique truncata; antennis fuscis; pedibus ferrugineis. Long. .75.

Harris Cat. Ins.: Hd. 39.

*Leptura robinia*, Forster Cent. Ins., 43.

*Clytus flexuosus*, Fabr. 2, 345: Ol. 70, 76.

Common everywhere, parasitic in *Robinia pseudacacia*, the perfect insect frequents the flowers of different species of *Solidago*. Body black beneath, the segments margined with yellow.

5. *A. NOBILIS*.—Fusco-niger, pube cinerea brevissima vestitus; thorace subtiliter dense scabro latitudine duplo brevior; elytris gutta utrinque subbasali, altera ante medium, fasciisque 2 angustis flavis, posteriore obliqua, sæpius interrupta, apice rotundatis. Long. 1·0.

*Clytus nobilis*, Harris, Htf. Tr. 1, 84, tab. 1, 7.

New York and Pennsylvania, rare; the hind feet are more elongated than in the preceding species.

6. *A. FULMINANS*.—Niger, subtiliter punctulatus; capite cinereo, thorace latitudine vix brevior, supra cinereo, macula magna discoidali, alteraque utrinque laterali nigris; elytris fasciis 4 angustis irregulariter valde angulatis, apiceque cinereis, hac rotundata. Long. ·5—·75.

Serv. An. Ent. 3, 77.

*Clytus fulminans*, Fabr. 2, 346: Ol. 70.

*C. angulatus*, Fabr. 2, 350.

The posterior feet are somewhat elongated, but more so in the male; it is a common species in the Middle and Southern States.

§2. Corpus parcius longius pubescens; thorax convexus.

*Eriphus*, Hald. et Dejean.

7. *A. IGNICOLLIS*.—Niger pilis erectis nigris supra vestitus; thorace supra læte rufo parce punctato pilis flavis: elytris confertissime punctatis, pedibus posticis valde elongatis. Long. ·5.

*Callidium ignicolle*, Say J. A. N. S., 3, 412.

*Call. sanguinicolle*, Germ. Ins. 515.

Alabama, Missouri, and Santa Fé, a rare species.

8. *A. RUTILANS*.—Coccineus, pilis nigris erectis supra parce vestitus: thorace punctis paucis impressis; elytris parce grossius punctatis, pone medium nigris: capite, antennis, postpectore, pedibusque nigris pedibus posticis haud elongatis. Long. ·3.

Santa Fé. More hairy than *A. discoideus*, (*Call. discoideum*, Say,) and with a narrower thorax, the legs are entirely black.

9. *A. SUTURALIS*.—Coccineus, pilis nigris, erectis parce vestitus; thorace punctis paucis impressis; elytris parce grossius punctatis sutura sæpe nigricante; antennis, postpectore pedibusque nigris; pedibus posticis paulo elongatis. Long. ·27.

Say l. c.

*E. rubens*, Dej. Cat.

*Call. miniatum*, Germ.

Pennsylvania, rare, more abundant in the Southern States. Varies with the feet more or less rufous.

10. *A. DECORUS*.—Thorace globoso, flavo, fasciis 3 nigris, elytris nigris, fasciis 7 flavis.

*Call. decorum*, Oliv. tab. 8, fig. 92.

*Clytus*, Fabr.



11. *A. DISCOIDEUS*.—Rufus punctatus, capite postpectore, pedibus maculaque suturali dilatata nigris.  
Long. .5.

Say l. c. Vol. iii. p. 411. *Callidium*.

Mississippi.

#### GROUP 6.

This group only differs from the last in having the femora strongly clavate. The body is frequently very long and linear, and the elytra occasionally abbreviated or subulate. The palpi are not at all dilated, by which character it is separated from the next group. It seems to lead towards the *Callidia*: and contains several genera in which the anterior coxæ assume the subtransverse form, which becomes constant in the tenth and eleventh groups.

#### ANCYLOCERA, *Serv.*

Antennæ 11-articulatæ, glabræ.

Palpi breves æquales, articulo ultimo ovali.

Acetabula antica rotundata.

Femora valde elongata, subito clavata; tarsi postici articulo 1<sup>mo</sup> vix longiore.

Thorax cylindricus.

The body is elongate and cylindrical, scarcely pubescent above. The head is very short and obtuse. The antennæ of the males are elongate: in the females they are short and strongly serrate.

1. *A. RUGICOLLIS*.—Nigra, thorace latitudine plus duplo longiore, grosse punctato, transversimque rugoso, interstitiis subtiliter punctulatis, elytris dorso planiusculis, sutura elevata, grosse subseriatim punctatis, sanguineis apice truncatis, abdomine sanguineo. Long. .4.

*Gnomon rugicollis*, Fabr.

*Saperda bicolor*, Oliv. pl. 3, fig. 25.

Georgia and Carolina. I have seen a specimen with pale yellow elytra, but not having been able to compare it with others, I do not know whether it is distinct.

#### TINOPUS.

Antennæ filiformes, glabræ, 11-articulatæ.

Palpi breves, æquales, articulo ultimo ovali.

Prosternum planum non prominulum.

Pedes longissimi; femora apice subito clavata; tarsi postici articulo 1<sup>mo</sup> elongato.

Acetabula antica rotundata.

Thorax elongatus, medio paulo latior.

The body is linear, slightly pubescent and somewhat depressed; the elytra are margined at the base, with prominent humeri, and truncate obliquely at the tip. There are South American and Mexican species resembling ours, but much larger.

This genus seems closely related to *Compsocerus* and *Rhopalocerus*, but differs from both by its glabrous antennæ.

1. *T. LONGIPES*.—Nigra brevissime cinereo-pubescens, thorace latitudine plus sesqui longiore, lævi toto rubro, postice vix biimpresso, elytris grosse punctatis apice vix armata. Long. .3.

*Stenocorus longipes*, Say. J. A. N. S., 3.

Pennsylvania, Missouri Territory : rare.

### SCLEROCERUS, Dej.

Caput breve obtusum.

Antennæ elongatæ pilosa 11-articulatæ.

Thorax depressiusculus, postice subito valde constrictus.

Palpi maxillares longiores filiformes.

Acetabula antica extus angulata.

Elytra haud abbreviata, apice rotundatim acuminata.

Body elongate, linear, depressed, pubescent. Connects the present group with *Callidium*, from which it differs by having the palpi not dilated.

1. *S. LINEARIS*.—Fusco-testaceus, elytris pallidioribus, capite canaliculato, thoraceque scabroso-punctatis, hoc disco subimpresso, elytris capite thoraceque triplo longioribus rugose punctatis, linea utrinque obsoleta elevata. Long. .65.

*Stenocorus ? linearis*, Harris Hfd. Tr. 85.

*Sclerocerus muticus*, Dej. Cat.

New York, Mr. Guex ; rare.

### STENOPTERUS.

Caput elongatum porrectum.

Antennæ pubescentes filiformes, 11-articulatæ.

Palpi subæquales, articulo ultimo ovali.

Thorax medio obtuse tuberculatus, dorso valde inæqualis.

Acetabula antica extus angulata.

Elytra abbreviata, subulata.

1. *S. SANGUINICOLLIS*.—Niger, thorace læte rubro, margine antico posticoque nigris, transversim biconstricto, dorso 3-tuberculato, elytris testaceis, parce punctatis, pedibus posticis flavis, clava femorali tibiisque apice nigris. Long. .3.

Say. Bost. J. N. H., 1, 194.

*Necydalis sanguinicollis*, Ol.

The male has the posterior tibiæ very much bent, and roughened with short acute spines. Lake Huron, Ohio, and Alabama : rare. Dr. Schaum.

HELIOMANES, *Nm.*

Caput breve.

Antennæ pubescentes, filiformes, 11-articulatæ, ♂ valde elongatæ.

Palpi breviores, articulo ultimo ovali, labiales brevissimi.

Thorax lateribus rotundatus, depressusculus.

Acetabula antica extus angulata.

Elytra abbreviata, apice rotundata.

Tarsi postici articulo 1<sup>mo</sup> paulo elongato.

This genus leads off to the *Callidia*, with which it agrees in the form of its thorax and the shortness of the palpi. It appears to have very little relation with the square headed species of *Necydalis* with which it has usually been associated. The club of the femora is larger than in the preceding genera, being half of their entire length.

1. *H. OBSCURUS*.—Niger, cinereo-pubescent; thorace grosse punctato, obsolete 3-callosa: elytris oblique impressis, sat dense punctatis, glabris testaceis, apice margineque plus minusve nigris. Long. .2—·32.

Pennsylvania, New York, Georgia, Missouri Territory. Abundant on the flowers of *Cornus florida*.

2. *H. CORNI*.—Niger, cinereo-pubescent; thorace grosse punctato, læte rufo obsolete callosa; elytris profundius oblique impressis, glabris, punctatis macula magna testacea ad suturam extendente. Long. .25.

*Molorchus corni*, Hentz. Ms.

*M. ruficollis*, Dej. Cat.

Alabama, Carolina; rare.

## OBRIUM.

*Phyton*, *Nm.* *Diozodes*, Hald.

Antennæ filiformes, 11-articulatæ, versus basin pilosæ.

Palpi prominuli, articulo ultimo longiore, cylindrico.

Thorax basi valde, antice modice constrictus, lateribus subtuberculatis.

Abdomen articulo 1<sup>mo</sup> longissimo.

Elytra abdomine non breviora apice rotundata, depressa.

Acetabula antica rotundata.

I do not know why *Phyton*, *Nm.*, has been separated from this genus.

1. *O. RUBIDUM*.—Testaceo-rufum, capite thoraceque obscuris, dense punctatis, hoc postice minus angustato; dorso utrinque callosa; elytris convexiusculis, lævigatis, punctis paucis piliferis, basi oblique profunde impressis. Long. .36.

Dr. Zeigler gave me this insect as having been found in Pennsylvania, but from the manner in which it is pinned I have some doubt of its being American.

2. *O. PALLIDIUM*.—Depressum, pallidum nitidissimum; thorace postice valde angustato, lævigato, margine antica lineis 3 subelevatis fuscis; elytris punctis parvis piliferis, lineis 4 obliquis fuscis, ad suturam angulos formantibus testaceis; pectore tibiisque testaceis. Long. .21.

*Callidium pallidum*, Say.

*Phyton limum*, Nm. Ent. Mag.

*Diozodes pallida*, Hald.

Pennsylvania. Rev. Dr. Ziegler.

3. *O. RUBRUM*.—Rubrum pilis nigris tectum, caput rufum, oculis antennisque nigris, thorax ruber, lævigatus, elytra rubra punctata, meso-et-meta thorax subtus nigra, abdomen subtus rufum, pedes nigri, femoribus medio rufis. Long. .75.

Nm. Ent. Mag. V. p. 395.

4. *O. DENTATUM*.—Punctatum, pallide fuscum, thorace, lineis brevibus obscurioribus, elytris fasciis 4—5 undatis, dentatis, obscurioribus. Long. .3.

L. C. Ann. Lyc. 1, p. 172.

### CURIUS.

Antennæ corpore vix longiores graciles, 11-articulatæ.

Caput porrectum, oculis magnis fere rotundis, vix emarginatis.

Thorax dorso paulo complanatus.

Elytra thorace latiora, lateribus parallela, apice rotundata.

Pedes mediocres, femoribus tumidis, subtus dente magno mediano armatis.

1. *C. DENTATUS*.—Testaceus, obscurus, subtiliter et crebre punctatus, caput fuscum, antennæ pallidæ, articulis apice fuscis, thorax testaceus vitta longitudinali ante marginem posticum divisa fusca, elytra testacea fusco nubila, femora apice late fusca. Long. .275.

Nm. Ent. Mag.

2. *C. SCAMBUS*.—Caput vix porrectum, thorax fere cylindricus, dorso haud complanatus, pedes mediocres, femoribus repente valde tumidis, tibiis paulo arcuatis. Color luteolus fusco varius, antennarum articulis basi pallidis, apice fuscis, thorax glaber subtiliter punctatus, colore varius, elytra profunde punctata, luteola fusco varia. Long. .275.

Nm. Ent. Mag.

### GROUP 7.

This is composed of species having a strong resemblance to *Callidium*, but differing in the form of the anterior acetabula; they would be united to the preceding group, but for the dilated palpi. The maxillary palpi are always longer than the labial, and the joints of the abdomen nearly equal. From the *Clyti* this group differs by its porrected head.

### TYLONOTUS.

Antennæ 11-articulatæ, setaceæ, villosæ, articulis 4—11 extus bicarinatis.

Caput thorace angustius, oculis mediocribus.

Thorax rotundatus, subdepressus haud armatus, dorso callosus.

Palpi breves æquales.

Elytra apice rotundata.

This genus has very much the appearance of *Elaphidium*, but differs in having strongly clavate femora.

1. *T. BIMACULATUS*.—Fuscus, parce cinereo-pubescent; thorace dense subtilius scabroso, linea dorsali calloque utrinque ante medium rotundo lævigatis; elytris sat grosse punctatis, macula parva utrinque ante medium alteraque versus apicem pallidis: femorum clava pallida; abdomine testaceo. Long. .65.

For the only specimen of this species ever found, I am indebted to my friend Mr. Haldeman. It inhabits Pennsylvania.

#### IBIDION.

Antennæ longiusculæ, tenues, 11-articulatæ, glabræ.

Caput thorace latius, oculis magnis extantibus.

Thorax cylindricus, valde elongatus.

Palpi labiales mediocres.

Elytra apice rotundata.

The body is cylindrical and very much elongated, the United States species (forming Newman's *Heterachthes*,) have the third and sixth joints of the antennæ thickened in the males.

1. *I. 4-MACULATUM*.—Piceum, pernitidum, punctis parcis piliferis, thorace medio sub-callosa; elytris versus apicem indeterminate testaceis basi maculis utrinque 2 flavis. Long. .3—45.

Variat rufo-testaceum, elytris macula utrinque ante medium flava.

*Heterachthes 4-maculatus*, Hald.

Pennsylvania and Missouri.

2. *I. EBENUM*.—Nigrum opacum, obsolete punctatum, brevissime cinereo-pubescent; thorace linea obsoleta lævi. Long. .42.

The femora in this species are much less incrassated than in the preceding.

*Heterachthes ebenus*, Newman.

Georgia and South Carolina.

#### DRYOBIUS.

Antennæ elongatæ, pilis elongatis dense ciliatæ, 11-articulatæ.

Thorax capite non angustior, depressiusculus, lateribus paulo rotundatus dorso callosus.

Palpi labiales mediocres.

Elytra apice truncata.

The body is linear and depressed in my specimen, the femoral club is very much compressed, but this is probably a deformity.

1. *D. 6-FASCIATUS*.—Supra nigra nitida, capite postice thorace flavo-pubescentibus, hoc punctato utrinque transversim impresso, fascia ad medium lata glabra, callis 3 lævibus; elytris parce punctatis postice lævigatis, scutello fasciisque 4 ultima apicali flavis tomentosis antennis pedibusque rufis. Long. .65.

*Callidium 6-fasciatum*, Say.

Alabama, Haldeman. Say's specimen came from Arkansas.

## SMODICUM.

Antennæ 11-articulatæ, breviusculæ, glabræ.  
 Thorax capite vix latior, longiusculus, depressus.  
 Palpi breves æquales.  
 Elytra apice rotundata.

The body is linear and very much depressed; the anterior acetabula have a tendency to form a right angle externally. This genus connects the present group with *Callidium*.

1. *S. CUCUJIFORME*.—Lineare, depressum, flavo-testaceum, nitidum; thorace lateribus parallelis, basi subangustato, parcius punctato, linea dorsali lævi; elytris sat dense punctatis. Long. .3.

Hald.

*Callidium cucujiforme*, Say.

*Callidium cylindrides*, Nm. Ent. Mag., 5, 394.

Common under the bark of dead trees from New York to Georgia. There is a large reniform slightly impressed spot on each side of the prosternum, which is truncate posteriorly and marked with a short furrow.

## GRACILIA.

Antennæ longiusculæ, tenues, pubescentes.  
 Thorax capite vix latior, elongatus depressiusculus, lateribus paulo rotundatis.  
 Palpi labiales brevissimi.  
 Elytra apice rotundata.

The body is elongate and depressed, the femoral club very large.

1. *G. FUSCA*.—Opaca, fusca, cinereo-pubescentis; thorace latitudine sesqui longiore, dense punctato, linea dorsali lævi; elytris parce obsoletius punctatis, abdomine non brevioribus. Long. .27.

Varies with feet and antennæ paler.

*Nothrus fuscus*, Hald.

From New York and Georgia, rare. On a superficial examination I see no difference between this and the European *G. pygmæa*.

2. *G. MANCA*.—Opaca, fusca, cinereo-pubescentis; thorace latitudine sesqui longiore, lateribus rotundatis punctato linea dorsali vix lævi, elytris minus parce punctatis abdomine brevioribus. Long. .32.

New York, rare; easily distinguished from the preceding by the shorter thorax and the abbreviated elytra.

## ATIMIA.

Antennæ breviusculæ, tenues, pubescentes.  
 Oculi profunde emarginati fere divisi.  
 Thorax capite latior, quadratus, transversus lateribus non rotundatus.  
 Elytra thorace latiora apice truncata.

The body is rather robust and convex, having the appearance of a *Lamia*, in which group it was placed by Mr. Haldeman, but from which it is abundantly distinguished by its porrected head, facial antennæ, compressed palpi, and simple anterior tibiæ.

1. A. CONFUSA.—Punctata, nigra dense fulvo-pubescentibus; elytris maculis plurimis transversis, parvis, glabris, lævibus. Long. .33.

*Clytus confusus*, Say.

*Atimia tristis*, Hald.

Middle and Northern States.

#### GROUP 8

Is distinguished from all the other sections of the present tribe by its perpendicular front: the antennæ being inserted so high on the head as to produce a large quadrate face, almost as in the *Lamiæ*. The femora are always clavate, and the anterior acetabula round. The thorax is convex and sometimes even compressed.

This group approaches very closely the *Saperdoid* and *Dorcadoid Lamia*, and can, indeed, only be separated by a reference to the diagnostic characters derived from the palpi and anterior tibiæ. The femora are dilated in all *Clyti*, whilst they are filiform among *Lamiæ*. For this reason I have separated *Clytus supernotatus*, Say, and *pygmæus*, Hald., to form new genera among the *Lamiæ*: both of these species have the anterior tibiæ obliquely sulcate inwards. The large *Clyti* with yellow bands have already been united with *Arhopalus*, since their femora are scarcely clavate, their thorax subdepressed, and their front only slightly deflexed.

#### CLYTUS, Fabr.

Antennæ breviusculæ, crassiusculæ, pubescentes minime pilosæ.

Oculi subtriangulares, supra emarginati.

Thorax scaber, convexus, non compressus, haud armatus.

Elytra haud gibbosa; corpus pubescens.

I have separated the *Clyti* with gibbous elytra, on account of the antennæ being much thinner than in the genuine *Clyti*, and somewhat pilose towards the base.

#### A. Femora posteriora apice spinosa, pedes postici longissimi.

1. C. SCUTELLARIS.—Fuscus, thorace latitudine non longiore, scabro, medio longitudinaliter elevato, margine antico posticoque fasciaque tenui interrupta flavis, elytris basi rufis, scutello, lineisque 3 flavis, 1<sup>ma</sup> antice concava, secunda postice concava, 3<sup>ia</sup> extus obliqua; apice truncata, spina externa armata: antennis pedibusque rufis, clava femorali fusca. Long. .33—51.

Lap. Mon. Clyt. 53, tab. 11, 62; Hald. 40.

*Callidium scutellare*, Ol. 70, 52.

*Clytus humeralis*, Nm. Ent. Mag. 5, 394.

Ohio, Pennsylvania, Georgia. Rare.

2. *C. LUSCUS*.—Fuscus, thorace latitudine non longiore, scabro, medio longitudinaliter elevato, margine antico posticoque flavis; elytris basi rufis sicut in præcedente ornatis, apice truncatis, spinaque externa armatis; antennis rufis, articulis 6 and 7 fuscis; pedibus rufis, clava femorali fusca. Long. .5.

Fabr.

*C. aculeatus*, Dej. Cat.

*C. humeralis*, Nm. Ent. Mag.

Georgia and Pennsylvania. Distinguished from the former by the fuscous spot on the antennæ, and the absence of the thoracic fascia. Varies with the thorax rufous, the elevated portion being fuscous.

3. *C. RHOMBIFER*.—Obscure rufo-testaceus, thorace latitudine non longiore, lineis 5 brevibus, transversis, alterisque 2 versus latera longioribus elevatis; elytris sutura, margine basali, linea obliqua a humero ad suturam guttaque parva utrinque ad medium albido-pubescentibus, apice truncatis, spina externa armatis. Long. .45.

Oliv. pl. iv. fig. 51, and 6.

New York and Cuba. Probably imported; the abdomen is marked with white bands.

4. *C. ERYTHROCEPHALUS*.—Niger, capite thoraceque rufis, hoc latitudine non longiore, scabro, lineis 3 brevibus transversis, alteraque utrinque subbasali elevatis fuscis; elytris basi rufis, margine basali, fasciis 3 angustis flavis, apice oblique truncatis, vix armatis; antennis pedibusque rufis, illis extus crassioribus, articulis 5, 6 et 7 nigris. Long. .4—6.

Fabr. Oliv. pl. 70, fig. 60.

Georgia, Pennsylvania, Boston. Abundant; the yellow bands are continued on the abdomen.

5. *C. CAPRÆA*.—Supra niger, thorace latitudine brevior, margine antico flavo, medio longitudinaliter elevato; elytris annulo basali ad suturam extendente, fasciis 2 posticis obliquis, apiceque flavis subtus flavo annulatus; pedibus posticis modice elongatis. Long. .35—65.

Say. l. c.

*Clytus elevatus*, Lap. 32, pl. vii. fig. 40.

*C. gibbicollis*, Lap. 24, pl. vi. fig. 28.

New York to Mississippi.

## B. Femora posteriora apice non spinosa.

### a. Front not carinated.

6. *C. MARGINICOLLIS*.—Nigro-brunneus; thorace convexo lateribus rotundato, subtiliter scabro, margine antico et postico flavis; elytris basi rufescentibus, fasciis 3 apiceque flavis, fascia 2<sup>da</sup> antice ad suturam angulata, apice oblique truncatis; antennis pedibusque rufis femoribus posticis ad elytrorum apicem productis. Long. .45.

*C. vespoides*, Laporte 41, pl. ix. fig. 50. Dej. et Hald.



Georgia. The joints of the abdomen are margined with yellow, and there are spots of the same on the postpectus.

7. *C. RURICOLA*.—Nigro-brunneus; thorace scabro, globoso, margine antico flavo: elytris postice magis angustatis, macula subbasali, linea valde hamata, fasciaque pone medium sub-obliqua utrinque læte flavis, apice truncata; antennis pedibusque testaceis, illis apice femorumque clava fuscis; femoribus posticis ultra elytra extensis. Long. .45.

Ol. Lap. 56, pl. xi. fig. 65.

Pennsylvania, Ohio.

*b.* Front with two carinæ; antennæ inserted in an acute carina.

8. *C. UNDULATUS*.—Niger, thorace scabro, subtransverso, medio subelevato margine antico et postico flavis; elytris gutta pone basin, linea hamata postice sinuata, fascia pone medium sinuata, utrinque flavis; apice truncato cum scutello flavo marginato; antennis pedibusque fusco-rufis, femoribus posticis ultra elytris non extensis. Long. .4—6.

Say. l. c.

*C. undatus*, Kirby.

*C. Sayii*, Lap. 55, pl. xi. fig. 64.

Lake Superior, tolerably abundant. Varies with the markings white and connected by longitudinal lines. The female has the head coarsely granulated; in the male there are two large spots nearly meeting on the vertex, which are finely granulate; there are two small carinæ on the front.

9. *C. FUSCUS*.—Castaneus, thorace scabro, transverso, medio subelevato lateribus late vage cinereis; elytris puncto subasali, linea hamata postice sinuata, fasciaque pone medium sinuata utrinque angustis cinereis, apice truncata extus acuta; antennis pedibusque rufis, femoribus posticis ultra elytra non extensis. Long. .45.

Kirby. N. Z.

New York and Pennsylvania. Only differs from the preceding in the pubescence of the thorax, the head has two finely granulate spots, and there are two frontal carinæ.

10. *C. GRAMINEUS*.—Fusco-niger pilis cinereis intermixtis, thorace scabro, vix transverso, medio subelevato, a medio antrorsum recte angustato; elytris macula parva subbasali, linea hamata fascia pone medium biangulata, utrinque cinereis, subobliteratis, apice truncata cinereo marginata, spina externa armata; femoribus posticis ultra elytra extensis. Long. .6.

Hald. l. c. Klug.

Oregon. Mr. Wilcox. One male, the frontal carinæ longer than in the preceding and the finely granulate spots smaller.

11. *C. CAMPESTRIS*.—Subtus niger cinereo fasciatus; thorace obscure ferrugineo, disco nigricante transversim scabroso, latitudine haud brevior, antrorsum a medio recte angustato, apice basique cinereis; elytris testaceis, nitidis punctatis, parce longius cinereo-pubescentibus, apice truncata, subacuta; antennis nigris pedibus testaceis, femoribus posticis elytris brevioribus. Long. .45.

Oliv. iv. pl. 70, fig. 45.

*C. terminans*, Fab. teste Germar.

Pennsylvania. Narrower than the preceding, the frontal carinæ are long and fine, and the finely granulate spots are very large, the pubescence of the elytra forms two very indistinct oblique bands.

12. *C. PUBESCENS*.—Totus piceo testaceus, fusco pubescens, elongatus cylindricus; thorace latitudine longiore, lateribus sub-rotundatis, transversim valde scabroso; elytris rugose punctatis, sutura ad dodrantem cinereo pubescente ramos duos brevissimos emittente, apice truncata, extus valde spinosa; femoribus posticis elytris brevioribus. Long. .5—·75.

*C. pubescens*, Dej. Cat.

Georgia, rare. The body beneath is immaculate, the head with two short frontal carinæ; it is coarsely granulate in the female, and finely in the male.

13. *C. AGRESTIS*.—Piceo-niger, capite bicarinato; thorace globoso, lateribus rotundato, transversim scabroso angulis, fascia ad medium interrupta, vix distincta flavo-pubescentibus; elytris linea angusta curvata, flava a scutello, fascia lata utrinque sinuata, altera pone medium apiceque late cinereis, hac oblique truncata, extus spinosa; femoribus posticis elytris brevioribus. Long. .75.

One specimen from Georgia. The markings are precisely the same as in the next, from which it differs in the oblique truncation of the elytra and the broader thorax.

14. *C. COLONUS*.—Piceo-niger; capite bicarinato; thorace latitudine sesqui longiore, lateribus paulo rotundatis, transversim valde scabroso, angulis, fasciaque indistincta interrupta ad medium flavo-pubescentibus; elytris linea curvata flava a scutello, fascia lata utrinque sinuata, altera pone medium apiceque late cinereis, hac recte truncata. Long. .35—·55.

Pennsylvania, Georgia, Missouri. Abundant; the head of the male has two triangular finely granulate spots.

15. *C. HOPEI*.—Rubro-fuscus, thorace inæquali, lateribus subspinoso, elytrorum sutura, maculis 3 transversis et puncto utrinque cinereis. Long. .6.

Lap. 18, pl. v. fig. 20.

#### Species mihi ignotæ.

16. *C. CARINATUS*.—Obscurus, thorace longitudinaliter carinato, lineis 3 transversis, elytrorum macula humerali et alteris 3 transversis luteis, pubescentibus. Long. .4.

Lap. 19, pl. v. fig. 23.

17. *C. LICIATUS*.—Obscure fuscus, thorace lineis longitudinalibus, elytris maculis transversis flavis. Long. .7.

Lap. 36, pl. viii. fig. 45.

18. *C. LONGIPES*.—Subtus elytris fuscus, prothorace oblongo, disco carinato et muricato, elytris puncto, fasciisque 3 sublunatis piloso-albis, pedibus rufis, posticis longissimis. Long. .525.

Kirby. F. Bor. Am. iv. 235, p. 176.

19. *C. ANNOSUS*.—Niger, pilis brevibus griseis, carina triangulari inter oculos. Long. .5.

Say. J. A. N. S. Phil., v. p. 257.

20. *C. GAZELLULA*.—Subtiliter scaber, pallide fuscus, pronoto obscuriore elongato, postice angustato, subtus et antennis obscure testaceis, elytris apice maculis 2 subbasalibus, fasciaque media transversa albis tomentosis. Long. .3.

Hald. l. c.

Pennsylvania.

21. *C. 4-MACULATUS*.—Niger, elytris pallide flavido-fuscus, pronoto utrinque macula flava ad angulum singulum. Long. .5.

Pennsylvania. Hald. l. c.

Probably a variety of *C. colonus*.

### CYRTOPHORUS.

Antennæ longiusculæ, filiformes, pubescentes, parce pilosæ.

Oculi subtriangulares, superne emarginati, parte postica minima.

Thorax compressus, haud armatus, confertissime reticulatim punctatus.

Elytra basi gibbosa, pubescentia.

All the species known to me have the elytra ornamented with two cinerous oblique anterior lines, and one transverse line about the middle.

1. *C. VERRUCOSUS*.—Thorace valde compresso-elevato, elytris basi valde gibbosis, pone gibbera oblique impressis, postice cinereo-pubescentibus, apice oblique truncatis, antennarum articulo 3<sup>o</sup> spina longa armato. Long. .35.

*Clytus verrucosus*, Fabr.

Varies in color; usually piceous, with the base of the elytra and the middle of the pectus testaceous. Sometimes the whole of the under surface, except the abdomen, becomes testaceous, the transverse cinereous line is not confluent with the oblique ones, and the apical pubescence extends nearly up to it. Found from Massachusetts to Georgia.

2. *C. NIGER*.—Niger, thorace modice compresso; elytris basi paulo gibbosis, postice cinereo-pubescentibus, apice integra, antennis non spinosis. Long. .32.

Lec. Agassiz Lac. Sup.

One specimen, Eagle Harbor. The posterior oblique line is confluent with the transverse one, and the apical pubescence extends scarcely one-half way to the latter.

3. *C. DUPLICATUS*.—Niger, thorace paulo compresso; elytris basi gibbosis, lineis 2 obliquis, approximatis, transversa valde remota, pone medium sita, apice integra; antennis non armatis. Long. .22.

*Clytus duplicatus*, Hald. l. c.

Pennsylvania, rare. Smaller than the preceding, and remarkable for the distance from the oblique lines to the transverse one; the apex is not cinereous, and the punctures of the elytra are smaller.

## EUDERCES.

Antennæ longiusculæ, filiformes, pubescentes, parce pilosæ.  
 Oculi divisi, parte inferiore triangulari, superiore remota parva rotundata.  
 Thorax postice valde attenuatus, longitudinaliter plicatus.  
 Elytra basi gibbosa, postice lævigata, fere glabra.

1. *E. PICIPES*.—Niger, elytris gibbere oblongo, basali, ultra medium densissime minus subtiliter granulatis, apice vix truncatis, striga transversa parum obliqua, eburnea. Long. .21—·3.  
*Clytus picipes*, Fab.

New York and Georgia, abundant. Varies with the anterior half of the elytra, the pectora, feet and antennæ rufo-testaceous.

## GROUP 9.

This group is founded on a very remarkable insect having the appearance of *Dorcadion* or *Parmena*, caught in the mountains of Georgia. It continues still farther the last group in the direction of the *Dorcadoid Lamia*, but presents such a curious assemblage of characters, that it is very difficult to know where it should be placed, although its true affinities are obvious at first sight. From the preceding group it is distinguished by its large exserted head, short and but slightly inclined front, and entire acetabula, in which it agrees with the fourteenth group alone of all that have been seen by me. The antennæ are very widely separated and inserted under a slight margin. They are partly embraced by the eyes, which are very narrow, almost divided, and situated obliquely with the superior portion larger than the inferior. The maxillary palpi are as long as the head, the second and third joints equal and triangular, the last joint very much dilated and securiform; the anterior tibiæ have on the posterior face a distinct oblique groove, a character which is found nowhere else in this tribe, and which at once indicates a strong affinity with the *Lamia*.

## MICHTHISOMA.

Caput exsertum.  
 Thorax ovalis, convexus, postice angustior, lateribus spina acuta obliqua postice armatis.  
 Femora crassissima, tibiis anticis modice curvatis, articulo 1<sup>mo</sup> posticorum elongato.  
 Elytra connata, convexa apice singulatim rotundata.

The elytra are depressed and almost margined at the base, which gives them an almost gibbous appearance. The anterior femora have a slight angle beneath near the base. The antennæ are filiform and as long as the body, with a few setæ.

1. *M. HETERODOXUS*.—Elongatus niger, capite et thorace confertissime grosse punctatis, nitidissimis, pilis cinereis, erectis obsitis, parte basali depressa, granulata. Long. .27.

Found near the top of Yona mountain. The elytra are twice as long as the head and thorax, a little dilated to the middle, from which place they are gradually and somewhat obliquely narrowed.

## GROUP 10.

This group begins the approach towards the *Spondylidæ*, by having the anterior acetabula externally prolonged into an angle. By this character it differs from all the preceding groups, except some members of the sixth, but these are immediately distinguished by their cylindrical palpi; they are all depressed elongated insects with rarely any armature to the thorax or elytra, the latter in a great majority of the genera are rounded on the sides. The femora, as far as I have been able to examine, are always very much clavate.

HYLOTRUPES, *Serv.*

Oculi valde emarginati.

Palpi labiales marginales æquantés.

Labrum integrum.

Coxæ anticæ distantes.

Mesosternum latum, postice emarginatum.

1. *H. BAJULUS*.—Niger cinereo pubescens, thorace latitudine duplo brevior, longius villosus, linea dorsali calloque utrinque modice elevato lævibus; elytris coriaceo-punctatis, fasciis 2 obsolete dense pubescentibus. Long. .45—.75.

This species has most probably been introduced; it is found only in the vicinity of cities. Germar in a letter to Dr. Morris, states that it is different from the European insect, but on comparison I do not detect anything worthy of note. Varies with the elytra testaceous.

2. *H. BULLATUS*.—Niger, cinereo-pubescens, thorace latitudine triplo brevior, longius villosus, punctato obsolete in disco, linea dorsali vix conspicua, callo majore utrinque lævi; elytris postice angustatis, testaceis, coriaceo-punctatis, fasciis 2 indistinctis densius pubescentibus. Long. .75.

Hald. l. c.

One specimen, New York. Only differs from the preceding by its wider thorax, with the punctures of the disc obsolete, and by the elytra narrowed behind. It may be merely an accidental monstrosity.

PHYSOCNEMUM, *Hald.*—*Anaglyptus*, *Muls.*

Oculi profunde emarginati.

Palpi labiales maxillaribus breviores.

Labrum integrum.

Coxæ anticæ modice distantes.

Mesosternum latum emarginatum.

## §. Femora postica valde clavata, pedibus valde elongatis.

1. *P. ANDREÆ*.—Cinnamomeum, granulatum, thorace tuberculo magno utrinque versus basin valde elevato; elytris nigricantibus, basi apiceque indeterminate rufis, lineis eburneis crucem S<sup>u</sup> Andreae formantibus; clava femorali fusca. Long. .8.

Hald. l. c

Georgia, rare.

2. *P. BREVILINEUM*.—Nigrum, granulatum, thorace linea postica dorsali spatioque utrinque lævibus, tuberculo modice elevato utrinque pone medium; elytris nitidis, violaceo micantibus, lineis 3 vel 4 brevibus versus medium paulo elevatis. Long. .4—57.

Pennsylvania and Missouri, rare.

## §§. Femora postica minus subito clavata.

3. *P. PROTEUS*.—Subtus niger, supra nitidum parce pubescens, capite thoraceque violaceis, grosse punctatis, hoc disco plus minusve lævigato postice angustato, breviterque tubulato; elytris ænescentibus, coriaceo-punctatis, striis 2 eburneis pone medium abbreviatis, femoribus læte flavis, modice incrassatis, pedibus modice elongatis. Long. .57.

*Callidium proteus*, Kirby, N. Z.

New York and Lake Superior. The lines of the elytra are more or less obsolete, and sometimes the lateral margin is also white.

4. *P. LIGNEUM*.—Nigrum, longius cinereo-pubescens, thorace rotundato punctato, callis 5 paulo elevatis, lævibus; elytris thorace latioribus coriaceis, flavis pone dodrantem nigris, maculaque utrinque mox ante medium nigra; pedibus brevibus, femoribus posticis paulo clavatis. Long. .3—45.

*Callidium ligneum*, Fabr.

New York and Maine. The spot on the elytra sometimes enlarges so as to reach the base and suture: for this very rare variety I am indebted to Mr. Guex.

5. *P. SIMILE*.—Nigrum, punctulatum, pilosum, prothorace utrinque pulvinatum, minutissime et confertissime confluentem punctulatum, elytris æneo-luridis, lineis duabus elevatis, callosis pallidis, confluentibus, antennis apice femoribusque rufis. Long. .7.

Kirby N. Z. p. 175.

PHYMATODES, *Muls.*

Oculi valde emarginati.

Palpi labiales maxillaribus multo breviores.

Labrum integrum.

Coxæ anticæ contiguæ.

Mesosternum subtriangulare.

The type of Mulsant's genus is *Callidium variabile*, and the generic character given is founded on the thoracic tubercles. Nevertheless, finding that species to differ from the genuine *Callidium* in the relation of the palpi, I have retained his

name. Kirby's *Merium* (N. Z.) would contain both this as well as the following and the preceding genus. As it is founded on a single character apparently of no importance, I have rejected the name altogether.

1. *P. ÆREUS*.—Piceo ænescens, pubescens, thorace vage punctato, dorso obsolete 4-callosa; elytris rugose-punctatis; pedibus pallidis, femoribus subito valde clavatis; antennis breviusculis valde pilosis. Long. .35—.45.

*Call. æreum*, Nm. Ent. Mag. 5, 393.

*Callidium pallipes*, Hald. 37.

New York and Pennsylvania.

2. *P. VARIABILIS*.—Fuscus, thorace lateribus rotundato, rufo, vage punctato callo utrinque paulo elevato, carinaque dorsali obsolete lævibus; elytris ænescentibus, confertim subtiliter punctatis; femoribus apice subito valde clavatis; antennis elongatis. Long. .35—.55.

Mulsant: Hald.

*Callidium variabile*, Fabr. Ol.

A common species; probably introduced; varies with the body legs and elytra rufous.

3. *P. COLLARIS*.—Elongatus, saturate fuscus; pedibus thoraceque rufis hoc latitudine haud brevioribus, lateribus subangulato, vage punctato, subcalloso, disco utrinque infuscato; elytris subtiliter confertim punctatis, ænescentibus; femoribus subito modice clavatis, apice fusco; antennis tenuibus paulo pilosis, corpore brevioribus. Long. .35.

*Call. collare?* Kb. N. Z.

One specimen, New York: sufficiently distinct from the preceding by its narrower body, more elongate thorax, shorter, thinner and less clavate antennæ.

4. *P. AMÆNUS*.—Læte rufus, parce nigro-pilosus; thorace rotundato, parce punctato, callo utrinque, carinaque dorsali, obsolete lævibus; elytris cyaneis, rugose-punctatis; femoribus minus subito valde clavatis; antennis, tibiis tarsisque fuscis, illis corpore paulo brevioribus, parce pilosis. Long. .15—.3.

*Call. amœnum*, Say.

*Eriphus coccineicollis*, Hald.

New York, rare.

5. *P. DIMIDIATUS*.—Piceus, brevissime pubescens, thorace convexiusculo, latitudine vix longiore, pone medium angustato, subtiliter dense punctato linea dorsali lævi; elytris subtiliter punctatis, usque ad medium castaneis; femoribus minus subito valde incrassatis; antennis corpore vix brevioribus, tenuibus. Long. .35.

*Call. dimidatum*, Kb. N. Z.

*Clytus palliatus*, Hald.

6. *P. VARIUS*.—Niger, pubescens, thorace rotundato, confertim punctato callo utrinque lineaque dorsali obsolete: elytris fasciis 2 albo-pubescentibus, anteriore sæpius dilatata; femoribus subito valde clavatis antennis corpore brevioribus pilosis. Long. .35.

New York and Lake Superior. The thorax and base of the elytra are sometimes rufous.

7. *P. LEPIDUS*.—Elongatus, niger, cinereo-pubescens, thorace læte rufo nitido convexo, rotundato, vage punctato; elytris subrugose-punctatis; antennis elongatis; femoribus posticis, gradatim paulo clavatis. Long. .47.

One specimen from Pic river, on the north side of Lake Superior. I should have considered this as the true *Call. collare*, Kirby, were it not for the absence of the lateral thoracic protuberance. The last joint of the antennæ is constricted near the apex, so as to have very much the appearance of a twelfth joint.

### CALLIDIUM, *Fabr.*

Oculi profunde emarginati.  
Palpi subæquales, longiusculi.  
Labrum integrum.  
Coxæ anticæ contiguæ.  
Mesosternum subtriangulare.

This genus, as restricted by me, appears to be quite limited.

- C. ATENNATUM*.—Nigro-cyaneum, thorace subtiliter alutaceo, vage punctato, utrinque impresso; elytris rugose-punctatis, ♀ thorace non latioribus. Long. .4—57.  
Nm. Ent. Mag., 5, 393.

The male has the thorax wider than the elytra, the sides are thickly granulate and separated from the medial smoother portion by a well defined line, having a sharp angle directed outwardly; the antennæ are longer than the body, and much thicker at the base; the club of the femora is larger than in the female.

2. *C. JANTHINUM*.—Violaceum vel nigro-cyaneum, thorace dense punctato, disco haud impresso; elytris thorace latioribus rugose punctatis. Long. .52.  
*Call. janthinum*, Dej. Cat.

New York, rarer than the preceding: I only possess females, and know not if the thorax of the male is dilated. Both of these species are distinct from the *Call. violaceum* of Europe.

### TETROPIUM, *Kirby.* *Criomorphus*, Mels. *Isarthron*, Dej.

Oculi divisi.  
Palpi æquales minus elongati.  
Labrum profunde emarginatum.  
Coxæ anticæ contiguæ.  
Mesosternum triangulare, apice acutum.



1. *T. CINNAMOPTERUM*.—Nigro-piceum, sericeo-pubescent, thorace lateribus rotundato, dense punctato, linea dorsali sublævi; elytris confertissime subtiliter punctatis; antennis dense pilosis; femoribus gradatim crassis, basi not attenuatis. Long. .45—.55.

*T. cinnamopterum*, Kirby, N. Z.

New York and Pennsylvania, more abundant at Lake Superior. Varies very much: the elytra are sometimes reddish-brown and occasionally have two well marked costæ. The punctuation of the thorax is sometimes very sparse: it varies in form being rarely transverse. The male has longer antennæ than the female, and their base is a little thickened.

#### GROUP 11.

This group completes the approach to the *Spondylidæ*: it contains species with the anterior acetabula still more prolonged externally than the preceding group, and the eyes are simply transverse, not embracing the antennæ, which are situated at the base of the mandibles and in front of the eyes; the inner lobe of the maxillæ is sometimes obsolete.

#### ASEMUM, *Esch.*

Oculi parvi transversi, valde emarginati.

Palpi breviores, haud dilatati.

Pedes crassiusculi.

1. *A. MÆSTUM*.—Nigrum, punctatum, breviter dense pubescens, thorace rotundato scabro, medio punctato, nunc canaliculato, nunc utrinque impresso; elytris obsolete striatis; oculis depressis angustis. Long. .45—.6.

*A. mæstum*, Dej. Cat.

*A. substriatum*, and *A. fuscum*, Hald.

Varies from brown to black. Abundant from Lake Superior to Georgia.

2. *A. AUSTRALE*.—Piceum punctatum, dense pubescens; thorace rotundato, scabro, medio punctato, subcanaliculato; elytris obsolete striatis; oculis majoribus convexis antennis basi crassioribus. Long. .5.

One specimen, Georgia; it has short legs like the preceding; the eyes are almost as large as in *Criocephalus*, but are deeply emarginate; the palpi are slightly dilated.

#### CRIOCEPHALUS, *Muls.*

Oculi magni, transversi parum emarginati.

Palpi prominuli, dilatati.

Pedes longiusculi, tenues.

1. *C. PRODUCTUS*.—Valde elongatus, linearis, niger, thorace nitido, parce subtiliter punctato, profunde canaliculato, utrinque profunde impresso; elytris rugose-punctatis, bicostatis; antennis corpore vix brevioribus: tuberculo infra oculum acuto. Long. .95.

Easily distinguished from the next by its narrower form, shining thorax, and long antennæ; the costæ of the elytra are sometimes undoubtedly obsolete. I have but one specimen from Oregon, for which I am indebted to Mr. Wilcox.

2. *C. AGRESTIS*.—Piceus, thorace opaco, dense subillissime punctato, vix canaliculato, impressione profunda basali, alteraque utrinque dorsali excavatis; elytris obsolete bicostatis; antennis corpore duplo brevioribus tuberculo infraoculari acuto. Long. 1.05.

Hald.

*Call. agreste*, Kirby, N. Z.

Maine to Fort Laramie; the antennæ of the male are thinner but not longer than those of the female.

3. *C. OBSCURUS*.—Piceus, thorace opaco, dense granulato-punctato, lateribus valde rotundatis, impressionibus 3, parvis notato; elytris sat grosse punctatis, obsolete bicostatis, apice acutius rotundatis; sutura haud prominula; tuberculo suboculare obtuso. Long. .95.

One specimen, Western New York.

4. *C. NUBILUS*.—Piceus, thorace opaco convexo, minus subtiliter scabro, lateribus modice rotundatis, disco haud impresso; elytris grossius cribrato-punctatis, postice subangustatis, apice latius rotundatis, sutura paulo prominula. Long. .76.

The antennæ are somewhat longer than in the preceding, and the subocular tubercle is obtuse.

#### GROUP 12.

This group recedes on the other hand towards the *Lepturidæ*. It seems closely related to the fifth group, especially *Eburia* and *Cerasphorus*, but the palpi are more elongated, and the antennæ are situated at the base of the mandibles, entirely in front of the eyes, which are simply transverse. The anterior acetabula are round and the coxæ large, the mandibles are truncate at the apex, with the edge acute.

#### DISTENIA.

Palpi maxillares labialibus duplo longiores.

Thorax armatus, dorso callosus.

Elytra apice acute bispinosa.

Corpus depressiusculum, utrinque paulo angustatum.

This genus has been associated with the *Lepturæ*, on account of its head, which is a little narrowed behind the eyes, and more porrected than is usual in the present tribe; we have already seen that these are not reliable characters, and I have removed it from the *Lepturidæ* on account of its globular anterior coxæ.

1. *D. UNDATA*.—Piceus dense breviter cinereo-pubescens, thorace utrinque constricto, linea dorsali, callisque 4 glabris, lævibus; elytris grossius 4-seriatim punctatis, interstitiis punctis paucis, fasciis 2 angulatis atris, versus basin nebulosis. Long. 1.05.

Dej. Cat.

Georgia, New York, rare. The antennæ are setaceous, and longer in the male than in the female.

#### GROUP 14.

In this group the highest development of the tribe is reached: the anterior acetabula are round and entire; the front immediately below the antennæ is perpendicular, but from the oblique position of the mandibles this is not very conspicuous. But what especially distinguishes this group is the very slight development of the maxillary palpi, which are cylindrical, and do not extend beyond the lobe of the maxilla. The labial palpi are longer and slightly dilated. This group seems related to the typical *Lamiæ*.

#### CALLICHROMA.

Mandibulæ elongatæ, rectæ, pyramidatæ.

Antennæ 11-articulatæ, articulo 1<sup>mo</sup> valde incrassato.

Thorax acute spinosus, disco inæquali.

Elytra apice rotundata.

Pedes postice elongati, vix clavati.

1. *C. SPLENDIDUM*.—Splendide viridi aureum, thorace granulato, spina, elevatione postica utrinque lævigatis, antice profunde constricto; elytris viridi cyaneis, granulatis opacis abdomine femoribusque aurantiacis; antennis, tibiis, tarsis genibusque nigerrimis. Long. 1.25.

Georgia and New Orleans. Sometimes very abundant. It diffuses a strong musky and very pleasant odour. Haldeman has considered this as identical with *Cerambyx elegans*, Fabr. and Olivier, which, however, according to description has a black body, entirely ferruginous legs, and a spotted thorax.

The following genus described by Newman in the Entomological Magazine, I have not been enabled to arrange in any of the preceding groups, from the want of proper characters to determine its precise situation.

GLAPHYRA, *Nm.*

Caput fere pronum, thorace haud angustius.

Antennæ vix dimidio corporis longiores, 11-articulatæ, articulis ultra 6<sup>um</sup> brevioribus, crassioribus.

Thorax dorso complanatus, lateribus paulo convexus nullo modo armatus.

Elytra valde abbreviata, apice rotundata, nullo modo alas tegentia.

Pedes mediocres, femoribus pedetentim tumidis, tibiis paulo incrassatis, hirsutis, tarsis brevibus.

1. *G. SEMIUSTA*.—Castanea, thorax et elytra profunde punctata abdominis segmentis apicalibus nigerrimis.  
Long. '175.