Descriptions of Coleopterous Insects collected in the late Expedition to the Rocky Mountains, performed by order of Mr. Calhoun, Secretary of War, under the command of Major Long. By Thomas Say, Zoologist to the Expedition. Read October 22, 1823. (Continued.)

#### TROX, Fab.

1. T. capillaris. Clypeus rounded at tip, not reflected; elytra tuberculated.

Inhabits Upper Missouri.

Body cinereous-fuscous: clypeus with two elevated, obtuse tubercles; tip rounded; edge not reflected: thorax inequal, canaliculate, minutely hispid; posterior angles acute: scutel not contracted at base or middle: clytra with elevated, subacute, reflected tubercles placed in regular series, which are alternately smaller and separated by elevated capillary lines: punctures obsolete: beneath black: anterior tibia two-toothed, the terminal one emarginated.

Length seven-twentieths of an inch.

The clypeus of this insect is not angulated, nor reflected before; and the slightly elevated, acute or capillary, longitudinal, interstitial lines, distinguish it from other species.

2. T. scutellaris. Thorax inequal, posterior

angles rounded; elytra with elevated polished spaces and impressed lines.

Inhabits Upper Platte.

Body black, the depressions dusky-cinereous: clypeus punctured, and with two distinct rounded tubercles; anterior tip angulated; edge reflected; thorax very unequal, punctured; lateral edge entire; posterior angles very obtusely rounded: scutel angularly contracted in the middle, acute at tip: elytra with somewhat capillary impressed striæ, and transverse irregular impressed lines, dividing the surface into irregular, longitudinally-quadrate, equally elevated, polished spaces; a few remote punctures: feet profoundly punctured: anterior tibia with a very obtuse crenation on the exterior edge.

Length thirteen-twentieths of an inch.

This I believe to be our largest species; like its kindred, it feeds upon decomposing animal bodies, and is an inhabitant of the superior portion of the extensive region, through which the rivers Platte and Arkansa flow. It may be distinguished from its neighbouring large species, by the entire lateral thoracic edge, and by the equally elevated polished spaces of the elytra.

## CETONIA, Fab.

C. barbata. Hairy, scutellate; elytra glabrous, pale reddish-yellow, spotted with black.

Inhabits the United States.

C. lanius, Fab. tonkæa, Herbst. Of Melsh. Catal.

Body with long yellowish-cinereous hair: clypeus entire, concealed by the hair; margin reflected: thorax covered with hair, beneath which it is cupreous, varied with blackish; anterior and posterior margin reddish-yellow, the latter emarginate for the reception of the scutel: scutel reddish-yellow varied with black, oblong-triangular, acute: elytra reddish-yellow, with numerous, irregular, black-brown points, and a few obsolete, remote, short hairs: beneath blackish-cupreous, very hairy: venter glabrous; segments margined with reddish-brown.

Length rather more than half an inch.

Not uncommon in various parts of our country, and is found at Council Bluff on the Missouri, and upon the Arkansa. Mr. Melsheimer, in his catalogue, refers it to lanius and tonkwa; but it disagrees with the descriptions of each of these insects, by having a very distinct and rather large scutel, inserted at base into a thoracic emargination. Neither does it agree with the description of C. carnifex, to which it has also been referred.

#### TRICHIUS, Fab:

T. eremicola. Chesnut colour; thorax darker, with an excavation and an anterior elevated line.

Inhabits the United States.

Trichius eremicola, Knoch in Melsh. Catal.

Head excavated between the eyes; edge elevated into a tubercle over the insertion of the antennæ; anterior edge reflected: thorax with a transverse dilated excavation before the middle, anterior to which is a transverse, elevated, abbreviated line; punctures numerous and dense before, sparse behind: elytra smooth, simply punctured.

Length one inch to one inch and a quarter.

A rare insect, but occasionally occurring in various parts of the country. Mr. Nuttall brought a specimen from the Missouri. It is allied to T. eremita, but differs from it in many respects, particularly in the sculpture of the thorax and elytra.

#### MELOLONTHA, Fab.

1. M. longitarsa. Pale, cinereous-testaceous; clypeus profoundly emarginate; tarsi elongated.

Inhabits Missouri.

Body pale, punctured, nearly glabrous: clypeus very densely punctured above, and sparsely so before; anterior edge very profoundly emarginate, the lobes concave above: thorax with numerous, slightly indented, irregular punctures; posterior angles subacute: scutel rounded at tip: elytra with irregular punctures: beneath subglabrous:

tarsi elongated, anterior ones as long as the femora and tibia conjunctly: nails armed with a strong tooth near the base.

Length nine-twentieths of an inch.

It is probably rather rare. The form of the body is cylindrical and elongated; the tarsi are remarkably elongated.

2. M. lanceolata. Above with small lanceolate hairs or scales; beneath hairy.

Inhabits Missouri and Arkansa.

Body short, suboval, black or reddish-brown; nearly covered above with small lanceolate cinereous scales, which arise from impressed punctures: clypeus slightly emarginate, edge reflected: thorax a little dilated each side before the middle into a rounded angle; posterior angles acute; lateral edge slightly crenated: scutel rounded at tip: elytra with minute elevated points between the scale-like processes; from two to four obsolete, subglabrous lines: pectus and postpectus downy: venter in the male, having a compressed tubercle on the centre of each of the three middle segments, and the penultimate segment much indented: nails one-toothed near the base.

Length three-fifths of an inch.

This insect is very short in proportion to its thickness; and the remarkable character of the compressed tubercles on the venter of the male, readily distinguish it from other species. I found this species near the Rocky Mountains.

3. M. hirsuta. Castaneous, hairy; hair disposed in lines on the elytra.

Inhabits the United States.

M. hirsuta, Knoch in Melsh. Catal.

Head hairy; punctures dilated, crowded, confluent; anterior edge emarginate, slightly reflected: thorax hairy: punctures dilated, large, irregular, confluent, with slightly elevated centres, each furnishing a rigid hair; lateral edge minutely crenate, dilated in the middle: scutel punctured each side, rounded at tip: elytra minutely rugose; hair disposed in five or six longitudinal series on each elytron: breast with short cinereous, prostrate hair.

. Length seven-tenths of an inch.

Readily distinguishable by the regular series of hair on the elytra. Inhabits Pennsylvania, and I observed it on the Missouri. Mr. Nuttall brought specimens from Arkansa.

4. M. pilosicollis. Pale reddish-brown, hairy; thorax and base of the elytra with longer hair.

Inhabits the United States.

M. pilosicollis, Knoch in Melsh. Catal.

Body reddish-brown, covered with dense yellowish cinereous hair: head with elongated hair; anterior edge entire, rounded, reflected; punctures dilated, shallow, dense: antennæ with scattered hairs: thorax with elongated hair and dilated, shallow, dense punctures; lateral edge dilated in the middle, subangulated; striæ none; scutel punc-

tured, hairy, rounded at tip: elytra pale testaceous, densely and equally punctured, and covered with short, reflected, dense hair, and with longer hair at base: pectus and postpectus with long hair.

Length half an inch.

An inhabitant of various parts of the United States. I observed it on the Missouri and Arkansa. It may be readily distinguished from our other species by the remarkably hairy appearance of the body, and particularly of the head, thorax, base of the elytra, and breast. I can hardly suppose this species to be the *tristis* of Fab. although the hairy appearance of the thorax corresponds with the description of that insect; but the elytra are punctured and hairy, and the scutel is not white; whereas the elytra of *tristis* are said to be glabrous, and the scutel white.

5. M. vespertina. Chesnut-brown; clypeus truncate, acutely emarginate each side; elytra sulcated, grooves punctured.

Inhabits the United States.

M. vespertina, Mclsh. Catal.

Head truncate before, margin a little reflected, punctures dense, a minute acute emargination each side near the tip: thorax with dense profound and subequally distributed punctures: scutel punctured, rounded at tip: elytra with dilated, shallow, confluently and irregularly punctured grooves; interstitial lines narrower than the grooves, elevated, convex: beneath subglabrous, punctured.

Length nearly two-fifths of an inch.

Mr. Nuttall obtained several species on the Missouri; it is also found in the Atlantic states. It varies in colour, being perhaps generally light chesnut-brown; but it is sometimes dark chesnut, and I have a specimen that is nearly black.

6. M. sericea. Dusky, iridescent; elytra concavely striated.

Inhabits the United States.

M. sericea, Knoch in Melsh. Catal.

Body light reddish-brown, castaneous, dark-brown, or blackish, strongly iridescent: clypeus densely punctured; with sparse hairs; edge very slightly reflected, anteriorly emarginate: thorax with numerous small, nearly equal, and subequally distributed punctures; lateral edge not dilated in the middle: scutel longer than wide, densely punctured each side nearly to the tip; a longitudinal elevated line; elytra concavely striated, striæ confluently punctured: anterior tibia bidentate.

Length about seven-twentieths of an inch.

This insect is beautifully iridescent, and by this character is readily distinguishable from all other North American insects of this genus that I have seen, with the exception of the *M. iricolor*, Nob. which is much smaller, black, and hairy on the head and thorax.

It is an inhabitant of Pennsylvania, and we obtained specimens near Council Bluff on the Missouri river.

7. M. iricolor. Blackish-brown, iridescent; with short hair.

Inhabits the United States.

M. micans, Knoch in Melsh: Catal.

Body blackish, distinctly iridescent: head hairy, punctured: clypeus on the anterior margin reflected and emarginate at tip: antennæ bright yellow: thorax punctured, with short, numerous, yellowish hairs; a longitudinal, dilated, slightly indented line: elytra finely iridescent, with dilated, punctured, impressed striæ: posterior feet robust.

Length less than one-quarter of an inch.

Knoch's name micans is pre-occupied. My excellent and ingenious friend Mr. John F. Melsheimer, makes the following remarks on this insect in a letter to me: "This insect is very nearly related to M. sericea, but it is still sufficiently distinct, to entitle it to the rank of a peculiar species. It abounds in hilly and mountainous situations, where, in the month of May, the time of the sexual union of the species, it may be seen flying about amongst the whortle-berry bushes, in such profusion, that in a very short time any number desired might be collected: whenever a female alights upon the surface of the ground, she is immediately surrounded by a number of males."

8. M. 10-lineata. Above covered with a yellowish down; thorax trilineate, and elytra quadrilineate with white.

Inhabits Missouri.

Body reddish-brown, covered with a very short spiniform down: clypeus quadrate, slightly wider at tip and truncate, emarginate in the middle; down yellowish, dusky on the tip, and whitish above the eyes: antennæ pale yellowish-brown, glabrous: clava elongated, and composed of seven lamina: thorax with yellowish-brown, and three longitudinal lines of white down, of which the lateral ones are interrupted near the anterior tip: scutel with white down, and glabrous margin: elytra with yellowish down; a common sutural line, and three others upon the disk of each elytron of white down; an abbreviated oblique white line from the humerus: pectus and postpectus hairy: feet castaneous, with white down; thighs, and intermediate, and posterior tibia, hairy behind; venter with white down, more dense upon the margins of the segments and in triangular spots each side.

Length nearly one inch.

A large and beautiful insect, which I first saw above the Pawnee villages on the Platte; several other specimens, however, occurred during our journey to the mountains. Its colour varies from a light chesnut to a black; but the downy or spiny vesture is immutable, though it is very deciduous.

It seems to be closely allied to the M. occidentalis; but if Oliver's description of that insect be correct, it is sufficiently distinct. According to him, that species has sometimes only "une ligne

longitudinale, blanche, au milieu du corcelet," and the scutel is "marqué de deux taches blanchâtres;" whereas our insect has always three thoracic lines, and but a single scutellar spot.

Mr. Nuttall also obtained specimens of this in-

sect on the Arkansa.

### LUCANUS, Lin.

L. parallelus. Mandibles one-toothed; elytra striate, punctured.

Inhabits the United States.

L. parallelus, Knoch in Melsh. Catal.

Body dark reddish-brown, with dilated punctures: mandibles with an elevated conic tooth arquated inwards, situated on the middle of the superior inner edge, and a smaller tooth on the middle of the inferior inner edge: elytra punctured, striate, striæ with much dilated punctures; humeral angle mucronate: tibia, anteriors from four to seven-toothed, interior and posterior ones one-spined on the middle.

Length four-fifths of an inch.

Female destitute of the tooth of the mandibles.

Very distinct from L. parallellipedes by the striated elytra. It is not uncommon in the Atlantic states, and as far west as the Rocky Mountains.

## PLATYCERUS, Latr.

P. securidens. Mandibles at tip securiform, and about six-toothed; elytra striate.

Inhabits the United States.

Lucanus platycerus, Melsh. Catal.

Body blackish or dark reddish-brown, tinged with brassy, punctured: mandibles as long as the head; inner side with a robust emarginate tooth at base; an unarmed excavated interval in the middle, and a dilated somewhat securiform tip, armed with about six small teeth; exterior edge with a rounded lobe at base, and elevated angle near the tip: thorax margined, not distinctly sinuous before the posterior angles: elytra punctured; striæ almost obsolete and punctured: anterior tibia with more than ten inequal very acute teeth.

Length two-fifths of an inch.

Very closely allied to Lucanus caraboides, and may possibly prove to be only a variety of that species; but as far as I have had an opportunity of comparing specimens, it differs from caraboides in colour, in being rather more robust, and in being destitute of the obtuse sinus or truncation near the posterior angles of the thorax, which is observable in that species. The mandibles of the female are shorter than those of the male, the inner edge sometimes merely dilated and rectilinear,

terminating in an angle near the tip; the lobe on the exterior edge, also, is not apparent.

It inhabits as far west as the Rocky Moun-

## ZOPHOSIS, Latr.

Z. reticulata. Black; posterior angles of the thorax elongated; elytra irregularly reticulate.

Inhabits near the Rocky Mountains.

Clypeus emarginate before: antennæ a little larger towards the tip; the three exterior joints not rounded but truncated at tip, the ultimate one subacute at tip, precisely resembling the corresponding joint of Eurychora as represented by Herbst, (pl. 5.) and not larger than the preceding joint: palpi, terminal joint a little larger than the preceding one: mentum widely emarginate, narrower at base, not concealing the base of the maxillæ so much as that of Pimelia bipunctata: thorax curvilinearly emarginated before for the reception of the head; punctures very minute, distant; anterior angles obtuse, somewhat prominent; margined each side; posterior angles elongated, acute, closely embracing the humeral angles: scutel none: elytra with obtuse, elevated, irregular, somewhat reticulated lines.

Length nearly three-fifths of an inch.

Several specimens of this interesting insect occurred under dried bison dung near the Rocky Mountains. They were generally pruinose, or more or less covered with a whitish powder. In form they agree perfectly with the present genus, but the mentum is rather too narrow, and the terminal joint of the palpi is rather too much dilated to correspond perfectly with Mr. Latreille's character of the genus.

## PIMELIA, Lat.

P. rotunda. Black, with a few white hairs; anterior thoracic angles prominent, acute.

Inhabits Arkansa.

Body rounded, black, immaculate, with numerous white hairs arising from excavated punctures: head, anterior termination truncate, and much narrowed by the concavity of the lateral edge; over the insertion of the antennæ, a prominent acute angle: antennæ blackish-piceous; second, fourth, fifth, and sixth joints, equal; third slightly longer, obconic-cylindric; remaining joints more ovate, two or three terminal ones rather larger, the last acute at tip: palpi dark piceous, terminal joint truncate at tip: thorax very short and wide; anterior angles prominent, acute; punctures of the lateral margin much dilated, excavated, confluent; those of the disk smaller and distinct; lateral edge. rectilinear: elytra with profound, excavated punctures at base, and smaller and less indented ones towards the tip.

Length less than one-fourth of an inch.

This species we observed only within the distance of a hundred miles from the Rocky Mountains. In the form of the body it very closely resembles Oliver's figure of his P. inflata, the P. flavicollis of Fabricius. This new species I believe to be the first of this genus that has yet been found on this continent. The mentum is proportionally much larger than that of P. bipunctata, entirely concealing the mandibles even when viewed laterally, affording space only for a circumscribed play of the palpi. But the antennæ differ from those of the bipunctata, which have the terminal joint smaller and shorter than the preceding, and partly included in it; this character, however, Latreille, in the Règne Animal, does not state to be essential in this genus. The proportion which the terminal joint of the palpi bears to the preceding joints, is very similar to that of the palpi figured by Oliver, Vol. 3. No. 59. Pl. 1. and although this terminal joint is proportionally larger than that of the bipunctata, yet it is not more dilated than that of Tentyria glabra, which is admitted into the same subdivision with PIMELIA.

The anterior tibia are not dentated like those of Erodius, but are furnished with small spines on the anterior and posterior edges; the form of the thorax and abdomen agree with Latreille's definition of PIMELIA in the Regne Animal.

## AKIS, Fab.

A.? muricata. Black; above with numerous small tubercles and setæ; thorax and elytra with widely reflected margins.

Inhabits Arkansa at the Rocky Mountains.

Body oblong-oval, black; superior surface armed with numerous minute tubercles, from each of which arises a small, recurved, ferruginous seta: clypeus not reflected: antenna, third joint nearly equal to the two succeeding ones conjunctly; fourth, fifth, sixth, seventh, eighth joints, obconiccylindric; ninth, tenth, eleventh, rounded, the latter somewhat larger than the preceding one, and subacute at its tip: thorax transverse, dilated, and widely reflected each side, widest behind; anterior margin very profoundly and abruptly emarginated, the emargination receiving the head to the origin of the antennæ, and rather too narrow to admit the free motion of the head upward; lateral edge simply arguated; posterior edge rectilinear in the middle, excavated each side; anterior and posterior angles subacute, the latter extending far backwards so as to cover the anterior angles of the elytra: elytra inseparably united, widely reflected each side and behind, the exterior edge continuing the course of the thoracic edge, without any indentation between them: wings none: scutel minute: tibia armed with minute spines.

Length thirteen-twentieths of an inch.

Occurred under dried bison dung, &c. near the Rocky Mountains. In addition to the above description of the antennæ, I may add that the four terminal joints are somewhat more dilated than the others. The mentum, although broader than long and emarginate at tip, is proportionally smaller than that of Scaurus striatus, permitting a view of the mandibles to the base; the palpi are decidedly more dilated at tip than those of TENTYRIA glabra; in this respect approaching the family BLAPSIDE. In form it seems to bear some resemblance to Eu-RYCHORA, but the antennæ are eleven-jointed. As it does not entirely agree with any genus the characters of which Latreille has noted, it may be proper to remove it to the Blapside, under a separate genus, which may be named Embaphion. It is still more closely allied to Heleus by its form, and indeed if external characters only were to be considered, we would certainly be justified in referring it to that genus, but the fact of the maxillæ being armed with a horny nail, excludes it entirely and absolutely from the family of which HELEUS is a member.

## ASIDA, Latr.

1. A. opaca. Black, opaque, scabrous; thorax with acute angles, and lateral reflected margin; elytra subinequal.

Inhabits Arkansa.

Body black, opaque, scabrous with minute elevated points, which furnish very minute polished hairs: antennæ, terminal joint as small as the second: thorax widely emarginate for the reception of the head; anterior angles prominent; lateral margin dilated, reflected; lateral edge arquated, excurved near the base: posterior angles very prominent, acute; posterior edge slightly deflected in the middle, recurved each side towards the angles: scutel minute: elytra with a somewhat inequal surface, destitute of distinct striæ or punctures; lateral edge acute, a little reflected at base; humeral angles acute.

Length three-fourths of an inch.

Found near the Rocky Mountains. The joints of the antennæ gradually become a little wider and shorter to the terminal one, which is less than half the size of the preceding joint. The mentum is much dilated and at tip emarginate, concealing the inferior portion of the maxillæ, with the exception of a point near their base. The form of the thorax agrees with Akis, but agreeably to Latreille's definition of that genus, it cannot have a place there.

2. A. polita. Black, polished, glabrous; thorax with acute angles and reflected lateral margin.

Inhabits Arkansa.

Body deep black, polished, glabrous; head rugose with confluent punctures: labrum with

minute black hairs above, and rufous ones on the anterior edge: thorax with minute, distant punctures; anterior edge concave; anterior and posterior angles acute, not prominent; lateral margin reflected, the edge arquated, not excurved near the base; basal edge nearly rectilinear: scutel minute: elytra slightly and irregularly rugose, destitute of punctures or impressed lines; exterior edge prominent and reflected near the base, rounded towards the tip; humeral angles acute.

Length more than half an inch.

Like the preceding species, and several of the Blars, this species occurs under dried bison dung in the extensive region bordering the Rocky Mountains. The antennæ and mentum are similar to those of A. opaca.

3. A. anastomosis. Black, covered with short whitish hairs; elytra profoundly grooved.

Inhabits Arkansa.

Body black, clothed with short, dense, yellowish-white hair: antennæ hardly attaining the base of the thorax, third joint hardly longer than the fourth, penultimate joint largest, terminal one smallest and rufous: thorax, angles subacute, anterior edge concave; lateral margin hardly reflected; edge arquated, very slightly excurved near the base; basal edge rectilinear: elytra each with three profound and concave grooves at the base, of which the sutural one extends to the tip, and the two others terminate beyond the middle,

at the origin of two other much abbreviated grooves, which are confluent before the tip: humerus not rounded.

Length nine-twentieths of an inch.

This very distinct species is much less robust than the preceding ones, and is considerably contracted at the junction of the thorax and abdomen. Under bison dung with the foregoing species.

The terminal joint of the maxillary palpi of these three species, corresponding in its dilatation and form with the definition of the Fabrician genus Blars by Mr. Latreille, in the Règne Animal, I have referred them to the genus Asida, as that to which they are most closely related, though the form of the body perhaps better agrees with Akis.

# BLAPS, Fab. Latr.

1. B. suturalis. Black; elytra scabrous, grooved, reddish-brown, punctured; lateral thoracic margin reflected.

Inhabits Missouri.

Body black, punctured: antennæ, third joint longer than the fourth and fifth conjunctly; fourth, fifth, sixth, and seventh, equal, obconico-cylindric; eighth, obconic-orbicular, shorter than the preceding; remaining ones nearly equal with the eighth, globose; the terminal one somewhat coniccompressed: labrum prominent, emarginate, and

with very short yellow hairs at tip: thorax transverse-quadrate; edge deeply concave before; lateral margin dilated, reflected; lateral edge regularly arguated, slightly excurved at base; posterior edge slightly flexuose, nearly rectilinear; angles acute, anterior ones with a small excurved point; punctures of the disk, acute, distant; two obsolete indented spots behind the middle: scutel impunctured, distinct, acute: elytra with seven grooves, the four sutural ones, each, with a single series of elevated points, remaining grooves with numerous points; a series of points on each of the interstitial lines; lateral edge reflected, slightly elevated, acute; a sutural, common, reddish-brown margin: epipleura scabrous and punctured, with four or five obsolete impressed striæ: feet scabrous, anterior thighs slightly dilated beneath before the tip into an obtuse angle.

Length about one inch.

I found several specimens of this insect in the Konza village, crawling about in the lodges, (huts.) I also met with it on our journey to the mountains.

2. B. acuta. Black; elytra scabrous, grooved, sutural margin reddish-brown; exterior edge acute; thoracic margin not reflected.

Inhabits Missouri.

Body black, punctured: head with larger punctures than those of the thorax: antennæ as in the

preceding: labrum prominent, emarginate, with very short yellow hairs at tip: thorax subquadrate; anterior edge slightly concave; punctures minute, separate; lateral margin not reflected; lateral edge slightly reflected, a little excurved at base; posterior edge nearly rectilinear: scutel impunctured: elytra grooved, the four sutural grooves with a single series of elevated points; interstitial lines with about one series of distant punctures; sutural margin obsoletely reddish-brown; exterior edge acute: epipleura obsoletely grooved, scabrous, punctured: anterior thighs dilated and armed with a prominent spine.

Length one inch and one-fifth nearly.

A fine large species, very distinct from the preceding, in not having the lateral margins of the thorax reflected.

3. B. obscura. Black; elytra scabrous, grooved, reddish-brown, margin rounded; thoracic margin not reflected.

Inhabits Missouri.

This species resembles the preceding, but the thorax is proportionally longer, and the elytra are of a dull reddish-brown colour, approaching to piceous, and the lateral margin is rounded so as to leave no edge; it is possible, however, that it may prove to be a variety. It was obtained in the country bordering the river Platte.

Length more than one inch.

4. B. hispilabris. Black; elytra scabrous, groov-

ed; sutural margin reddish-brown; labrum with black rigid hairs above.

Inhabits Missouri.

This species very much resembles the preceding, but the thorax is more rounded, and the superior surface of the labrum is furnished with short, rigid, black hairs, which are inflected.

Length from three-fifths to nearly one inch.

It is very possible that under this specific denomination, I have confounded two distinct species; but it seems probable that the three preceding species are subject to vary a little in the form of the thorax, and in size. I forbear separating them for the present.

5. B. carbonaria. Black; elytra with five or six regular series of punctures; impressed strice none.

Inhabits the margins of the Arkansa river.

Body oblong, deep black, immaculate, punctured: head acutely punctured: labrum with black, rigid hairs: thorax subquadrate, punctures smaller than those of the head, and much more distant; lateral edge regularly arquated; anterior edge very slightly concave; posterior edge nearly rectilinear, a little arquated each side near the angles, which are obtuse: scutel slightly indented near the tip, impunctured: elytra with about six regular series of punctures, which are more distant from each other than the length of their diameters; impressed striæ none; interstitial lines with a few

remote, acute, minute punctures; lateral margin irregularly punctured, rounded: thighs robust, mutic.

Length seven-tenths to four-fifths of an inch.

This species occurred near the Rocky Mountains.

6. B. extricata. Black; elytra irregularly punctured, and destitute of impressed striæ.

Inhabits Arkansa.

Body deep black, narrowed anteriorly, oblongsubovate, immaculate, punctured: head acutely punctured: labrum with rigid hairs: thorax subquadrate, punctures smaller than those of the head and more distant; lateral edge regularly arquated; anterior edge very slightly concave; posterior edge nearly rectilinear, a little arquated each side near the angles which are obtuse: scutel convex, impunctured: elytra destitute of striæ, or distinctly regular series of punctures; scabrous with minute slightly elevated points, each of which precedes a puncture; lateral margin rounded.

Length about half an inch.

This species occurs in the country of the Arkansa and Platte, near the mountains. Mr. Nuttall also obtained specimens on the Upper Missouri. It is somewhat similar to the preceding species, but is shorter, and the sculpture of the elytra sufficiently distinguish it.

7. B. obsoleta. Black; elytra striate, slightly scabrous; suture obsoletely reddish-brown.

Inhabits Arkansa and Missouri.

Body oblong-subovate, deep black, punctured: head and thorax similar to those of the preceding species: elytra with impressed striæ, which are slightly scabrous, with minute elevated points and impressed punctures; interstitial lines also punctured; sutural margin obsoletely reddish-brown.

Length from half an inch to more than three-fifths.

Like the preceding, this species inhabits the arid plains in the vicinity of the Rocky Mountains. The striæ of this insect are very obvious and impressed, and the sutural margin is reddish-brown, but this colour is sometimes so indistinct as not to be perceptible but upon close inspection. As in the two preceding species the thighs are unarmed.

8. B. tricostata. Black, with minute hairs; elytra each with three elevated lines.

Inhabits Missouri and Arkansa.

Body oblong-oval, black, immaculate, with numerous minute prostrate hairs: thorax with numerous minute punctures, furnishing hairs; transversely subquadrate; anterior edge concave; basal edge rectilinear, covering the base of the elytra; lateral edge arquated, near the posterior angles excurved; angles rounded: elytra scabrous, with small elevated points furnishing hairs; three elevated lines above; a common sutural one, and a lateral one on the edge; intermediate spaces broad, flat, not con-

cave, and sometimes with the appearance of a slightly elevated longitudinal line alternating with the others: epipleura simply scabrous.

Length three-fifths of an inch.

Not unfrequent beyond the Mississippi river. Very distinct.

9. B. opaca. Black, with minute hairs; elytra destitute of striæ or conspicuous punctures, lateral edge acute.

Inhabits Missouri and Arkansa.

Body black, opaque, oval-acute, with very minute prostrate polished whitish hairs: thorax with acute anterior, and obtusely rounded posterior, angles; lateral edge not thickened or reflected, sublinear or hardly arquated: elytra destitute of striæ and of conspicuous punctures; basal edge concave for the reception of the base of the thorax; humeral angles acute; lateral edge acute.

Length two-fifths of an inch.

The humeral angles so closely embrace the lateral base of the thorax, as to present hardly an interruption to the regularity of the lateral curve of the body.

#### PEDINUS, Latr.

P. suturalis. Black; head and thorax minutely punctured; elytra with punctured striæ, and small prostrate hairs.

Inhabits Missouri.

Head rounded; anterior emargination small labrum transverse: thorax, punctures distinct, dense: scutel rather large: elytra, striæ impressed, punctured; interstitial lines with very minute indentations, furnishing small, pale, prostrate hairs: wings none: beneath piceous-black: venter slightly granulated, with very short hairs.

Length half an inch.

I place this species in the present genus, from the circumstance of its being altogether destitute of wings, although the elytra are not united at the suture.

## OPATRUM, Fab. Latr.

O. interruptum. Blackish, with an obscure tinge of bronze; elytra with interrupted, punctured striæ.

Inhabits the United States.

Head black, finely punctured: thorax black, finely punctured, punctures distinct; an obsolete indentation each side on the posterior margin: elytra brownish, tinged with bronze, with impressed striæ irregularly interrupted, and with large impressed punctures; interstitial lines finely punctured: beneath brownish-black.

Length nearly one-sixth of an inch.

I have found this species in Pennsylvania and Arkansa.

#### CRYPTICUS, Latr.

C. obsoletus. Glabrous, black; beneath piceous. Inhabits Arkansa.

Body with very minute, hardly perceptible punctures: mouth pale testaceous: antennæ rufotestaceous, the joints all subequal in length: thorax rather large; posterior angles nearly rectangular, slightly rounded at tip; posterior edge not undulated: elytra with obsolete, hardly obvious punctured striæ: beneath piceous, more or less blackish: feet always pale piceous.

Length three-twentieths of an inch.

### TENEBRIO, Lin. Fab. Latr.

1. T. badius. Blackish-brown, oblong-oval, minutely punctured, thorax with larger punctures each side; elytra striate.

Inhabits the United States. Ohio.

Tenebrio badius, Knoch in Melsh. Catal.

Body black, with a reddish-brown tinge, and very minute dense punctures: head, anterior canthus of the eyes indented; a transverse, indented, abbreviated line between the antennæ: antennæ black-brown, terminal joint dull ferruginous: thorax transverse-quadrate; anterior angles projecting, rounded; posterior angles acute, rectangular; lateral edge prominent, arquated; larger punctures

each side near the posterior angles: elytra with indented punctured striæ; interstitial lines convex, with numerous very minute punctures: beneath dark reddish-brown.

Var. a. Reddish-brown.

Length nine-twentieths of an inch.

It is not unfrequently found in various parts of the country.

2. T. interstitialis. Blackish-brown, elongated; thorax with an indented spot behind, and somewhat dilated lateral margin.

Inhabits the United States. Ohio.

Tenebrio depressus, Melsh. Catal.

Body blackish-brown, elongated, punctured; punctures rather large, confluent: head, lateral margin reflected: thorax quadrate, with an indented spot behind the middle; anterior angles prominent, rounded at tip; lateral margin slightly reflected; lateral edge very slightly arquated; posterior angles acute: scutel rounded at tip: elytra with indented striæ, in which are dilated punctures; interstitial lines narrow and with a few minute tubercles.

Length seven-twentieths of an inch.

The tubercles which are situated upon some of the interstitial lines of the elytra, are very minute, and on some specimens nearly obsolete. It is an insect of frequent occurrence. Mr. F. V. Melsheimer named it depressus, but as it does not agree with the description of the depressus as

given by Fabricius, Oliver, and Herbst, I have appropriated to it a new designation.

3. T. terminatus. Blackish-brown; terminal joint of the antennæ fulvous.

Inhabits Missouri.

Body blackish-brown, punctured: palpi, antennæ at base, and labrum, piceous; terminal joint of the antennæ fulvous: thorax subinequal; a longitudinal impressed line; anterior edge concave: elytra profoundly striated, the striæ punctured: scutel dark piceous.

Length half an inch.

The inferior part of the body varies in its depth of colouring, but is reddish-brown. The fulyous joint of the antennæ, impressed thoracic line, and concave anterior thoracic edge, sufficiently distinguish this species from others of this country.

# DIAPERIS, Geoff. Latr.

1. D. excavata. Black; head excavated; and with two horns on the vertex; antennæ rufous.

Inhabits Arkansa.

Head with two parallel, prominent, cylindrical, piceous horns, which project forward in a line with the body, and originate between the eyes: front between the horns deeply excavated; an indentation each side before: antennæ and palpi pale rufous: mandibles black: thorax minutely punc-

tured; lateral edge nearly rectilinear, or but slightly curved; an indentation each side of the middle on the posterior margin: elytra with impressed punctured striæ: beneath punctured: feet dusky rufous or piceous.

Length less than one-fifth of an inch.

The horns disappear in the female, and are supplied by two short tubercles. This species differs from *viridipennis*, Fab. in colour, in being destitute of the two small horns on the front of the clypeus, and in the direction of the horns of the vertex, which in that species are nearly vertical. It was found by Mr. Thomas Nuttall.

2. D.? bifasciata. Reddish-brown; two bands on the elytra, and region of the scutel black.

Body reddish-brown, punctured: head reddish-black: eyes black: palpi whitish: thorax with a dusky obsolete spot on the middle, and another on each side; angles rounded; punctures very minute, dense: elytra yellowish-fulvous, with punctured striæ; a broad band in the middle, another near the tip, and scutellar region, black: feet pale reddish-brown.

Length less than one-tenth of an inch. Found at Engineer cantonment.

## CISTELA, Fabr. Latr.

1. C. amoena. Sanguineous; head, elytra, and feet, black.

Inhabits Arkansa.

Body minutely punctured: head with a transverse indented line between the antennæ: mouth beneath, excepting the palpi, pale sanguineous: elytra minutely rugose, and with punctured striæ.

Length seven-twentieths of an inch.

2. C. brevis. Black; antennæ, palpi, and feet, rufous.

Inhabits Pennsylvania.

Cistela rufipes, Melsh. Catal.

Body somewhat dilated, wide, and rather short: head indented on the front and on the hypostoma: labrum piceous: antennæ and palpi rufous: thorax with a longitudinal, submarginal, abbreviated indentation each side; posterior angles acute: elytra striate, the striæ finely punctured; interstitial lines convex: feet entirely rufous.

Length more than seven-twentieths of an inch.
This species is not the same as the rufipes of Fabricius.

3. C. basillaris. Dark chesnut-brown; elytra striate, with a pale rufous spot at the base of each.

Inhabits Pennsylvania.

C. bipustulata, Knoch in Melsh. Catal.

Head punctured: base of the antennæ, and mouth, dull rufous: thorax hardly punctured, with three indefinite indented lines on the posterior margin; posterior angles rectangular: elytra with punctured striæ and interstitial lines; basal

spot oval, oblique, extending from the humerus inwards and backwards towards the suture: beneath paler; middle of the pectus blackish.

Length one-fifth of an inch.

Altogether different from the bipustulata of Illiger.

4. C. fraterna. Dark chesnut-brown; elytra punctured, with a pale rufous spot at the base of each.

Inhabits Pennsylvania.

C. axillaris, Knoch in Melsh. Catal.

Head punctured; a transverse impressed line between the antennæ: antennæ at base, and mouth dull yellow-rufous: thorax punctured, with three indefinite indented lines on the posterior margin; posterior angles nearly rectangular: elytra punctured, destitute of striæ, excepting one near the suture; basal spot oval, oblique, extending from the humerus inwards and backwards towards the suture: beneath much paler.

Length more than three-twentieths of an inch. Resembles the preceding, but is smaller, and the elytra are not striated. The name axillaris has been employed by Paykull to designate a species altogether different from this.

5. C. sericea. Pale testaceous, immaculate; elytra obsoletely striated near the suture.

Inhabits the United States.

Eyes black: mandibles black at tip: antennæ slightly darker towards the tip: thorax as well as

the head minutely punctured; posterior angles hardly acute: scutel quadrate: elytra minutely punctured; striæ obsolete, more obvious near the suture: beneath somewhat paler.

Length about one-fifth of an inch.

This very common insect is readily distinguished by its pale colour.

#### PYTHO, Latr.

P. pallida. Thorax with two impressed lines at base; clypeus emarginate before.

Inhabits Arkansa.

Body pale reddish-brown, very much depressed, flat above, minutely punctured: clypeus on the anterior edge concave, the angles acute, (more prominent in one sex:) thorax, anterior edge very concave; anterior angles obtusely rounded; posterior edge perfectly rectilinear; posterior angles acute; base with two impressed lines abbreviated before: elytra with punctured striæ, lateral edge slightly elevated.

Length one-fifth of an inch nearly.

This curious species was found on the banks of the river Arkansa by Mr. Thomas Nuttall.

#### ŒDEMERA, Latr.

1. Œ. ruficollis. Black; thorax rufous, with two profoundly indented spots.

Inhabits the United States.

Necydalis ruficollis, Knoch in Melsh. Catal.

Body black, with minute hairs: mouth, excepting the palpi, somewhat piceous; beneath yellow: thorax rufous, narrowed behind; two profoundly indented spots placed one each side of the base, a less profoundly indented one at base: elytra purple-black, minutely granulated; three remote elevated lines.

Length one-fourth of an inch.

Found specimens on the Missouri and near the Rocky Mountains. Mr. Nuttall also obtained them on the Arkansa.

2. Œ. fraxini. Black; thorax rufous, longitudinally oblong, narrowed behind.

Inhabits the United States.

Necydalis fraxini, Melsh. Catal.

Body blackish-brown, with minute hairs: mouth piceous: antennæ brown: thorax pale rufous, longitudinally oblong, narrowed towards the base; two very slightly indented dots before the middle, and a hardly perceptible one near the base: elytra confluently and minutely punctured, pubescent: tibia pale.

Length three-tenths of an inch.

The elytra have some very faint appearances of impressed lines. This may probably be the Necydalis thoracica of Fabr. it is certainly allied to his N. sanguinicollis.

3. Œ. vestita. Black, hairy; elytra pale brownish; feet testaceous.

Inhabits Missouri.

Body black, punctured; with dense cinereous hair: head with a dilated, transverse, indented line between the antennæ: basal joint of the antennæ very obscurely rufous: labrum obscure rufous: maxillary palpi blackish; terminal joint elongated, cylindrical: thorax subcylindric, a little dilated each side before and gradually contracting to the base, the edge at base a little excurved, an impressed dorsal line at base: scutel minute: elytra pale brownish, not attenuated at tip; densely punctured, and covered with short whitish hair: feet rufo-testaceous: tarsi dusky: thighs simple.

Length from three-tenths to two-fifths of an inch.

4. Œ. puncticollis. Black; thorax rufous, with a black spot.

Inhabits Missouri.

Body black: antennæ, two basal joints beneath pale: thorax rufous, narrowed behind, disk somewhat impressed and with a large rounded black spot: elytra minutely granulated, with three remote elevated lines.

Length about three-tenths of an inch. Very like Œ. ruficollis.

### DORTHESIA, Latr.

1. D. fasciata. Black; elytra yellowish, ovate, black at base; wings with a blackish band.

Inhabits Missouri.

Body deep black, opaque, punctured: vertex elevated into a carinated tubercle: antennæ dilated, brown, paler at base of the processes, concave before; scapus very short, dusky; flabellate processes elongated, robust: front plane: palpi obsoletely annulate with pale: thorax slightly emarginate over the scutel, an impressed, abbreviated, dorsal line: elytra reddish-yellow, subovate; exterior margin from the base to the middle, and basal margin, black: wings white, an irregular fuscous band near the tip: feet black; anterior pair pale rufous, thighs black behind; intermediate pair, tibiæ and tarsi pale rufous; posterior pair, tarsi pale rufous.

Length three-tenths of an inch nearly.

2. D. flavicornis. Black; antennæ bright yellow; elytra dark piceous, with a common pale spot.

Inhabits Pennsylvania.

Mouth with whitish hairs; mandibles pale piceous: thorax minutely granulated, with a polished oblique slightly elevated spot each side of the middle: elytra rounded at tip: a common dull yellowish cinereous spot, and tip: wings hyaline: feet dull honey-yellow, posterior pair darker.

Length less than one-fifth of an inch.

Resembles the preceding, but is smaller, destitute of the band of the wings, and of the impressed thoracic line.

# RIPIPHORUS, Bosc. Latr.

R. bicolor. Black; thorax dull rufous; elytrapale testaceous; head truncate above.

Inhabits Pennsylvania.

R. bicolor, Melsh. Catal.

Head punctured: vertex much elevated, truncated above, the superior angles rounded: antenna; —: palpi piceous: thorax dull rufous, punctured; posterior edge black: elytra pale testaceous, edged with black, excepting the exterior edge near the base; extreme tip and spot on the anterior part of the humeral tubercle, black: wings fuliginous.

Length about a quarter of an inch.

This species resembles the male of dimidiatus, Fab. and the humeratus, Fab. but the vertex of those two species, although considerably elevated, is rounded at tip, and the former has a robust spine over the middle lobe of the posterior margin of the thorax.

## ANASPIS, Geoff. Latr.

1. A. triloba. Black, covered with dirty yellowish hair; elytra with three black bands, and two spots at base.

Inhabits Missouri and Pennsylvania.

Body deep black, covered by dense, short, dull yellowish hair: antennæ testaceous, black at tip: palpi testaceous: thorax transversely quadrate; angles rounded; posterior margin lobed in the middle, lobe truncate; disk with a trilobate black spot, confluent before: scutel distinct: elytra each with a humeral and scutellar black spot, and three subequal, equidistant black fascia, the last terminal: pectus and postpectus with subargenteous hair: feet black; anteriores, tibia, and tarsi testaceous; posterior pair, tibia and tarsi piceous.

Length about three-twentieths of an inch.

Considerably resembles Mordella trifasciata of Melsh. Catal. but the species here described has three distinct bands of yellowish hair, the last one of which is not terminal, and the ground colour of 3-fasciata is yellow.

2. A. 4-punctata. Black; each elytron with two cincreous points.

Inhabits Missouri.

Head and thorax densely covered with brownishcincreous, silky hair: clytra each with two cincreoargenteous approximate points, rather beyond the middle of each elytron, the exterior one somewhat linear, and a smaller obsolete subsutural one near the base.

Length three-tenths of an inch.

# MORDELLA, Lin. Latr.

1. M. bidentata. Brown, varied with cinereous; scutel bidentate.

Inhabits Missouri.

Body light brown, covered with short dense hair: head dusky, with cinereous hair: palpi pale rufous: thorax with cinereous lines somewhat radiating from the middle of the anterior margin: scutel profoundly emarginate at tip, the angles dentiform, acute: elytra brown varied with cinereous; a sutural line, a subterminal arc, one or two abbreviated basal lines, and about three linear spots rather beyond the middle placed 1, 2, of which the inner one is confluent with the sutural line, cinereous, tip angulated or slightly mucronate at the suture.

Length seven-twentieths of an inch.

The largest species that I have seen native of this country.

2. M. scapularis. Black; elytra with a large ferruginous spot on the base of each.

Inhabits the United States.

Mordella bimaculata, Melsh. Catal.

Head and thorax with obscure yellowish hair:

antennæ at base, labrum, and palpi rufous: elytra with black hairs, and an oval spot of ferrugi ous hairs, situated near the base and extending obliquely from the humerus towards the suture: tarsi and anterior tibiæ, and venter, particularly towards the tip, rufous.

Length less than one-fifth of an inch.

Fabricius has applied the name bimaculata to a different species; I have therefore changed the name.

3. M. marginalis. Black; head before and thorax dull rufous.

Inhabits Pennsylvania.

Hypostoma and inferior part of the front dull yellow-rufous: antennæ black: thorax dull yellow-rufous, with a black quadrate oblong spot extending from the middle to the scutel, and another at each lateral angle: elytra immaculate: beneath dull golden sericeous.

Length more than three-twentieths of an inch.

## ANTHICUS, Payk. Leach.

1. A. cinctus. Dark rufous; elytra black, rufous at base, a cincreous band before the middle.

Inhabits the United States.

Body duský rufous: antennæ duský towards the tip: eyes deep black: thorax subbilobate, contracted rather behind the middle, anterior lobe suborbicular: elytra hirsute, punctured, black, base

rufous; a band before the middle and terminal spot cinereous: feet blackish, rufous at base: venter black.

Length more than one-eighth of an inch.

Var. a. Destitute of the terminal cinereous spot.

2. A. basillaris. Rufous; elytra black, rufous

at base.

Inhabits the United States.

Notoxus melanocephalus? Melsh. Catal.

Eyes deep black: thorax broadest before the middle, and narrowed by an almost straight line to the posterior angles: elytra punctured, blackish; base somewhat gibbous and rufous: postpectus and venter piceous.

Var. a. Head blackish.

Size of the preceding nearly.

Resembles the preceding, but the thorax is not so much contracted behind the middle.

# HORIA, Fab. Oliv.

H. sanguinipennis. Body black; elytra sanguineous, immaculate.

Inhabits Pennsylvania.

Body short, robust, deep black, scabrous, with dense punctures: head lobate at the basal angles, with a slightly elevated, longitudinal, glabrous line on the front; antennæ impunctured; third joint as large or larger than the first; terminal joint

acuminated from its middle: mandibles glabrous, and with the palpi impunctured: thorax transverse-quadrate, very obtusely rounded behind: scutel conspicuous, rounded behind, punctures more minute than those of the thorax: elytra very flexible, sanguineous, immaculate: feet punctured; nails denticulated on the middle, tip and base simple.

Length more than two-fifths of an inch.

This species is an interesting addition to the catalogue of North American insects, as it is the only one of its very limited genus, yet found here. It must be rare, only a single specimen having yet occurred. It is very distinct from the three or four species already known.

# MELOE, Lin. Latr.

1. M. angusticollis. Thorax narrower than the head; elytra and abdomen violaceous.

Inhabits Pennsylvania.

Body dark violaceous, punctured: head with profound punctures, an impressed, longitudinal, abbreviated, acute, frontal line; and a transverse, elevated, obtuse one connecting the bases of the antennæ: thorax slender, narrower than the head, profoundly punctured, widest rather before the middle, and narrowed at tip and base; base emarginate, and slightly margined: elytra rugulose, dark bluish-violaceous: feet slightly hairy, spines

of the tibia, and nails ferruginous: abdomen slightly rugulose, dark greenish, or violaceous: tergum each side black, opaque.

A rare species, very distinct from the M. americana of Leach, which is not uncommon, and is sometimes gregarious in great numbers; the thorax of angusticollis is strikingly narrower proportionally, as well as the head, than the body; and the colours of the insect are more violaccous. When taken, it diffused an odour very similar to that of some BLATTÆ.

2. M. conferta. Black, with dense punctures; antennæ regular.

Inhabits Missouri and Arkansa.

Body black, opaque, punctured; punctures crowded, concave, equally distributed, confluent, furnishing short black hairs: head with separated punctures on the anterior part of the front, distant ones on the clypeus, and remote ones on the labrum: antennæ regular: thorax as wide as the head, emarginate at base; sides very slightly arquated, hardly narrower at base; a longitudinal, dorsal, acute, impressed line: elytra scabrous, with minute elevated points, and numerous short black hairs.

Length, male half, female four-fifths of an inch.

Perfectly distinct from the preceding species, and from the americana, by the very dense and equally distributed punctures of its head and tho-

rax, and by its minutely scabrous elytra. Found in the vicinity of Council Bluff, and near the Rocky Mountains.

[TO BE CONTINUED.]

Description of a new Species of Cephalopode of the Genus Loligo. By C. A. Lesueur. Read February 3, 1824.

#### LOLIGO, Lam.

L. brevipinna. Sac short, thick, cylindric anteriorly; subcompressed, obtuse, and rounded posteriorly; fins narrow, rounded, distant.

· Inhabits near the coast of the United States.

Length of the sac two inches and nine lines; diameter at its opening one inch; width at the middle of the fins one inch and two lines; distance between the fins about nine lines; length of the fins one inch and seven lines; distance between the lateral extremities of the fins two inches and four lines: fins narrow, rounded, half the length of the body, and differing from those of the other species described in the Journal, by being distant at their superior origin, and by the circumstance of their lateral edges being rounded, and not arquated. Sac deeply emarginate before, for the